

OCCUPATIONAL MEASURES OF FORMER NCAA ATHLETES AND TRADITIONAL
STUDENTS

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ABSTRACT

Amy Bonfiglio: Occupational measures of former NCAA athletes and traditional students
(Under the direction of Erianne Weight)

There has been much debate about whether intercollegiate athletics fits into the educational mission of higher learning (McCormick & McCormick, 2008; Sack & Staurowsky, 1998). This study utilized the educational value of intercollegiate athletics (Brand, 2006) as a conceptual framework to determine the alignment of intercollegiate athletic participation with the goals of higher education. A survey of former student-athletes and non-athletes from a renowned public university in the Southeastern United States revealed the differences in occupational outcomes, such as, job satisfaction, salary, and work engagement, between these two cohorts. The results of this study will add to the literature examining the occupational impacts of intercollegiate athletics participation. It will also add to existing literature by helping to support the argument that college athletics prepares student-athletes for the workforce.

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CHAPTER 1

INTRODUCTION

In light of a number of recent events in college athletics, the educational value of intercollegiate athletic participation has been under heightened scrutiny. As of January 2015, there were 20 universities under investigation by the National Collegiate Athletic Association (NCAA) for academic fraud (Strauss, 2015; Wolverton, 2015). A number of educators and investigators have debated the role of athletics within colleges and universities. Some have maintained that athletic participation has a positive effect on growth of interpersonal skills, relationships with peers, and leadership development (Astin, 1993; Ryan 1989); a positive impact on students' personal and social well-being (Cantor and Prentice, 1996); and an increase in students' commitment to their academic institution (Astin; Aries, McCarthy, Salovey, & Banaji, 2004). Myles Brand, the fourth president of the NCAA, felt passionately about the educational value of intercollegiate athletics participation. He declared that, "participation in college sports enhances the educational experience of student-athletes and that such educational value is the only rational reason for the continued support of intercollegiate athletics in higher education" (qtd. in Renfro, 2012, p. 33).

According to other researchers, the demanding schedules associated with athletics participation can force student-athletes to pay less attention to academics (Meyer, 1990; Parham, 1993; Smith & Willingham, 2015), which in turn makes it difficult for them to devote adequate time to studying in order to earn good grades and get the most out of their educational experience

(Cantor and Prentice, 1996; Smith & Willingham). Another major issue plaguing college athletics is the over-commercialization of college sports. The rise in popularity of Division I football and men's basketball, especially games involving teams in the Power 5 Conferences, has given way to a "commercial/education" model for these sports (Mitten & Ross, 2014). The increased commercialization of college athletics has become an issue as university leaders allow this widespread commercialization to trump, rather than serve, the underlying goals of higher education (Mitten & Ross). Authors and lawyers Amy and Robert McCormick have been outspoken about the effects of commercialization on student-athletes education. According to McCormick and McCormick (2008),

Many NCAA rules, including those shaping academic requirements and the grant-in-aid, are structured to further universities' commercial interests by enabling them to field talented teams rather than by promoting the players' academic concerns and are bald evidence of the commercial nature of Division I college sports. (p. 506)

Another issue affecting college athletics is the exploitation of student-athletes. Some of the big-time college athletic programs generate billions of dollars in annual revenue, but currently the players' athletic scholarship can be less than the full cost of attendance at their particular institutions (Mitten & Ross, 2014). This has led many to believe the commercial model of big-time intercollegiate athletics is contributing to the academic and economic exploitation of student-athletes (Mitten & Ross; Sack & Staurowsky, 1998). The student-athletes who are most directly responsible for generating revenue, i.e. football and men's basketball players, are most likely to be exploited economically (Hawkins, 2010; Singer, 2008; Smith, 2007; Southall, Hawkins, & Polite, 2012). Jay Bilas, an ESPN analyst and former basketball player at Duke University, has been very outspoken about his views of student-athletes being exploited. According to Bilas, "players are not mistreated but they are exploited. Anytime you make money off another, while at the same time restricting that person from making money in that same

enterprise, you are by definition exploiting them... It's exploitation, pure and simple" (qtd. in Fowler, 2014, p. 1). Now, more than ever, it is important to explore the educational experiences of varsity athletes.

Statement of Purpose

The purpose of this study is to determine whether intercollegiate athletics participation has an effect on occupational functioning, specifically looking at job satisfaction, salary, and work engagement. This study will also aim to determine the educational value of intercollegiate athletic participation on careers from the prospective of former student-athletes compared to non-athletes who are mid to late career (graduated from college between 1975 and 2005).

Research Questions

Based on the review of literature, the following research questions guided this study:

RQ 1. Is there a difference in salary, occupational satisfaction, or salary between athletes and non-athletes?

RQ 2. Are there clusters of industry sectors that athletes tend to work within?

RQ 3. Are there differences in RQ1 between higher profile sport student-athletes and lower profile sport student-athletes?

RQ 4. Does intercollegiate athletic participation lead to higher levels of educational satisfaction than non-athletes?

RQ 5. Are there trends in occupational satisfaction, or work engagement between athletes and non-athletes over time?

Assumptions

1. Study participants completed all surveys voluntarily and understood all questions in a similar manner.
2. All surveys were answered truthfully and accurately.

Definition of Terms

1. **Higher profile sport:** Varsity level programs that are more likely to receive more television and media exposure, and have higher ticket sales (i.e. men's basketball and football, and sometimes ice hockey) (Schulman & Bowen, 2002).
2. **Job (occupational) satisfaction:** how people feel about their jobs and different aspects of their jobs. The extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs (Spector, 1997).
3. **Lower profile sport:** Varsity level sport other than men's and basketball and football (and sometimes ice hockey) (Schulman & Bowen, 2002).
4. **Non-student-athlete or traditional student:** Anyone who did not participate in a varsity level athletic team for at least one full season at a four-year institution.
5. **Student-athlete:** An individual who participated on any varsity athletic team for a minimum of one academic year at a four-year college or university.
6. **Work (employee) engagement:** A positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption. Refers to a persistent and pervasive affective-cognitive state that is not focused on any particular object, event, individual, or behavior (Schaufeli & Bakker, 2003).

CHAPTER 2

REVIEW OF LITERATURE

Educational Outcomes of Participation in Intercollegiate Athletics

While critics claim that intercollegiate athletic participation has a negative effect on the educational experience of student-athletes, numerous studies show otherwise. In fact, in some situations, student-athletes fair better (Aries, McCarthy, Salovey, & Banaji, 2004), or just as well (Aries, et al., 2004; Hood et al., 1992; Pascarella and Smart, 1991; Stuart, 1985), as their non-athlete peers. Other studies report that athletic participation reduces academic success, and that athletes do not score as high as the overall student population on academic metrics. (Long & Caudill, 1991; Maloney & McCormick, 1993). More research needs to be done in order to determine the impact of intercollegiate athletics on educational outcomes.

Academic Measures

Maloney and McCormick conducted a study to answer the question: “to what extent does intercollegiate athletic participation affect academic success?” They analyzed academic records at Clemson University over a four-year period (1985-1988). Grade point averages (GPA) are often one of the first things that critics will cite in an attempt to prove that intercollegiate athletic participation hinders educational outcomes. The results of this study showed that the average GPA for athletes was 2.379 and that the average GPA for the overall student body was 2.681. The average GPA for athletes was lower by a statistically significant margin than the average GPA for the overall student body. The GPAs of the athletes in each sport were lower than the

overall student body with four exceptions; women participating in tennis and track did not have GPAs different from the overall student body and women participating in swimming and volleyball had higher GPAs than the overall student body with 2.845 and 2.885 respectively compared to 2.681 (Maloney & McCormick, 1993).

Along with GPA, graduation rates are another area in which student-athletes are often compared to non-athletes. Patrick Rishe conducted a study that compared the graduation rates of student-athletes to the general student body utilizing a sample of all Division I schools that had complete data. The results showed that the graduation rate for student-athletes was 58.15% compared to a graduation rate of 54.62% for all other undergraduates. Athletes also outperformed undergraduates in all categories. For example, black female athletes had a graduation rate of 58.86% compared to a rate of 44.92% for black female non-athlete undergraduates (Rishe, 2003). The results of this study suggest that intercollegiate athletic participation can play a positive role in academic achievement.

There are a number of criteria other than GPA that have been utilized to compare athletes and non-athletes. For example, when Pascarella and Smart conducted a study using the Cooperative Institutional Research Program Survey to test the benefits derived from participating in college athletics in 1991, they found that male athletes had improved interpersonal and leadership skills and were more motivated to complete a degree (Francois, 1998; Pascarella & Smart, 1991).

University Learning Outcomes

The University of Learning Outcomes Assessment (UniLOA) is a nationally normed, highly reliable and valid measure of student growth, learning, and development (GLD) beyond academics (UniLOA, 2010). The GLD measure looks at seven areas that are considered critical

to employers, academicians, managers, researchers, and accrediting agencies. The seven areas measured include critical thinking, self-awareness, communication, diversity, citizenship, membership and leadership, and relationships. The 2009-2010 National Report of Means is the third annual report of norms for the UniLOA project, which has been collecting data for over 6 years (UniLOA). The UniLOA measures behavior at key points along a student's academic lifespan, providing valuable data for college and university decision-makers.

Involvement in extracurricular activities leads to higher UniLOA scores. Students who reported holding two leadership positions hold the highest UniLOA scores. These leadership positions could include things such as being president of a club on campus or being captain of a varsity team. UniLOA domain scores are also consistently higher for students belonging to three formal organizations or activities than those belonging to more or less than three. It is important to note the results of the 2009-2010 UniLOA show that engagement in highly organized activities over the collegiate lifespan seem to impact the overall growth, learning, and development of students engaged in those activities in profound ways that are not experienced by students not engaged in these same activities. Two examples of engagement in highly organized activities in college are fraternity or sorority membership and being a part of an intercollegiate athletic team (UniLOA, 2010).

The 2009-2010 UniLOA National Report of Means also looked at national means by athletic scholarship, comparing student-athletes to non-athletes. Results of the study show that student-athletes present a dramatically different pattern of overall growth, learning, and development, with profound growth being experienced in the last two years of their collegiate experience. Both male and female student-athletes had lower means on all seven categories when contrasted with the means of non-athletes. While both male and female student-athletes report

significantly lower levels of behaviors measured by the UniLOA when they enter college, their overall rate of growth, learning, and development is impressive and superior to non-athlete students throughout their college careers (UniLOA, 2010).

In October 2011, the University Learning Outcomes Assessment published a report of means for Intercollegiate Athletes. One reason they stated for doing this report, is that they believe: “Reports regarding intercollegiate athletes’ college experiences are often based on anecdotal evidence derived from isolated cases that often represent events atypical to the overall population of student-athletes. This report presents data-based results that are far more appropriate to apply to that overall population” (2011, p. 2).

According to the results of this study, student-athletes enter college with a considerably lower frequency of behaviors consistent with the domains of growth, learning, and development measured by the UniLOA, with the exception of critical thinking, than non-student-athletes. It is important to note that this study also shows that student-athletes’ growth trajectory is considerably higher in magnitude than non-athletes throughout their college careers. In fact, the rate of growth in the first semester alone suggests substantial growth for student-athletes when contrasted with their non-student-athlete peers. These results speak volumes about the educational outcomes and value of intercollegiate athletic participation. This study in particular shows that while student-athletes as a cohort do not necessarily come into college with the same level of skills as their non-athlete peers, they end up benefiting more from their college experience than a majority of traditional students (UniLOA, 2011).

Occupational Outcomes

Job satisfaction has been defined and studied in a number of different ways. One of the most widely accepted definitions of job satisfaction comes from Edwin Locke (1976), who

defined it as "...a pleasurable or positive emotional state resulting from the appraisal of one's job or experiences" (p. 1304). The way an employee thinks and the way an employee feels related to their work plays an important role in their overall job satisfaction. Job satisfaction assessments utilizing anonymous surveys became popular in the 1930s (Locke, 1976). Career satisfaction is an important topic in career research as subjective feelings of success are related to many aspects of work behavior and wellbeing (Abele & Spurk, 2009; NG, Eby, Sorensen, & Feldman, 2005; Spurk, Abele, & Volmer, 2001).

One of the most notable job satisfaction models is Edwin A. Locke's Range of Affect Theory (1976). The theme of this theory is that satisfaction is determined by a discrepancy between what a person wants from a job and what the person gets from a job. The theory goes on to state that how much one values a specific facet of work, such as the degree of autonomy a position provides, determines how satisfied or dissatisfied the individual is when their expectations are or are not met. Locke hypothesized that employees weigh facets differently when they are assessing job satisfaction (Locke, 1976). According to Locke, the common dimensions of job satisfaction are: "work, pay, promotions, recognition, benefits, working conditions, supervision, coworkers, company, and management" (Locke, p. 1302).

Career satisfaction is often seen as a central indicator of one's subjective career success (Gunz & Heslin, 2005; Gunz & Mayrhofer, 2011; Morgeson, Dierdorff, & Hmurovic, 2010). Research related to job satisfaction is important as one common research finding demonstrates that job satisfaction is correlated with life satisfaction (Rain, Lane, & Steiner, 1991). In fact, this correlation appears to be reciprocal, meaning that people who are satisfied with their life tend to be satisfied with their job, and that people who are satisfied with their job tend to be satisfied with their life (Rain et al.).

In a study conducted by Spurk, Abele, & Volmer (2014), career satisfaction was measured 15 years after graduation. The authors selected this point in the subjects' careers, because they determined that this is when occupational socialization is vastly completed. Occupational socialization is defined as the learning of skills necessary to demonstrate competence within a context of employment. These skills include those acquired through training, informal work norms, and peer-group values and relationships. (Marshall, 1998). This study utilized the career satisfaction scale (CSS). The CSS measures career satisfaction areas such as achieved success, overall career goals, goals for advancement, income, and development of new skills. The results of this study showed that the variables measured by the CSS were different for the four different occupations that were being studied: physicians, economists, engineers, and teachers (Spurk, Abele, & Volmer, 2014).

According to Paul E. Spector, the creator of the Job Satisfaction Survey (JSS), which was utilized as a scale for this research, more studies have been done on understanding job satisfaction than any other variable in organizations (Spector, 1985). Job satisfaction is associated with a number of behaviors and outcomes for employees that provide implications for personal and organizational wellbeing. Today most researchers focus on cognitive processes than on underlying needs when assessing job satisfaction.

When assessing job satisfaction, it can be considered a global feeling about the job or as a constellation of attitudes about various facets of the job. The facet approach, which is utilized by Spector's scale, provides a more comprehensive picture of an individual's job satisfaction than the global approach. It is important to note that job satisfaction and its effects are the result of complex interactions between individuals and organizations (Spector, 1985).

Since the turn of the century, people have started paying closer attention to positive psychology, the scientific study of human strength and optimal functioning (Schaufeli, Bakker, & Salanova, 2006; Seligman & Csikszentmihalyi, 2000). Work engagement is one of these positive aspects that have become increasingly more important. Work engagement has been defined as:

Engagement is a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption. Rather than a momentary and specific state, engagement refers to a more persistent and pervasive affective-cognitive state that is not focused on any particular object, event, individual, or behavior.... (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002, p. 74).

Schaufeli and Bakker utilized the definition above to create a self-report questionnaire, the Utrecht Work Engagement Scale (UWES), which looks at three areas that make up work engagement: vigor, dedication, and absorption. Work engagement is characterized by the authors as displaying a high level of energy and strong identification with one's work (Schaufeli & Bakker, 2003). Schaufeli and Bakker conducted structured qualitative interviews with a heterogeneous group of Dutch workers who scored high on the UWES. The results of these interviews showed that engaged employees are active workers, who take initiative at work and generate their own positive feedback (Schaufeli, Taris, Le Blanc, Peeters, Bakker, & De Jonge, 2001). In addition, these employees' values seem to match well with those of the organization that they work for.

Work engagement is a construct which generally has a positive correlation to job satisfaction. A meta-analysis shows a .22 correlation between job satisfaction and engagement (Harter, Schmidt, & Hayes, 2002). In a Gallup poll conducted in 2014, less than one-third

(31.5%) of U.S. workers surveyed reported being engaged in their jobs. While this may sound low, the average is up approximately two percentage points from 29.6% in 2013 and is also the highest rating since 2000, when Gallup first started tracking engagement levels of the working population in the U.S (Adkins, 2015). Engaged employees, according to Gallup are those who are involved in, enthusiastic about, and committed to their work and workplace. One potential reason for the increase in overall work engagement is that managers are putting a greater focus on engaging their employees as part of their obligations to their employees (Adkins).

Athletes versus Non-athletes

The key empirical findings of a study conducted by Shulman and Bowen on the three cohorts of athletes and non-athletes show that college athletics participation may have an impact on occupational outcomes. For example, results of the study showed that male athletes consistently earned more than their non-athlete peers (Shulman & Bowen, 2002). The average earnings of former athletes exceeded the average earnings of non-athletes at large in the 1951, 1976, and 1989 cohorts. This pattern was found at every type of school present in this study, including co-ed liberal arts colleges and Division IA public universities. The consistent differences were on the order of 10 percent (Shulman & Bowen). The earnings advantage for former male athletes does not occur in all occupations, however. There was no significant difference in the average earnings on athletes and non-athletes in the sectors of medicine and law. The authors speculated that male athletes tended to work in, and earn more in, financial services than non-athletes. The authors attributed this to personal traits associated with being an athlete such as: competitiveness, discipline, goal setting, ability to take direction, and work in teams (Shulman & Bowen).

An interesting finding related to the male athlete cohort is that earnings of male athletes were not associated with how many years they played their sport in college. The authors hypothesized that earnings advantages realized by male athletes were related to who they were, what they had already learned, and what they wanted to do when they entered college, as opposed to the amount of “training” they received while playing college sports (Shulman & Bowen, 2002). One exception to this was seen in a small number of high profile athletes who played their sport in college for four years. These athletes earned significantly more than their teammates, which the authors contributed to a “celebrity” effect. The male athletes who competed for four years in high profile sports are more likely to be well known by alumni and other individuals in influential positions (Shulman & Bowen).

Results of this study show that former female athletes experience a number of advantages over their non-athlete peers. Women in the 1976 cohort were more likely to be working full-time than their non-athlete peers, and they were more likely to earn advanced degrees (Shulman & Bowen, 2002). Female athletes also saw an earnings advantage over their female non-athlete classmates. In the 1976 cohort, female athletes working in the for-profit sector not only earned more than their non-athlete peers they also had a larger earnings advantage than their male counterparts. The authors hypothesize that the 1976 cohort is unique because these female athletes were rarely recruited, and that they had to meet the same admissions requirements as all other female students. Female athletes in the 1989 cohort did not enjoy any earnings advantages over their non-athlete peers. The authors believe that this is due in part to female student-athletes being recruited more heavily, being permitted to enroll with weaker academic profiles, and that they went on to underperform academically (Shulman & Bowen).

A study conducted in 2013 aimed to examine how college athletic participation affects career success in the first decade after graduation. The authors of this study predicted that student-athletes would develop higher levels of emotional intelligence and mentoring skills as a result of their college athletic participation. They believed this would lead to higher starting salaries upon entering the workforce and faster rates of salary growth throughout their careers. The results of this study found that former college athletes score higher on measures of emotional intelligence and mentoring and have higher salaries during the first ten years of their careers than their non-athlete peers. The authors of this study believe that the activities that college students participate in outside the classroom are equally important to things such as educational level, quality, prestige, and academic major when predicting future success in the workplace (Sauer, Desmond, & Heintzelman, 2013).

In a 40-year longitudinal study of 450 boys, Snarey and Vaillant (1985) found that intelligence measured by IQ, was only marginally related to how well boys performed at work as adults. Work performance was closely related to their ability to handle frustration, control emotions, and get along with other people (Sauer et al., 2013, Snarey & Vaillant, 1985). Since we are aware that college athletics participation offers opportunities to develop teamwork and relationship building skills, which are beneficial in the workplace (Sauer, et al., Wayne, Linden, Kraimer, & Graff, 1999), we can anticipate that athletic participation will have an impact on career success.

Along with career satisfaction, this study looks to determine whether former student-athletes have higher salaries than their non-athlete peers. During the 1970-1971 academic year, the Cooperative Institutional Research Survey (CIRP) was used to collect information from male and female college freshmen. This survey included one follow-up in 1980, ten years after their

freshmen year, and six years following their expected college graduation (Henderson, Olbrecht, & Polachek, 2005, Astin, 1982). The results of this study showed that in 1980, males who participated in college athletics were estimated to earn 4% higher annual incomes than their non-athlete peers. There was no increase in income related to athletic participation among females at that time (Long & Caudill, 1991).

In a follow-up study conducted in 2005, Henderson, Olbrecht, and Polachek utilized a nonparametric approach to estimate the earnings benefit associated with athletic participation for each individual. The authors of this study found that former student-athletes earn a wage premium in business, manual labor, and military occupations. They also found that former college athletes who became teachers at the high school level were linked with lower wages (Henderson et al., 2005).

This study explores the educational value of intercollegiate athletics participation by comparing occupational outcomes of former student-athletes with non-athletes. The research hypothesis is that former student-athletes have higher levels of occupational functioning, such as job satisfaction, salary, and work engagement, when compared to their non-athlete peers. Previous research cites both positive and negative educational outcomes of intercollegiate athletic participation, which points to the importance of this study.

Conceptual Framework

The conceptual framework for this study was based upon the concept of an integrated model of intercollegiate athletics within higher education (Brand, 2006a; Weight, Cooper, & Popp, 2015), which posits that intercollegiate athletics is directly aligned with the goals of higher education as it helps student-athletes develop skills to shape them into future leaders. According

to Brand, “the purpose of the collegiate model is to enhance the educational development of student-athletes” (Brand, 2006b, p. 5).

Brand contrasts the Standard View of intercollegiate athletics with the Integrated View. The Standard View, according to Brand, holds that college sports may have some redeeming developmental value for students, but it is not part of the educational experience (Brand, 2006a, p. 10). The Integrated View, on the other hand, makes athletic programs part of the educational mission of the university. Although athletics programs are not part of the liberal arts-core, they play the same role as music and art (Brand, 2006a, p. 16-17). According to Brand, “when the educational experience of student-athletes is compared with those studying the performing arts such as music, dance, and theater, as well as the studio arts, it is difficult to find substantive differences” (p. 10). The Integrated View as defined by Brand helped to guide this research related to the occupational functioning of former NCAA student-athletes.

A recent study conducted by Weight, Cooper, & Popp (2015) contributed to the literature surrounding Brand’s educational value of intercollegiate athletics in a population most directly involved in the athlete’s athletic-educational experiences. This study utilized Brand’s conceptual framework to explore the perceptions of NCAA DI coaches’ roles within the university structure and about how embracing the Integrated View would alter the structure of intercollegiate athletics. Findings were mixed on coach support for an integrated structure, but there was virtual unanimity on their role-identity as educators (Weight, et al.).

This study builds upon the notion of an integrated view and athletics as education through examination of whether the experience of intercollegiate athletics has an impact on the occupational functioning of former student-athletes by comparing them to their non-athlete peers. If there is leadership education transpiring as theorized by Brand (2006), former college

athletes may experience higher levels of occupational functioning related to areas such as job satisfaction, salary, and work engagement. A critical review of the literature related to occupational outcomes contributed to the formation of the research questions.

Individual and team sports participation provide opportunities for student-athletes to learn skills and to apply those skills in specific situations (Brand, 2006a). If the conceptual framework of this study holds, these skills will transfer to the workplace. If indeed college athletics participation offers opportunities to develop teamwork and relationship building skills, which are beneficial in the workplace (Sauer, Desmond, & Heintzelman, 2013, Wayne, et al, 1999), we can anticipate that athletic participation will have an impact on career success. In becoming proficient in their sport, student-athletes may gain skills in critical thinking and problem solving (Brand, 2006a). These skills are likely to benefit former athletes long after they leave the playing field.

One of the areas of occupational functioning that this study addresses is career satisfaction. Career satisfaction is a topic that has become increasingly more important to employers in recent years. In fact, career satisfaction is seen as a central indicator of one's subjective career success (Gunz & Heslin, 2005; Gunz & Mayrhofer, 2011; Morgeson, Dierdorff, & Hmurovic, 2010).). The study of career satisfaction is critical at this time.

While discussing the educational value of intercollegiate athletics, Brand states that, "the constructive values represented by the sports ideal can positively influence students and enable them to become productive citizens" (p.19). An example of how athletics participation can help athletes develop into productive citizens is through increased levels of emotional intelligence and mentoring (Sauer, et al., 2013).

This research also examines whether there are certain industry sectors that former student-athletes tend to work within. Research conducted by Schaufeli and Bakker related to work engagement found that highly engaged employees' values seem to match well with the values of the organization that they work for (2003). According to Brand, "intercollegiate athletics, at its best, demonstrates positive values. These values include striving for excellence, perseverance, resilience, hard work, respect for others, sportsmanship and civility, and losing – and - winning with grace" (Brand, 2006a, p. 17). If these skills translate to the workplace, it would be beneficial for companies to hire former athletes.

In a study of former intercollegiate athletes conducted by Shulman and Bowen (2002), results showed that former male athletes out-earned their non-athlete peers. The authors hypothesized that these earnings advantages were related to who they were, what they had already learned, and what they wanted to do when they entered college, as opposed to the amount of "training" they received while playing college sports. The guiding conceptual framework of this study counters this argument. This study examines the educational value of intercollegiate athletics participation better prepares athletes for the workforce than their non-athlete peers, and therefore leads to higher earnings.

This study examines the educational value of intercollegiate athletics from the perspective of former student-athletes. If the conceptual framework is supported, former college athletes may experience higher levels of occupational functioning related to areas such as job satisfaction, salary, and work engagement. The literature on the educational value of intercollegiate athletics suggests that the general student body would benefit from learning the positive values that are exhibited by student-athletes.

The review of previous literature points out that there may be job sectors in which student-athletes make more than non-athletes, such as the for-profit, business sector (Shulman & Bowen, 2002), and that there are also sectors, such as education where former athletes make less than their non-athlete peers. This study aims to bridge the gap and determine whether this is true across a broad spectrum of job sectors. This study also looks to determine whether there are any major changes in occupational functioning, such as salary, work engagement, and career satisfaction between recent college graduates and those who graduated 40 years ago, due to the ever-changing economy and the world of college athletics.

The review of existing literature also hints at Olympic sport athletes performing as well, and at times better, than revenue-generating sport athletes and non-athletes. This study aims to determine whether there is a significant difference between the career satisfaction, salary, and occupational sector of lower profile sport athletes and higher profile sport athletes. The existence of Olympic sports is being threatened as more attention is placed on Football, Men's and Women's Basketball. In an interview in April 2015, the United States Olympic committee CEO, Scott Blackmun, stated, “We are, candidly, very concerned” (Forde, 2015). If the results of this study favor lower profile sport athletes, this study could be used to help “save” lower profile sport programs from budget cuts. This would also highlight positive outcomes of intercollegiate athletic participation, as Olympic sport athletes make up a majority of the student-athlete population at most universities (McEldowney, 2015).

Since career satisfaction and career success likely work hand in hand, this research will measure the career satisfaction and career success of former college athletes, as well as, a non-athlete cohort to determine whether there is a significant difference between these two groups. The subjects of this study will be student-athlete and non-athletes who graduated 10-40 years

prior to this study, and therefore fall into the category of mid to late career. The midcareer period was selected as a result of the review of literature related to career satisfaction studies completed in the past.

CHAPTER 3

METHODOLOGY

Subjects

The subjects for this study were athlete and non-athlete graduates from a renowned public university in the Southeastern United States. Members of the target population graduated from this institution in cohorts including graduating classes of 2005 (10 years out), 1995 (20 years out), 1985 (30 years out), and 1975 (40 years out). Each cohort included the graduating classes surrounding the target graduation year in order to boost sample sizes. For example, for the 10-year cohort, graduates from 2004, 2005, and 2006 were sampled. A total of 3,936 surveys were distributed via e-mail, and 1,347 subjects responded to the survey, for a response rate of 34%.

Instrumentation

The research was conducted via survey methodology distributed via mail and electronically to former student-athletes and general students who were members of the four graduation cohorts.

The instrument for this study was a combination of two previously developed surveys, the Job Satisfaction Survey (JSS) (Spector, 1994) and a condensed version of the Utrecht Work Engagement Scale (UWES), the UWES-9 (Schaufeli, Bakker, & Salanova, 2006). Two open-ended questions and ten demographic questions were also included to obtain more information about the survey participants and to provide for a rich data set.

Each question on the survey pertains to at least one of the five stated research questions. In addition to Likert scale questions, the survey also featured multiple choice, fill-in, and open-ended questions. For example, the survey contained one question related to salary that asked respondents to write in their annual salary. The survey question related to industry sector requested that respondents select their industry or industry sector from a list of twenty options. The twenty industry sectors that were included on the survey came from the Bureau of Labor Statistics 2014 North American Industry Classification System (NAICS). The NAICS uses a production-based conceptual framework to group establishments into industries based on the activity in which they are primarily engaged. NAICS uses a six-digit coding system to classify all economic activity into twenty industry sectors (Bureau of Labor Statistics, 2014).

Data Analysis

A random sample of traditional, non-athlete students, and the entire population of former student-athletes from the graduation cohorts mentioned above from the renowned public university in the Southeastern United States were collected. Access to this sample was attained through the university alumni association database. Approximately $n = 500$ athletes and $n = 500$ general students were contacted in each of the four 3-year graduation cohorts from the institution, totaling an estimated sample population of $N = 2,000$ athletes and $N = 2,000$ traditional students.

The instrument was then distributed to each subject via a link to the survey in an email. The survey was completed online using Qualtrics. A mailer with a link to the survey was sent out a week after the initial email. This mailer served as a reminder to the participants about the survey.

After entering the quantitative data collected from the completed surveys into Statistical Package for the Social Sciences software (SPSS), various statistical tests were run to analyze the results. For research question one, One-way ANOVAs were run in order to test for significant differences between the independent variables of athletes versus non-athletes. Descriptive statistics were utilized to calculate the percentage of industry sectors that student-athletes work in for research question two. In order to analyze the relationship between industry sectors for Olympic sport athletes and revenue-generating sport athletes a One-way ANOVA was run. For the third research question, One-way ANOVAS were run utilizing the dependent variables of salary, occupational satisfaction, and work engagement. For the fourth research question, a Likert scale was utilized on the survey. This scale was used to determine the level of educational satisfaction experienced by athletes and non-athletes. One-way ANOVAS were run to determine whether there was a significant difference between the independent variables of athletes versus non-athletes. Descriptive statistics were also utilized to analyze the results to research question 5, in order to determine the patterns present in the data. A One-way ANOVA was also run to determine whether there are any trends in occupational satisfaction, salary, or work engagement between athletes and non-athletes over time.

The survey also included an open-ended question related to the effects of being an intercollegiate athlete on the career of former athletes. The results of this question yielded qualitative data. Two individuals coded these open-ended responses and the results were then compared. During this coding process, themes and patterns were identified and the results were organized into logical categories. The individuals involved in the coding process read and re-read the text in order to identify these categories

CHAPTER 4

RESULTS

Demographics

Of the athletes who responded to the survey, 64% (n=301) were male and 36% (n=171) were female. Of the non-athletes who completed the survey, 53% (n=274) were male and 47% (n=246) were female. These numbers add up to less than the 1,347 survey respondents, as data related to occupational satisfaction, salary, and work engagement were analyzed only for the respondents who indicated that they were employed full time (n=992). A majority of the athletes and non-athletes who responded to the survey reported their ethnicity as Caucasian (89%, n=422) and (88%, n=459) respectively. A complete listing of respondent demographic information is represented in Table 1.

The respondents who were currently employed full time were asked to provide their annual salary measured in thousands of U.S. dollars. After removing athletes who are currently playing their sport professionally, athletes on average earned \$34,484 more than the non-athletes who were surveyed in this study. These results can be seen in Table 1.

Table 1

<i>Demographic information</i>		Athletes		Non-athletes	
		%	n	%	n
Sex	Male	64%	301	53%	274
	Female	36%	171	47%	246

Ethnicity						
Caucasian	89%	422	88%	459		
African American	8%	37	8%	39		
Asian	2%	9	2%	11		
Other	1%	4	2%	12		
Salary						
	Mean	SD	Mean	S	F	p
	\$166,760	115	\$132,276	101	24.809	0.000

Current occupation and industry sector

Participants were asked “In which industry are you employed?” related to information on industry sectors from the U.S. Census (2014). Athlete respondents reported working in the health care field 18.18% (n=86) more than any other field. Business, 16.70% (n=79) was a close second. A large number of athletes 15.01% (n=71) selected the other category when describing their industry. Similar to business, finance and insurance 13.11% (n=62) is another industry that athletes tend to work within. The results of the industry sector for non-athletes were similar to athletes. Health care 22.93% (n=119) was the highest reported industry of employment for non-athletes. The “Other” category, an industry other than the eleven options provided, was the second highest industry sector 17.34% (n=109). A large number of non-athletes also selected working in education 11.56% (n=79) and in business 11.56% (n=60). The breakdown of the responses to the industry question can be found in Table 2.

Each respondent was asked to select his or her occupation from a list of thirteen options, including an “other” category. Of the occupations represented by the athlete respondents, 34.25% were in executive, administrative, or managerial roles (n=162), 18.60% were in professional, scientific, & technical positions (n=88), 13.96% selected the Other category (n=66), 11.63% of athletes were in sales (n=55), 8.67% of the athletes surveyed served as educators (n=41), and 5.50% of them were lawyers (n=26). The athletes surveyed in this study

also reported working in other occupations, but to a lesser degree. Non-athletes were also asked about their occupation. The number of non-athlete respondents who worked in each of the thirteen occupations and the other category were similar to the athletes surveyed. Of the non-athletes surveyed, 29.81% worked in the executive, administrative, or managerial field (n=155), 27.88% were employed in the professional, scientific, & technical careers (n=145), 12.50% reported working in an occupation other than the thirteen listed (n=65), 5.77% of the non-athletes surveyed worked in sales (n=30), 10% of non-athletes served as educators (n=52), and lawyers made up 3.65% of non-athlete participants (n=19). The breakdown of the responses to the occupation question can be found in Table 2.

Table 2

<i>Current Occupation and Industry</i>				
Occupation	<i>Athletes</i>		Non-athletes	
	%	<i>n</i>	%	<i>n</i>
Executive, administrative, or managerial	34.25%	162	29.81%	155
Professional, scientific, & technical	18.60%	88	27.88%	145
Sales	11.63%	55	5.77%	30
Educator	8.67%	41	10.00%	52
Lawyer	5.50%	26	3.65%	19
Marketing	3.59%	17	4.62%	24
Service	1.27%	6	1.54%	8
Operations	1.06%	5	1.73%	9
Transportation or material moving	0.63%	3	0.19%	1
Human Resources	0.63%	3	0.96%	5
Administrative support	0.21%	1	1.35%	7
Other	13.96%	66	12.50%	65
Industry	<i>Athletes</i>		Non-athletes	
	%	<i>n</i>	%	<i>n</i>
Health care	18.18%	86	22.93%	119

Business	16.70%	79	11.56%	60
Finance and insurance	13.11%	62	9.44%	49
Education	12.26%	58	15.22%	79
Law	5.50%	26	3.66%	19
Real estate or rental and leasing	5.50%	26	2.89%	15
Government	4.44%	21	8.48%	44
Arts, entertainment, & recreation	3.81%	18	4.43%	23
Manufacturing / construction	2.96%	14	1.73%	9
Hospitality or food services	1.48%	7	1.16%	6
Transportation	1.06%	5	1.16%	6
Other	15.01%	71	17.34%	109

Work engagement

For this study, a shortened version of the previously developed Utrecht Work Engagement Scale, the UWES-9 was used. Respondents were asked to answer nine questions related to how they feel about their current occupation. The seven-point Likert scale included (0) never, (1) a few times a year or less, (2) once a month, (3) a few times a month, (4) once a week, (5) a few times a week, and (6) every day.

The UWES-9 measures Dedication, Absorption, Vigor, and Total Work Engagement. In this study, there was a significant difference between athletes and non-athletes for three of the four measures of the UWES-9. The biggest difference between athletes ($M = 4.57$, $SD = 1.24$) and non-athletes ($M = 4.17$, $SD = 1.35$) was Vigor $F(1, 994) = 22.41$, $p = 0.000$. There was also a significant difference between athletes and non-athletes for Dedication $F(1, 999) = 16.51$, $p = 0.000$ and Total Work Engagement $F(1, 977) = 17.33$, $p = 0.000$. When testing the reliability of the UWES-9 for this study, the Cronbach's alpha, α , was equal to .921.

Table 3

Work engagement between athletes and non-athletes

	<i>Athletes</i>		<i>Non-Athletes</i>		Mean Difference	<i>F</i>	<i>p</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>			
Total Work	4.75	1.05	4.45	1.21	0.30	17.33	0.000

Engagement*							
Dedication*	4.99	1.13	4.68	1.29	0.31	16.51	0.000
Absorption	4.70	1.17	4.51	1.27	0.19	6.20	0.013
Vigor*	4.57	1.24	4.17	1.35	0.40	22.41	0.000

* $p < .001$ Note: Scale from (0) never to (6) every day

Job satisfaction

For this study, a condensed version of the Job Satisfaction Survey (JSS) was utilized. The original JSS is comprised of 36 questions related to nine facets: Communication, Contingent Rewards, Coworkers, Fringe Benefits, Nature of Work, Operating Conditions, Pay, Promotion, and Supervision. The condensed version of this scale was made up of two questions related to each of the nine facets. Participants were asked to respond to eighteen questions related to how they feel about their job. The six-point Likert scale included (1) disagree very much (2) disagree moderately, (3) disagree slightly, (4) agree slightly, (5) agree moderately, and (6) agree very much.

The JSS provides a score for each of the nine facets measured, as well as a score for total job satisfaction. For this study, scores on each of the nine facet subscales range from 2 to 12. Scores for Total Job Satisfaction can range from 18 to 108. In this study, there was a significant difference between athletes and non-athletes for seven of the nine facets measured by the JSS as well as Total Job Satisfaction. The biggest difference between athletes ($M = 81.05$, $SD = 14.90$) and non-athletes ($M = 76.06$, $SD = 14.80$) was Total Job Satisfaction $F(1,885) = 24.91$, $p = 0.000$. There was also a significant difference between athletes and non-athletes for Coworkers $F(1,955) = 20.01$, $p = 0.000$, Nature of Work $F(1,961) = 13.24$, $p = 0.000$, Pay $F(1,951) = 18.33$, $p = 0.000$, Contingent Rewards $F(1,958) = 10.26$, $p = 0.001$, Promotion $F(1,924) = 17.87$, $p = 0.000$, Communication $F(1,953) = 29.03$, $p = 0.000$, and Operating Conditions $F(1,948) =$

10.46, $p = 0.001$. When testing the reliability of the JSS for this study, the Cronbach's alpha, α , was equal to .881.

Table 4

Job satisfaction between athletes and non-athletes

	<i>Athletes</i>		<i>Non-Athletes</i>				
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	Mean Difference	<i>F</i>	<i>p</i>
Total Job Satisfaction*	81.05	14.90	76.06	14.80	4.99	24.91	0.000
Supervision	10.13	2.45	9.87	2.43	0.26	2.61	0.107
Coworkers*	10.32	1.82	9.75	2.06	0.57	20.01	0.000
Nature of Work*	10.47	1.91	10.00	2.15	0.47	13.24	0.000
Pay*	8.85	2.71	8.08	2.82	0.77	18.33	0.000
Contingent Rewards*	9.11	2.55	8.58	2.57	0.53	10.26	0.001
Promotion*	8.03	2.96	7.21	2.98	0.82	17.87	0.000
Fringe Benefits	8.34	2.84	8.09	2.61	0.25	2.09	0.149
Communication*	8.62	2.54	7.72	2.62	1.00	29.03	0.000
Operating Conditions*	7.69	2.42	7.20	2.33	0.49	10.46	0.001

* $p < .001$

Note: Scores on each of the nine-facet subscales range from 2 to 12.

Scores for total job satisfaction can range from 18 to 108.

Effect of intercollegiate athletics participation on career

This survey also included an open-ended question related to the effect of being an intercollegiate athlete on these individuals' careers. These results of this question yielded approximately 500 responses that varied in length from one word to a paragraph. These open-ended responses were coded and then analyzed for themes and patterns. The results were organized into twelve logical categories, which can be observed in Table 5. One of the major themes gathered from this response, is that intercollegiate athletic participation prepares athletes

to work in team environments and helps them to work well with others from backgrounds different from their own ($n = 103$). A large number of respondents also reported that college athletic participation taught them how to work hard and develop a work ethic that has been beneficial in the work place ($n = 68$). While it was not mentioned as frequently, it is important to note that participants also mentioned that their college playing experience opened doors for them in the workforce ($n = 20$).

Table 5

How has the experience of being an intercollegiate athlete affected your career?		
	<i>n</i>	%
Theme		
Teamwork (Working Well With Others)	103	20.72%
Work Ethic (Hard Worker)	68	13.68%
Discipline	61	12.27%
Confidence	60	12.07%
Positively (including very positively)	55	11.07%
Perseverance	43	8.65%
Goal setting	39	7.85%
Competitive Nature/Spirit	33	6.64%
No effect	32	6.44%
Time Management	28	5.63%
Focus	21	4.23%
Opened Doors (Networking/Connections)	20	4.02%

Note: Due to response overlap percentages do not add up to 100.

Educational satisfaction

Survey participants were asked to answer the question “How would you rate your overall undergraduate educational experience?”. The five-point Likert scale included (1) poor (2) fair, (3) good, (4) very good, and (5) excellent.

For this study, there was no significant difference between athletes and non-athletes at the .01 level, $F(1, 1346) = 2.62, p = 0.106$. These results contradict previous literature, which states that athletes are generally less satisfied with their education than general students are. The means for the athlete ($M = 32.18, SD = 0.83$) and non-athlete ($M = 32.11, SD = 0.83$) groups for the educational satisfaction question were nearly identical. The previously reported means can also be found in Table 6.

Table 6

“How would you rate your overall undergraduate educational experience?”						
	<i>Athletes</i>		<i>Non-athletes</i>		<i>F</i>	<i>p</i>
	Mean	<i>SD</i>	Mean	<i>SD</i>		
Educational satisfaction	4.18	0.83	4.11	0.83	2.62	0.106

Note: Scale from (1) poor to (5) excellent

Olympic sport athletes versus revenue generating sport athletes

One of the research questions for this study looked at whether there were differences in occupational satisfaction or work engagement between Olympic sport athletes and revenue-generating sport athletes. For the purposes of this study, revenue-generating sport athletes were athletes who played football and men’s and women’s basketball in college. Olympic sport athletes were athletes who participated in any other sport. A one-way ANOVA of revenue-generating sport athletes versus Olympic sport athletes was run and there was no significant difference at the .01 level.

Trends in job satisfaction and work engagement over time

The subjects in this study graduated from the renowned public university in the Southeastern United States in four cohorts, 1974-1976 (40), 1984-1986 (30), 1994-1996 (20),

and 2004-2006 (10). One of the research questions addressed in this study was whether there are trends in occupational satisfaction or work engagement over time.

One-way ANOVAs were run separately for the athlete subjects in each of the four graduation cohorts in this study looking specifically at their responses to the Job Satisfaction Survey (JSS) questions and the Utrecht Work Engagement Scale (UWES-9). Nature of work (JSS) $F(3, 451) = 5.87, p = 0.001$ and Dedication (UWES-9) $F(3, 463) = 4.67, p = 0.003$ were the only two areas where a significant difference at the .01 level in the athletes group was observed. Specifically, there was a significant difference between the athlete graduation cohorts. A significant difference $p = .000$ was observed between the 1984-1986 and 2004-2006 cohort. The mean for the 2004-2006 ($M = 9.89, SD = 2.22$) cohort on nature of work was also lower than the mean for each of the other three cohorts, 1974-1976 ($M = 10.57, SD = 1.71$), 1984-1986 ($M = 10.92, SD = 1.65$), and 1994-1996 ($M = 10.42, SD = 1.91$). The significant difference for Dedication, $p = .002$ occurred between the 1974-1976 cohort and the 2004-2006 cohort. Once again, the mean for the 2004-2006 ($M = 4.70, SD = 1.37$) cohort on dedication was lower than the mean for each of the other three cohorts, 1974-1976 ($M = 5.27, SD = 0.83$), 1984-1986 ($M = 5.07, SD = 1.07$), and 1994-1996 ($M = 4.96, SD = 1.07$).

CHAPTER 5

DISCUSSION

The results of this study suggest that there is a difference in occupational functioning, specifically job satisfaction, salary, and work engagement between former intercollegiate athletes and non-athletes from the school sampled. Relying on the conceptual framework of the educational value of intercollegiate athletics (Brand, 2006), the discussion will focus on: 1) current occupation and industry sector, 2) work engagement, 3) job satisfaction, 4) the effect of intercollegiate athletics participation on individuals' careers, 5) educational satisfaction, 6) Olympic sport athletes versus revenue generating sport athletes, and 7) trends in job satisfaction and work engagement over time.

Current occupation, industry sector, and salary

The second highest industry sector of employment reported by athletes in this study was business, 16.70% (n=79). Finance and insurance, a similar field, came in fourth, 13.11% (n=62). This supports the review of previous literature, which suggests that athletes tend to work in the business field (Shulman & Bowen, 2002; Henderson et al., 2005). Sales, 11.63% (n=55) was the fourth highest reported occupation by the athlete cohort. This result also supports previous literature, which points to athletes working in sales positions. The results of the industry sector and occupation questions, in Table 2, answers the research question that asks whether there are industry sectors in which athletes are clustered.

Previous literature also suggests that athletes make more than non-athletes in certain sectors such as the business sector (Shulman & Bowen, 2002). The same research also suggests

that athletes make less working in the education sector than their non-athlete peers. (Shulman & Bowen, 2002). In a study conducted in 2005, the authors of this study found that former student-athletes earn a wage premium in business, manual labor, and military occupations. They also found that former college athletes who became teachers at the high school level were linked with lower wages (Henderson et al., 2005).

Education came in as the fifth highest industry among athletes 12.26% (n=58) as well as the fifth most selected occupation (educator) 8.67% (n=41) among athletes. The results of this study contradict the previous research that states that athletes earn more than non-athletes in certain industry sectors and less in others.

Athletes, who participated in the survey, excluding those who are currently playing professionally, earn \$34,484 more annually on average than the non-athletes who participated in this study. These results can be seen in Table 1. The results of this study related to salary support previous research, specifically a study conducted in 1980, which showed that males who participated in college athletics were estimated to earn 4% higher annual incomes than their non-athlete male peers (Henderson, Olbrecht, & Polachek, 2005, Astin, 1982; Long & Caudill, 1991) The results of this study contradict the same study conducted in 1980 related to the salary of female athletes. In the study conducted in 1980, there was no increase in income related to athletic participation among females (Henderson, Olbrecht, & Polachek, 2005, Astin, 1982; Long & Caudill, 1991). When analyzing the results of this study looking at the mean salary for female athletes verses female non-athletes, a mean difference of \$31,427.10 was observed. These results suggest that female athletes now earn higher annual incomes than their non-athlete female peers.

Work engagement

From the review of literature, it is clear that work engagement is increasingly becoming more important to employers and workers alike. The results of a Gallup poll on work engagement conducted in 2014 yielded the highest results since 2000, when Gallup first started tracking engagement levels of the U.S. working population (Adkins, 2015).

There was a significant difference in three of the four areas related to work engagement in this study. This suggests that athletes feel higher levels of dedication, vigor, and overall work engagement related to their job than the non-athletes who participated in this study. It is important to note that the fourth measure of work engagement in the UWES-9, absorption did not result in a significant difference.

According to the previous literature on work engagement, engaged employees are those who are involved in, enthusiastic about, and committed to their workplace (Adkins). Highly engaged employees' values also seem to match well with the values of the organization that they work for (Schaufeli and Bakker, 2003). According to the conceptual framework of the educational value of intercollegiate athletes, which guided this research, intercollegiate athletics participation demonstrates values such as perseverance, resilience, hard work, and respect for others (Brand, 2006a). Results of this study support that athletes are highly engaged in the workplace, which suggests that their values likely match well with the values of the organization they work for. A number of the values listed above were mentioned by former athletes on an open ended question related to the effect that intercollegiate athletics participation had on their career. These responses and values will be discussed in further detail in the "*Effect of intercollegiate athletics participation on career*" section.

Work engagement is a construct which generally has a positive correlation to job satisfaction. A meta-analysis from a previous study shows a .22 correlation between job satisfaction and engagement (Harter, Schmidt, & Hayes, 2002). Job satisfaction is another area that was studied and will be discussed in the next section. The results of this study support the previous literature that work engagement generally has a positive correlation to job satisfaction.

Job satisfaction

Job satisfaction is another major area of focus for this study. More studies have been conducted on understanding job satisfaction than any other variable in organizations (Spector, 1985). One reason for the increasing focus on job satisfaction, according to previous literature, is that career satisfaction is related to many aspects of work behavior and wellbeing (Abele & Spurk, 2009; NG, Eby, Sorensen, & Feldman, 2005; Spurk, Abele, & Volmer, 2001). Mental health and wellbeing are currently hot topics, especially in the college athletics realm. Former athletes scored higher than non-athletes on eight of the ten measures of Job Satisfaction, including a mean difference of almost 5 on total job satisfaction. These results may imply that former athletes have an overall better sense of health and wellbeing than their non-athlete peers.

Edwin A. Locke developed one of the most notable job satisfaction models, Range of Affect Theory (1976). According to Locke, the common dimensions of job satisfaction are: work, pay, promotions, recognition, benefits, working conditions, supervision, coworkers, company, and management. The job satisfaction survey, which was utilized as part of the instrument for this study, has questions related to supervision, coworkers, nature of work, pay, contingent rewards, promotion, fringe benefits, communication, operating conditions, and total job satisfaction. Almost all of these facets are related to those determined by Locke in 1976. In

this study, there was a significant difference in eight out of ten, see Table 4, of these facets.

These results suggest that athletes feel more satisfied about their work than non-athletes do.

Another important thing to note from the review of previous literature is that job satisfaction is correlated with life satisfaction (Rain, Lane, & Steiner, 1991). In fact, this correlation appears to be reciprocal, meaning that people who are satisfied with their life tend to be satisfied with their job, and that people who are satisfied with their job tend to be satisfied with their life (Rain et al., 1991). If that is the case, the results of this study also suggest that athletes are also more satisfied with their lives overall.

Effect of intercollegiate athletics participation on career

The instrument used for this study included an opened question that asked athletes what affect their college athletics participation had on their career. This question yielded 497 responses that varied from a few words to multiple paragraphs. After these responses were coded and verified, themes were identified. The twelve themes that stood out can be seen in Table 5. A number of these themes, or key words, relate to those used by Myles Brand when he described intercollegiate athletics at its best in 2006 (Brand, 2006a).

Participants also mentioned that their college playing experience opened doors for them in the workforce ($n = 20$). In fact, some respondents believe that they obtained their first position out of college, or a position down the line, due to their intercollegiate athletics participation. A member of the 1974-1976 graduation cohort who served as a captain on the football team and rated his overall undergraduate educational experience as excellent stated: "Playing helped me land my 1st job and always was a positive part of my career" (Respondent 353). A member of the 2004-2006 graduation cohort who played on the Women's Basketball team and described her educational experience as very good stated: "I think that being a student athlete opened up doors

for me. People want to hire student athletes because of our work ethic and ability to handle stressful situations” (Respondent 244). Another respondent (901) who played on the Men’s Basketball team and graduated between 1984 and 1986 said: “It has provided me with a strong sense of achievement throughout my life. I believe it helped me land my first career position out of college”. These results point to the value of intercollegiate athletics participation on life after graduation, specifically the effect on postgraduate careers.

Educational satisfaction

This research also aimed to answer the question “Is there a difference in educational satisfaction between athletes and non-athletes?” Previous research has suggested that intercollegiate athletes experience lower levels of educational satisfaction due to the time demands from their sport, which may limit opportunities to do things such as study abroad, complete a summer internship, and joining other on-campus organizations.

For this study, there was no significant difference between athletes and non-athletes at the .01 level, $F(1, 1346) = 2.62, p = 0.106$. These results contradict previous literature, which states that athletes are generally less satisfied with their education than general students are. The means for the athlete ($M = 32.18, SD = 0.83$) and non-athlete ($M = 32.11, SD = 0.83$) groups for the educational satisfaction question were nearly identical. This suggests that athletes are just as satisfied with their educational experiences as their non-athlete peers are. These results also imply that while athletes have a lot of responsibilities and time demands related to their sport, they are still able to enjoy the other aspects of their college career to a similar extent that non-athletes do.

Olympic sport athletes versus revenue generating sport athletes

There were no significant differences between Olympic sport athletes and revenue generating athletes related to job satisfaction or work engagement. This contradicts some previous literature that suggests that Olympic sport athletes perform as well, and sometimes better, than higher profile sport athletes. These results can have both positive and negative implications. For revenue generating sport athletes, these results suggest that these athletes have not fallen behind their peers, which is a positive thing. For Olympic sport athletes, these results may actually continue to threaten them, as more emphasis may continue to be placed on Football, Men's and Women's Basketball. It is important to note that while there is no significant difference between the two athlete groups, there are still significant differences between the athlete and non-athlete groups.

Trends in job satisfaction and work engagement over time

The mean for the 2004-2006 ($M = 9.89$, $SD = 2.22$) cohort on nature of work was lower than the mean for each of the other three cohorts, 1974-1976 ($M = 10.57$, $SD = 1.71$), 1984-1986 ($M = 10.92$, $SD = 1.65$), and 1994-1996 ($M = 10.42$, $SD = 1.91$). These results suggest that graduates in the 2004-2006 cohort are less satisfied than graduates in the three other cohorts that this study observed. There may be a number of reasons for the 10 years out groups' dissatisfaction with the nature of their work. A number of recent graduates are likely underemployed and may be frustrated with their current work situation. It also might be more difficult for recent graduates to find a job in the field that they are most passionate about.

In a study conducted by Spurk, Abele, & Volmer (2014), career satisfaction was measured 15 years after graduation. The authors selected this point in the subjects' careers, because they determined that this is when occupational socialization is vastly completed.

Occupational socialization is defined as the learning of skills necessary to demonstrate competence within a context of employment. The graduates in the 2005 cohort have only been out of college for ten years, so it is possible that they have not completed their necessary occupational socialization yet.

Another area where a significant difference was observed among the athlete groups was dedication. This difference occurred between the 1974-1976 and 2004-2006 cohorts. Similar to the means for nature of work, the mean for the 2004-2006 group was lower than for each of the other three cohorts. These results suggest that athletes who graduated between 2004 and 2006 are less dedicated to their work than athletes who graduated in the other three cohorts. This could be due to a number of factors, but there are no specific explanations for these results.

Conclusion

In accordance with the educational value of intercollegiate athletics, there are effects of intercollegiate athletics participation on areas of occupational functioning, including job satisfaction, salary, and work engagement. The results of this study support the purpose of this study through the significant differences that were observed between athletes and non-athletes on areas measured including, salary, total work engagement, dedication, vigor, total job satisfaction, coworkers, nature of work, pay, contingent rewards, promotion, communication, and operating conditions.

There were no major differences between athletes and non-athletes on educational satisfaction, which differs from previous research and popular media. There was also no significant difference between Olympic sport athletes and revenue generating sport athletes. These results contradict earlier research that suggests that revenue-generating sport athletes perform poorly compared to Olympic sport athletes. These findings are a tremendously valuable

addition to the current literature, as well as popular opinion and governance discussions related to the current state of intercollegiate athletics. An understanding of the benefits of intercollegiate athletics participation related to occupational functioning can help to quantify the value of the current student-athlete experience.

Future Studies

This study was one of the first to explore the occupational functioning of former NCAA athletes and traditional students at one Division I Power 5 institution in four distinct graduation cohorts. That being the case, there are a number of follow-up studies that could be conducted. The most logical follow-up would be to replicate the study comparing multiple Division I Power 5 institutions. This would create a broader picture of the educational impacts of intercollegiate athletics participation on occupation measures and create an even richer data set. The goal of this study was to determine whether significant differences between these groups existed and then to expand this research to additional schools if there were. While this sample is appropriate for the specific research questions in this study, this sample poses a limitation to the ability to generalize these findings to a broader sample of athletes and non-athletes at other schools.

This study only looked at one Division I Power 5 institution. Investigating the value of intercollegiate athletics participation at Division II and/or Division III institutions would also be a compelling study. The results of the new study could be compared to the current study to see whether there are significant differences between athletes and non-athletes at universities in different divisions. It would be interesting to see whether the athletics experience dictates commonalities or there would be major differences because of the type of educational institution in some of the areas such as educational satisfaction, job satisfaction, salary, and work engagement.

A potential limitation of this study is the length of the survey. The survey that was sent out to the athlete and non-athlete participants is part of a larger study that looks at other areas such as physical, mental, and social/interpersonal functioning. The length of the survey likely contributed to some of the drop off especially on some of the questions close to the end of the survey. Overall, the response rate of 34% was still more than sufficient to obtain a rich data set for the purpose of this study. Another limitation of this research is that responses obtained from survey research may not reflect reality. Some respondents may say what they think the researcher wants to hear, or their responses may reflect how they wish things were.

Another limitation of this research is that the responses were not analyzed industry by industry because the responses were too fragmented. In a follow-up study it would be interesting to compare industry-by-industry looking at things such as education vs. education, business vs. business, etc. This would provide even more information about the respondents who work in each of the industry sectors.

A sampling delimitation in this study involved the possibility of individuals not having access to a computer or to the internet. The survey was sent via email using Qualtrics and via a tinyurl, which was included in a mailer sent to the participant's home addresses. One individual contacted the researcher after receiving the mailer and informed the researcher that they were interesting in taking the survey but did not have access to a computer. A phone interview was conducted with this individual but it is unclear if there were others in the sample who were also affected by this. One way to prevent this situation in the future would be to include on the mailer that an individual can contact the researcher to take the survey over the phone or to be mailed a paper copy of the survey.

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