CHAPTER 2. REVIEW OF LITERATURE

This chapter presents a review of the literature in five distinct sections. In each section, relevant research is used to inform the dissertation study. The first section focuses on defining and outlining the history and evolution of extracurricular activities in secondary education. The second section reviews literature surrounding the present value of extracurricular activities or the value to students at the time they are participating in the activity. The third section examines Becker's theory of human capital in greater depth. The fourth section serves as a link between this theory and the future value of investments made in extracurricular activities. The final section of this chapter is a summary.

Historical Perspectives

This section of the literature review examines the rise of athletics and activities in schools in America through time. While work began on the study of school-sponsored activities early in the twentieth century, the rise in popularity of such activities and their subsequent study has only recently grown.

A study conducted at the conclusion of the 2006–2007 school year by the National Federation of State High School Associations found that participation in high school athletics for that same school year rose by over 183,000 students to an all time high of 7,342,910 students, a proportional increase of 2.49% over the previous year ("High school sports," 2008, p. 53). The NFHS represents the local governing bodies of sports and activities within each state and the District of Columbia.

This growth does not come without concern. Issues such as "No Pass/No Play" in Texas, North Carolina, and, most recently, Iowa, and "pay to play" in other areas of the country - an issue Hoff and Mitchell (2006) examined in depth - have come to the forefront.

"No Pass/No Play" is a philosophy and policy in some locations whereby students must pass all classes to be eligible for extracurricular activities. "Pay to play" refers to requiring students to pay for the privilege of participating in their school's activities. These issues have fueled debates related to the value and importance of extracurricular activities. McNeal (1998) examined the fact that "these activities are often among the first items to be targeted for budget cuts in times of fiscal constraints" (p. 183).

These issues are not new. As early as 1932, Brammell noted that careful study of athletic activities should be done to ensure that "certain evils" (p. 735) do not develop. In 1961, Coleman wrote that "status criteria in leading-crowd membership, on popularity – demonstrates conclusively that athletics is far and away more important as a value among high schools students than academic achievement" (p. 33).

Whether 80 years ago or today, the issues surrounding high school extracurricular participation, more specifically athletic participation, represent a struggle over the manner in which we educate our young adults. Much like the evolution of the struggle, so too have extracurricular activities evolved over time in the educational setting.

Today, the term extracurricular activity - - while diverse across various social-, civic-, and arts-driven disciplines - - resonates most commonly in the athletic arena. Within that arena, the activities are as diverse as the populations and locations of American high schools. High schools typically house students in grades 9 to 12, with students ranging in age from 14 to 18 years old. One recent study found that, on average, schools offered 14 extracurricular sports programs (Cohen, Taylor, Zonta, Vestal, & Schuster, 2007). The NFHS sponsors over 100 individual sport programs nationwide, including 10 adapted sports to service the needs of students with various disabilities (*NFHS participation*, n.d.). While

all schools do not offer all sports - - for instance, in Iowa it is unlikely that there are sailing teams due to the lack of bodies of water in which to sail - - most states offer a diverse array of athletic opportunities, ranging from more traditional sports such as baseball, basketball, and football, to sports with newly-found interest such as kayaking, rodeo, and curling.

It is important to note the evolution of these athletic ventures lends greater understanding to the strong support shown to schools and communities throughout America. Benjamin Rader categorized the development of American sport into "four distinct periods - - The Age of Folk Games (1607-1800); The Rise of Organized Sports (1800-1890); The Ascendancy of Organized Sports (1890-1950); and the Age of Televised Sports (1950-present)" (as cited in Riess, 1990, p. 312). Through each of these eras, the structure and organization associated with athletics grew, from community games that were played solely for recreation in the Age of Folk Games, to a rise in sports in communities in the 1800s, to the inclusion of sport in school up until about 1950, to today, where sports are part of everyday life and culture from school to the community.

Burnett (2000) noted that sports at the turn of the twentieth century were simply a recreational activity. The first intercollegiate contests "were not instituted until 1852, and yet, by 1900, the majority of high schools had followed colleges incorporating athletics into the schools" (p. 1). At this time, sports as a recreational activity evolved into sports as a more "vital part of the educative process" (p. 1).

Rader's work highlighted the fact that sports mirrored the changes in society at the time. The evolution of athletics was "primarily the joint product of industrial capitalism, the evolution of American society and culture (in an urban setting), and the exigencies of each

sport's internal requirements (organization, rules management, finances, and ethos)" (as cited in Riess, 1990, p. 312).

The Carnegie Foundation completed significant work on the study of athletics in the early 1900s. This work outlined the change in secondary schools from low demand and significance placed on physical activity and enjoyment to more demand for competitive play. The notion behind this shift was that athletic competition played a major role in "curing the ills of urban, technological democracy. These arguments included a concern with juvenile delinquency, adolescent sexuality, the social problems of urbanization, leisure time, social unrest, industrialization, and economic individualism" (as cited in Spring, 1974, p. 486).

Luther Gulick, the principal founder and first president of the Playground and Recreation Society of America, introduced class athletics into public schools in New York City in 1906. Gulick felt that through athletics the young men of the day would be "conditioned by the rules of the game . . . It is for this freedom and this control that play gives preparation and training" (as cited in Spring, 1974, p. 488). As the importance of sport grew, so did the need for control. With some resistance, sports became a part of the schools, and "the major factor motivating educators' systematic involvement in these organizations was the perceived need to reestablish adult control" (Gutowski, 1988, p. 72).

The primary organization of sport and the development of morality occurred in high schools, which were rapidly changing at this same time. The goals of high schools shifted from almost purely academic to the development of what American educational reformer John Dewey called the "whole child" (as cited in Burnett, 2000, p. 2). The *Cardinal Principles Report* stated in 1918 that the major goals of the high school were to give men

“common ideas, common ideals, and common modes of thought, feeling, and action that made for cooperation, social cohesion, and social solidarity” (Spring, 1974, p. 492). The report focused on the formation of objectives for secondary education and called for the all-out inclusion of “participation of pupils in common activities . . . such as athletic games” (p. 492).

In 1920, the NFHS was formed, adding a layer of legitimacy to athletic competition as high school sports grew in number and participation. It was at this time that an internal strife began which still exists today, namely the pitting of academic interests against that of student interests, which were seen at the time as residing outside the world of academic advancement (Burnett, 2000).

The largest expansion of sport in high schools took place after World War II, when sports grew out of increased media coverage and economic gain specifically related to college and professional sports. The growth of leisure time and an increased value in human culture caused sports to flourish (Burnett, 2000; Spring, 1974).

Girls began participating in high school sports in large numbers only after the passage of Title IX of the Education Amendments to the Civil Rights Act in 1972. In the year prior to the passage of this law, fewer than 300,000 girls participated in athletics in high schools nationwide; in 2005-2006, three million girls participated in athletics in our nation’s high schools (Stevenson, 2007, p. 487). The legislation was passed in 1972, enacted in 1978, and strengthened by Congress in 1987and again by the Supreme Court in 1992, thus ensuring girls similar opportunities to benefit from athletic competition as boys (p. 491).

Many of the same issues that once plagued interscholastic athletics still exist today. There are still questions as to the value of athletic participation, the emphasis placed upon

athletics relative to academics, the social impact that athletics have had in areas such as bi-gender participation and the inclusion of diverse groups, and whether or not schools should sponsor and support athletics or if athletics should be held outside of the context of the educational setting.

In 1969, Walter Schafer wrote that:

> interscholastic athletics share with other competitive sports the distinction of being among the least studied of all social phenomena . . . high school sports are marked by rich and abundant folk-wisdom about the reasons for their existence and strength . . . their consequences for society, the community, the school, and participant. (p. 40)

In the nearly 40 years since Schafer's comment, little has changed in terms of the advancement of research and understanding.

Present Value

The NFHS has compiled a list of three general benefits of extracurricular activities (*The Case,* n.d.):

1. Activities support the mission of schools.
2. Activities are inherently educational.
3. Extracurricular activities have long lasting effects.

The first two benefits center on the present. Through case studies, the NFHS has developed these benefits and demonstrated each in a variety of settings. In these studies, factors relating to academic achievement and student development are highlighted, further building a case for student involvement in activities.

This section focuses on the present value of participation in activities - - those direct benefits to students within the context of the present, the time in which they are participating in a high school extracurricular activity. Included are indicators that we have seen across the country such as higher student achievement and student development.

Academic Achievement

This section focuses on the topic of academic achievement, which refers primarily to grade point average, school attendance, discipline, and dropout status. Much of the research on academic achievement in this area focuses on the concept of *No Pass/No Play*, a practical approach in some school districts across America to ensure that participation in extracurricular activities is maintained as a privilege and not a right (Reeves, 1996). The research is framed in this context given that it appears to be the primary method of attack that opponents use to challenge funding, support, and participation in athletics and activities. Those opposed see extracurricular activities as detrimental to the educational process; those in favor of extracurricular activities see them as an enhancement.

The Challenge of Higher Standards

Two of the most-cited studies related to academic achievement and extracurricular participation were authored by Melissa Sabatino and Joseph O'Reilly. Both scholars' work focused on the impact of No Pass/No Play on schools in the southwestern United States. Sabatino and O'Reilly found that, when challenged with stricter standards, students involved in athletics responded at least somewhat positively to increased academic expectations. Ralph McNeal's work did not focus on any pass-to-play schemes, but rather on academic achievement as a byproduct of participation.

Sabatino (1994), a researcher for the Austin (Texas) Independent School District, conducted a study of Texas House Bill 72, a major reform bill passed in 1984 to overhaul the education system in that state. Included in HB 72 was legislation that enacted a No Pass/No Play rule for high school athletes. At the time, No Pass/No Play was a rule in Texas that excluded a student from participating in extracurricular activities for a period of six weeks if he or she failed to maintain a passing grade in all subjects. Sabatino's research looked at the comparative numbers across a broad area of indicators from the 1984–1985 school year (the year before HB 72 was enacted) and the 1992–1993 school year.

Sabatino's research showed that that more students remained eligible to participate in extracurricular activities under the No Pass/No Play provision (1994). Her numbers indicated that in the year prior to HB 72's enactment, the percentage rate of high school students eligible to participate in extracurricular activities was approximately 41%. Eight years later, that percentage had risen to 47%. Furthermore, students involved in athletics saw the most dramatic increase in eligibility rates, advancing from 47% to 60%compared to(p. 9).

Sabatino went on to analyze the dropout rate in the two-year comparison. The findings in this area were not as clear as those in her eligibility study. The dropout rate in 1984–1985 was at 13% for those not involved in extracurricular activities compared to 5% for those involved in an activity. The findings for the 1992–1993 school year proved to be similar: 10% of those not involved in an extracurricular activity dropped out compared to 3% of high school students involved in an activity (p. 14).

One assumption made by opponents of such legislation is that students, when faced with rules that require higher achievement, will simply lower their standards and not enroll

in courses that require additional effort. Sabatino (1994) examined enrollment in honors courses and found that HB 72 did not have a negative impact on student participation in honors courses. The overall percentage of students enrolled in honors courses advanced from 24% in 1984–1985 to 35% in 1992–1993 (p. 17). The number of students participating in extracurricular activities during the fall of 1992–1993 was up 12 percentage points from 36% in 1984–1985, negating the premise that students would choose easier paths to maintain their eligibility (p. 17).

Sabatino (1994) concluded that "the No Pass/No Play provision may not have met the optimistic hopes of some legislators; however, the negative impacts that many feared also have not manifested" (p. 3). She went on to add that the legislation "appears to have a slightly positive effect on students involved in extracurricular activities" (p. 3).

A similar study, conducted in the Mesa (Arizona) Unified School District arrived at a different set of conclusions than did Sabatino. O'Reilly (1992) studied all students in grades 7–12 in the district after Arizona's Board of Education enacted No Pass/No Play rule in 1989. Hypotheses for the study were that under the No Pass/No Play rule student grade point averages would increase, fewer students would be ruled ineligible, and the rule would have a disparate effect on minority groups (p. 7).

With respect to grade point averages, O'Reilly (1992) found there was an increase in this indicator from the year prior to the rule's initiation. O'Reilly discovered, however, that this increase was part of an overall trend witnessed within the school district that also could be accounted for by "creeping grade inflation or consistently better student performance" (p. 11). Thus, the conclusion that grade point averages might have increased solely because of the rule was likely false.

O’Reilly examined student eligibility over the period, finding that the number of students that were ruled academically ineligible to participate in athletics and extracurricular activities declined the first year after the rule was implemented. The data revealed, however, that the district saw an increase in the number of students ineligible the second year. O’Reilly (1992) accounted for this by demonstrating that the percentage of students ineligible over a five year period, encompassing years both prior to and after the enactment of the No Pass/No Play rule, was consistently declining in a range between 34% and 28% (p. 10).

In examining the effect on minority groups, O’Reilly showed that the rule had “no clear impact on many of the academic outcome measures” (1992, p. 45) such as academic performance, dropout rates, or enrollment in honors classes. The data indicated, however, that a far greater number of ethnic group representatives were ruled ineligible compared to their White counterparts in the district. The percentage of White participants ineligible (10.7–15.0%) proved to be much lower than the subgroups of Hispanics (21.2–27.8%), African-Americans (16.5–32.8%), and Native Americans (29.2–41.1%) (p. 33).

O’Reilly concluded that the rule did not appear to have overwhelmingly positive results but that there was a disproportionately negative impact on minority groups regarding eligibility. He went on to state that the data did not suggest failure or success at that time due to a limited frame of reference. O’Reilly (1992) pointed out that the minimal positive benefits of the rule “must not be outweighed by long term negative consequences” (p. 47). Included in his discussion was the long-noted correlation between student activity and academic success and later success.

McNeal (1998) also outlined the value of what he called the “extracurriculum” (p. 184). In his work, he pointed to the numerous correlational studies that link extracurricular activities to success, including academic success. Using the first two waves of the NELS:88 data set (while students were still in school), McNeal’s work demonstrated the importance and value of extracurricular participation for all students while in school. McNeal (1998) found that activities were neither “fully beneficial or fully detrimental for all students” (p. 190).

Grade Point Average

Following Sabatino and O’Reilly’s work, two other researchers conducted similar research in North Carolina and Texas, this time focusing on grade point averages. Whitley (1999) conducted a study in North Carolina similar to those of Sabatino and O’Reilly, although North Carolina did not currently have a No Pass/No Play rule in effect. Whitley compared academic achievement, attendance, discipline, and the dropout rates of nonathletes to those of athletes and demonstrated that the “educational performance of athletes is better than that of nonathletes” (p. 224).

The grade point average of the athletes in Whitley’s study proved to be 22.66% higher than that of nonathletes, and athletes missed on average 6.06 less days of school a year than nonathletes (1999, p. 225). A similar trend was noted in discipline referrals: athletes were 10% less likely to receive a discipline referral compared to their nonathlete counterparts. The dropout rate indicated that 9.2% of nonathletes dropped out of school prior to graduation, opposed to just 2% of athletes (Whitley, 1999, p. 226).

Whitley (1999) generalized that “there is a direct relationship between participation in athletics and academic success. Therefore the popularity of sports in our society should be

utilized as a tool for improving the educational performances of our young people" (p. 228). Whitley stated that schools should not eliminate interscholastic athletics and activities. Eliminating those opportunities for students, either through budgetary measures or academic restrictions, would not "help solve the problem of mediocre performance by American public school students" (Whitley, 1999, p. 229).

Burnett (2000) also outlined the many positive aspects of extracurricular activities and the negative impact that No Pass/No Play legislation has had in some areas. He wrote that those involved in an extracurricular activity were less likely to have an unexcused absence from school, less likely to have skipped a class, more likely to maintain a grade point average above a 3.0, and more likely to earn a bachelor's degree or higher (p. 3).

Burnett (2000) also addressed the notion of the No Pass/No Play concept specifically with respect to the state of Texas. He pointed out that the policies "overwhelmingly affected poor, black males greater than any other social group" (p. 4). Texas schools have experienced what Burnett called social failures where policies have led to abuses in the system, cheating, and teachers who lower the standards within their classroom. He also noted that many students simply dropped out when "their primary source of success - - athletics - - [was] eliminated" (p. 4).

Each of these authors noted some positive impact regarding increased grade point averages and the connection between participation and academic success. Each of these are indicators of increased student achievement.

Student Development

In 1999, McNeal wrote that there had been a shift in the role that schools play in America over the past two decades. That role has become "more 'academic' and less

'developmental;' in other words academic achievement has become nearly the sole focus of many secondary schools" (p. 306). McNeal noted that the operation of schools in a clearly academic manner hurts students, reiterating the value of participation in extracurricular activities. With the multiple challenges facing education today, many schools have eliminated or underfunded programs that are not seen as academic. McNeal concluded that "we should be focusing not on how to curtail them, but rather on how schools can facilitate involvement" (p. 306).

Along with academic achievement, which McNeal pointed out drives our schools today, participation in activities is seen to have a positive influence on the development of the adolescent. Topics related to this area include the development of self-confidence, self-esteem, and leadership skills. This section reviews studies of the impact of participation on individual student development.

Interpersonal and Personal Development

Purely quantitative research would yield incomplete results in the overall study of the value of participation. Many different studies demonstrate that participation in far more important than just improved grades and better attendance. Interpersonal and personal development may be learned through participation. A number of studies have demonstrated a positive impact beyond tangible numbers in their studies, typically highlighting self-esteem, self-confidence, and communication.

A recent study by three educators at the University of Illinois pointed out the positive benefits of participation in extracurricular activities. Evaluating the experiences and subsequent responses of over 450 high school students, Hansen, Larson, & Dworkin (2003)

found that both personal and interpersonal development were enhanced through student participation in athletics and other extracurricular activities.

The completed work produced results demonstrating that students developed "basic emotional, cognitive, and physical skills" (Hansen et al., 2003, p. 27), along with the development of initiative and a definition of self. They also found that participation in activities enhanced interpersonal development, including team-building, relationship development among peers, and the development of other skills and relationships, thus providing "resources such as access to assistance and information" (p. 27).

Burnett (2000) reported on the intrinsic values that participation in extracurricular activities can bring, such as character-building, self-confidence, self-esteem, and a competitive spirit. These four attributes were seen not only as positive in terms of individual student development, but also excellent counterarguments to those who favor academic-based restrictions on participation.

Smith (1986) wrote about the case against No Pass/No Play in the *Progressive Review*. In his essay, he outlined the many values, relationships, and teachings gained through participation in activities. Without raw numbers or factual data, he cited the need for participation without strict guidelines, merely on the basis of the value of that participation.

While much of the data centered on No Pass/No Play, some research has examined activities based on their own merit. Broh (2002) examined participation in activities and their promotion of student development using the NELS:88 data set. He studied those students in grades 10 and 12 participating in all activities including athletics, music, and other school clubs.

Broh first examined the social benefits of participation and concluded that "participating in sports during the 10th and 12th grades significantly improves self-esteem, locus of control, and time on homework" (2002, p. 78). Each was found to be significant at the less than 10% level. In addition, Broh found that participation in sports greatly enhanced the ability for students to relate with and connect with other students, thus helping them as social human beings.

Jordan (1999) studied the impact of athletic participation on African-American students. In his examination, he set out to determine what factors, if any, contributed to the successful education of young African-American students. Jordan used NELS:88 data to establish two key points about all students involved in athletic activities in high school. First, he found that the relationship between participation in athletics in high school and the notion of self-concept was positive and significant. In addition, Jordan found that sports had a positive and significant impact on a student's academic self-confidence. He concluded that "sports and physical activity can help adolescents who participate in them develop self-efficacy, self-confidence, and feelings of competence by virtue of the mastery of skills and talents that such participation engenders" (p. 67). Thus, if these elements are bolstered by sport, it would make sense that they can and do make a difference in the daily lives of students.

Values Education

One area of interest today is values education in schools. Some scholars have examined the impact of extracurricular participation on values such as competitiveness, poise, and leadership.

McNeal (1998) discussed the importance of values education through participation in student activities. He wrote that “there is a clear distinction between the focus in athletics on competitiveness, aggression, and the internalization of a hierarchical role structure and the focus in fine arts on behaviors such as poise and the application of classroom-based knowledge” (p. 184). Much of McNeal’s work centered on access to the extracurriculum and the importance of such activities.

One other area that often is discussed relative to participation in activities is leadership development and leadership ability. Dobosz and Beaty (1999) explored this notion using a single high school as a sample. The two authors studied a sampling pool of 100 students at a suburban, college-preparatory high school near Chicago. Using an independent measure of leadership ability, they found that “high school athletes did, in fact, outscore their nonathlete peers on the leadership ability measure” (p. 219). This proves consistent with the literature that supports athletic participation as a positive influence on adolescents.

The Female Athlete

An increasing amount of literature exists on female athletes. Troutman and Dufur (2007) examined the female athlete specifically. In their work, they found that:

> in terms of health, female athletes report fewer mental problems, eating and dietary problems, and general health problems than do nonathletes. In addition, high school athletes report higher self-concepts, express a more internal locus of control, and have fewer discipline problems. (p. 444)

In addition, they noted that “team sports helped protect girls, but not boys, with low GPAs from depression” (p. 445).

In addition, there has been research conducted that demonstrates that females who participated in athletics are less likely to become pregnant in their teenage years than peers who are not participating. Sabo, et al. (1998) studied 699 families over the course of four years and found that female athletes were less likely to be sexually active, which led to a number of recommendations, including the expansion of sports for girls. Reppucci (1987) indicated that sports were an effective vehicle in communities to reduce teenage pregnancy, but found that many areas of the country were failing to use this as a vehicle of social change.

Equally as important as academic achievement is the development of the student. The role of participation in athletics and activities in that process appears to be profound. Whether in the development of self-esteem, self-confidence, or leadership, the value or participation is noted in various studies.

Conclusion

To date, no studies, including this one, exist that demonstrate a causal link between participation in extracurricular activities and academic achievement. Numerous studies, however, demonstrate that a strong correlation does exist between success in the classroom and participation in extracurricular activities. Further research has indicated more qualitative findings of support for participation in extracurricular activities related to student development. Both are strong indicators of the present value of participation in extracurricular activities in the life of a high school student.

Theory of Human Capital

This section focuses on the theoretical context surrounding this study. The theory of human capital has grown in stature and popularity since its original, formal introduction in

1960. In short, Becker (1993) stated that the theory concentrates on the "activities that influence future monetary and psychic income by increasing the resources in people. These activities are called investments in human capital" (p. 11). This theory postulates that "education and training are the most important investments in human capital" (p. 17). Becker contended that the greater the investment in human capital, the greater the return.

In 1993, Becker wrote that "a bibliography on the economics of education prepared in 1957 would have contained less than 50 entries, whereas one issued in 1964 listed almost 450" (p. 3). In the same context, he noted that a similar bibliography in the 1970s would have included well over 1,300 entries. Of those 1,300, to which no present-day estimate was made in the literature, very few connect the relationship between the participation in extracurricular activities, which are often seen as an investment in students' lives, and any sort of future value.

In the minds of most Americans, the term capital refers to money, whether it be in the form of cash or property. Beyond the notion of simple tangible items, however, lies the notion that there are intrinsic, intangible items that can be called capital. Herein lies the notion of human capital.

A Historical Analysis of Human Capital

With roots in early America, the theory of human capital has grown as our capitalist society has grown. This section investigates that development of the theoretical basis for this study.

As Sweetland (1996) pointed out, "human capital theory formally evolved in this century, but its bona fide conceptualization was articulated centuries ago" (p. 343). Early

economists such as Adam Smith, John Stuart Mill, and Alfred Marshall all addressed the issue of human capital in early America. For example, Mill wrote that:

> utilities fixed and embodied in human beings . . . the labour being in this case employed in conferring on human beings qualities which render them serviceable to themselves and others. To this class belongs the labour of all concerned in education; not only schoolmasters, tutors, and professors, but governments, so far as they aim successfully at the improvement of the people . . . and all labour bestowed by any persons, throughout life, in improving the knowledge and cultivating the bodily or mental faculties of themselves or others. (Mill, 1926, p. 46)

Fisher (1906) summarized what Smith, Mill, and Marshall found years later, stating that "wealth in its broadest sense includes human beings" (p. 51).

Blaug wrote in 1976 that "the birth of human-capital theory was announced in 1960 by Theodore Schultz" (p. 827), yet it has origins in early America as is noted in the words of Smith, Mill, Marshall, and Fisher. It has connections to periods in the early to mid-twentieth century as well. Blaug credited the work of John R. Walsh, Jacob Mincer, and Milton Friedman, as well as Simon Kuznet's book, *Income from Independent Professional Practice,* as contributions, but noted that it is Schultz and Becker who tied the subjects together (p. 827).

In his presidential address to the American Economic Association in 1960, Schultz first addressed the subject and formalized the theory into a working model. In his speech, he stated that "much of what we call consumption constitutes investment in human capital. Direct expenditures on education, health, and internal migration to take advantage of better job opportunities are clear examples" (1961, p. 1). Many of Schultz's initial findings were

based upon the rise in the national income from 1900–1956 and the further importance placed upon education during that period of time (Schultz, 1961; Sweetland, 1996).

Schultz found that there were three classes of expenditures. The first was pure expenditure, the second was pure investment, and the third was a combination of the two. He noted that education, partly an investment and partly a consumption, fit into the third classification. He further explained the difficult challenge of allocating for education between the second and third categories, citing that "the problem of allocating costs of education in the labor force between consumption and investment does not arise to plague us when we turn to the contribution that education makes to earnings and to national income" (Schultz, 1961, p. 13).

Schultz's work also focused on five categories of investment: (a) health facilities and services; (b) on-the-job training; (c) formally organized education at elementary, secondary, and higher levels; (d) study programs for adults; and (e) migration by individuals and families to adjust to the job market. While he discussed each element, Schultz's focus was on the third element, education. He noted that "the income of the United States has been increasing at a much higher rate than the combined amount of land, man-hours worked and the stock of reproducible capital used to produce the income" (Schultz, 1961, p. 6). His challenge was to determine why; his answer was an investment in human capital.

Out of Schultz's discussion in 1960 came a benchmark study in the theory. The work of Denison attempted to explain the economic growth in the nation over the same period of time. He found that the average annual growth rate was 2.93% and estimated that 2.0% of the growth was attributable to an increase in total inputs, of which 0.67% was education (Denison, 1962, p. 266).

Schultz (1963) again addressed the nation in aggregate, examining all economic growth. In his findings, he wrote that “it is essential to distinguish between the return and the rate of return for reasons already presented. It must be borne in mind that the measured return of schools is implying that part of earnings attributed to education” (p. 58). He touched upon the notion that individual returns were present as well as social returns, the first time the notion of human capital was expressed on a micro-level.

Becker took the theory and examined the individual returns of each investment in human capital related to education and training and connected that to the individual’s level of income. His findings were simply that “the earnings of more educated people are almost always well above average” (n.d.).

Becker and Human Capital

Gary Becker (1992) is widely seen today as one of the foremost scholars related to the theory of human capital. This section focuses on his work and that theory. Becker summarized human capital analysis in his Nobel Lecture in Economics in 1992, writing that “human capital analysis starts with the assumption that individuals decide on their education, training, medical care and other additions to knowledge and health by weighing the benefits and costs” (p. 43). The benefits included both tangible and intangible gains ranging from cultural advancement to improvement in earnings and portability in the workplace. The cost is simply the time spent on these investments.

Once thought of as a controversial topic because it categorized humans as machines, the theory is now widely accepted in the field of economics. There are, however, still some who oppose the theory; those individuals typically align themselves with the thought that the emphasis on the material good detracts from the cultural effects of education, which to some

are more important (Becker, 1993). It is the “schooling, a computer training course, expenditures on medical care, and lectures on the virtues of punctuality and honesty” (p. 15) that are considered capital in this case. These produce “human, not physical or financial, capital because you cannot separate a person from his or her knowledge, skills, health, or values the way it is possible to move financial and physical assets while the owner stays put” (p. 16).

Sweetland (1996) noted that the theory of human capital has strong ties to the economy, and individuals react with their investments in such capital based upon market factors. The cost of education is one such market factor. Consider that when the economy is going well, there is a general public tendency to place the emphasis on education. Becker (1993) examined this, highlighting the perceived value of education in the 1980s. Sweetland studied the converse as well, citing that when the economy is going poorly, it is often education that is blamed publicly. Becker examined this during the 1970s, demonstrating that fewer high school graduates during that period went on to college. This indicated a publicly perceived devaluation of a college education.

The concept of human capital investments responding rationally to market factors can be seen equally in the advancement of women in the workplace. While more women graduated from high school than men in the 1960s, they did not enter typical fields that had higher wages; the fact that married women typically did not enter the workforce impacted this greatly. Today, with more women than ever in the workforce and with the acceptance of women in diverse fields, “the value to women of market skills has increased enormously, and they are shunning traditional ‘women’s fields’ to enter accounting, law, medicine, engineering, and other subjects that pay well” (Becker, 1993, p. 19). Thus, women now are

seeing the benefit of an investment in human capital, once seen as unimportant due to the nature of their role in the home and society, “the decline of family size, divorce rates, and the rapid expansion of the service sector” (Becker, 1992, p. 45).

While Denison (1962) and Schultz (1961, 1963) derived their theoretical approach from the macro-level, the economic approach to understanding behavior is best understood at the individual level. It is not, however, truly the individual level that is of interest, but the smaller group of individuals, not to the level of a culture or society, but a small, homogenous grouping. This is true because “rational individual choice is combined with assumptions about technologies and other determinants of opportunities . . . laws, norms and traditions to obtain results concerning the behavior of groups” (Becker, 1992, p. 52). It is these smaller groups of people, perhaps subsets of a sect of society, who chose similar things that are important to study.

While the focus of this study is on high school education, it is important to note some of Becker’s findings relative to a college education. He noted that:

> real wage rates of young high school dropouts have fallen by more than 25 percent since the early seventies . . . young people without a college or a full high school education are not being adequately prepared for work in modern economies. (n.d.)

According to Becker, economists Murphy and Welch noted that the “premium on getting a college education in the eighties was over 65 percent . . . The earnings advantage of high school graduates over high school dropouts has also greatly increased” (as cited in Becker, n.d.). Thus, the relationship between increased education and increased wage opportunities has a positive correlation.

Becker's connection of human capital and education is relatively simple. The greater number of resources attained by an individual, the greater his or her potential beyond the present. In other words, the more education, training, and experience, the greater he or she has for increased value beyond the present day. That value beyond today is measured in such things as wages and positional advancement. To get ahead in the world, one should invest in his or her education and training.

Beyond Becker

The concept of human capital is not something that can be described in a single theory, but rather is a compilation of many different, yet similar, theories rooted in the same general idea. This section focuses on the work beyond Becker's own.

The concept of human capital rests on the "idea that people spend on themselves in diverse ways, not for the sake of present enjoyments, but for the sake of future pecuniary and nonpecuniary returns" (Blaug, 1976, p. 829). Ultimately, it comes down to individual choice. Blaug found that:

> the traditional pre-1960 view among economists was that the demand for post-compulsory education was a demand for a consumption good, and as such depended on given "tastes," family incomes and the price of "schooling" in the form of tuition costs. (p. 829)

Much of that was determined based upon social class, not the potential for rewards at a later date. Since the 1960s, that movement has changed. Today, students make decisions outside of their means to ensure that they can be rewarded in future days.

The impact of education on the decision making of individuals based upon future value is clearly outlined in the theory of human capital. These future values are defined by

Weisbrod (1962) as financial returns, financials options, and opportunity options. Although other factors influence future value, a positive correlation existed between increased investments in human capital and future value. The value of one's ability to obtain additional education, thus enhancing further options, and other options to include "job options, income-leisure-security options, additional-schooling options, on-the-job learning options, way of live options" (p.113) was seen as beneficial to the individual specifically education, and salary.

Taking Becker's very simple notion that training and education advance a person's future value, Blaug and Wesibrod demonstrated strong returns in terms of social class and money earned. Both pointed to education and training, investments in human capital, as the primary impetus for such growth.

Conclusion

While much of the nature of the theory of human capital has purely economic roots, Becker and others have made an adequate translation to the field of education. The important concept to grasp related to human capital was summarized best by Psacharopoulos and Patrinos (2004) when they pointed out that at the individual level, "it is established beyond any reasonable doubt that there are tangible and measurable returns to investment in education" (p. 118).

Future Value

There has been only limited research conducted on the subject of whether or not participation in extracurricular athletics and activities carries with it a future value. This section reviews the literature in existence today related to the concept of future value in three categories: wage attainment, educational attainment, and the value of an education.

The NFHS has compiled a list of three general benefits of extracurricular activities. Two of these three benefits center on the present - that activities support the mission of schools and that activities are inherently educational - and were discussed in an earlier section of this chapter. The third benefit of extracurricular activities is that they have long-lasting effects.

Studying the impact of athletic participation on future value related to individuals or groups of individuals is not easily done. In order to complete such work, it is necessary to study cohorts over extended periods of time, which is difficult, tedious, and, in many cases, not convenient for the researcher. Thus, scant literature exists which covers the impact of athletic participation on variables beyond school, much the same way as the body of work concerning present value relating to athletic participation is limited. Some studies, however, do exist that present important findings relative to this study, although most are from the field of economics and not from education.

Wage Attainment

One of the primary connections between future value and participation in athletics and activities exists in wage earnings. There are a numbers of studies that demonstrate the greater education a person attains will impact his or her future wage earnings. These studies demonstrate that the "education" gained through the interscholastic athletic and activities experience and demonstrate had a positive impact on future wage attainment. In other words, those participating in athletics and activities earned more money later in life than their peers who did not participate.

Barron, Ewing, and Waddell (2000) considered the effects "of participation in high school athletics on later educational attainment and labor market outcomes in terms of

wages and employment" (p. 409). In their work, the authors used the National Longitudinal Study of Youth and the National Longitudinal Study of the class of 1972. Their study focused on males in 1,000 high schools beginning in 1972. Follow-ups were conducted periodically from 1972 through 1979 and again in 1984. Fifty-seven percent of the males surveyed in 1984 "identified themselves as having participated in athletics" (p. 412). Their first finding revealed there was no correlation between employment and participation in high school athletics. In other words, just because an individual participated in high school athletics, he was not more or less likely to have a job. They did, however, make two discoveries pertaining to wage rate and educational attainment which pointed to human capital. With respect to compensation, Barron et al. (2000) found that those involved in their study who participated in high school athletics earned a higher wage in 1985 than did nonathletes, approximately 12 years beyond graduation from high school. They noted that "the wage rate for males who participated in athletic activities in high school is 12% higher [in one data set] . . . and 32% higher [in the other data set]" (p. 415).

Lleras (2008) used the NELS:88 database to examine future wage rates and educational attainment, which will be discussed later in this section, for a tenth grade cohort, 10 years later. Lleras found that the data "are a stratified nationally representative sample of approximately 24,500 eighth grade students in 1,052 public and private schools who were re-interviewed in tenth grade (1990)" (p. 891), and then again in subsequent years to include 10 years beyond high school. Three items from the NELS:88 survey were used in this study to determine participation in extracurricular activities. Unlike Barron et al. (2000) who only focused on males in athletics, Lleras focused on three categories of participation: (a) athletic

participation; (b) academic clubs or academic-related clubs (i.e., yearbook, student government); and (c) fine arts activities (i.e., band, orchestra, choir).

Lleras (2008) found that students involved in activities in their tenth grade year (athletics and academic clubs) had higher earnings 10 years later. In addition, she found that for males the "main effect of fine arts participation on earnings was negative" (p. 899). She noted, however, that for females and African-Americans, participation in the fine arts proved to be beneficial in terms of later earnings. Lleras (2008) concluded that participation in high school activities, particularly athletics and academic-related activities, produced positive results in terms of higher wages 10 years later.

Eide and Ronan (2001) also examined the notion of the effects of athletic participation on educational attainment, discussed in a later section, and earnings. Using the nationally representative *High School and Beyond* data set, specifically the 1980 sophomore cohort, the two examined outcomes in future years compared to participation in the tenth grade and in the twelfth grade.

For males in the study, the impact of athletic participation (either at the tenth grade or twelfth grade level, not varsity specific) was consistent with other studies. The results for White males demonstrated a significant positive impact of sports participation on wage earnings. For nonwhites, the same held true. The results for varsity athletic participation were far different. White male varsity participants were found to have a wage earnings rate that was "not significantly different from zero" (Eide & Ronan, 2001, p. 437). Their study found that Black and Hispanic males who participated in varsity athletics had higher earnings rates later in life.

The study demonstrated the positive effect of athletic participation in educational attainment for females. The findings in both cases (varsity and general athletic participation) for women, however, did not produce positive results. There was no positive effect on future earnings for females who participated in athletics or varsity athletics in high school. The authors noted the fact that this follow-up on earnings was taken only 10 years after high school, and it was possible that the females in this study had not had the opportunity to advance beyond entry-level positions to demonstrate a more robust wage rate (Eide & Ronan, 2001).

Grogger (1996) identified the impact of school expenditures related to future earnings of the individual student. It is important to consider this element because of the large amount of dollars being spent on extracurricular activities and the potential for cash-strapped school districts to eliminate expenditures in this area. Grogger found that a 10% increase in school spending equated to an increase in student wages by only 0.68% (p. 632). At first glance, it would be difficult to advocate for any additional funding based upon this figure. The challenge here is finding a more effective use of money to serve students. Perhaps that is in athletics, perhaps not. Grogger's work did not specifically address athletics, but did demonstrate that teacher expenditures had no effect upon student wage rates increasing later in life. Thus, given other literature, one might suggest that spending more on athletics might be a wise investment.

Otto and Alwin (1977) examined participation in athletics in light of three forms of attainment: educational, occupational, and income. Educational attainment referred to the number of years of formal education completed. Occupational attainment referred to the

type of job and the status of that job. Income referred to income level earned beyond high school.

Using a sample of 340 males studied over time, Otto and Alwin (1977) examined each form of attainment. With respect to occupational aspirations and attainment, a similar set of findings was present. Otto and Alwin (1977) stated that "participation in athletics has a significant effect on occupational attainment statistically controlling on socioeconomic origins, mental ability, academic performance, and participation in athletics" (p. 110). The findings for occupational aspirations were similar.

Income was equal in terms of its relationship to the effect of participation in high school athletics. Otto and Alwin found that "data reveal that participation in athletics in high school also has a positive effect on income fifteen years later" (1977, p. 110). Touching on the notion of human capital and future value, they summarized their study:

> The long-term effects of participation in athletics underscore the significance of adolescent performance criteria other than academic performance in the status attainment process. It has been argued elsewhere that like an academic curriculum, extracurricular activities provide a forum for developing attitudes and skills from which status goals evolve and upon which future success is grounded. (p. 112)

Educational Attainment

A similar number of studies connected participation in athletics and activities to educational attainment. In other words, participation was an indicator of increased educational attainment. These studies demonstrated that those who participated in high school athletics and activities did have greater educational attainment.

Barron, Ewing, and Waddell's (2000) findings concerning educational attainment also yielded significant results, similar to their findings related to wage attainment. Educational attainment for the purpose of this study was defined as earning a degree beyond a high school diploma. Once again, men who participated in athletics were found to have a 25% higher rate of educational attainment in one data set; in the other data set that number was found to be a 35% higher rate (Barron et al., 2000, p. 413). In some respects, this made sense given that that the group also found that those involved in athletics in the study had a higher class rank. In their conclusion, Barron et al. (2000) pointed to human capital, noting that:

> the time devoted to athletics does not result in the acquisition of less human capital and lower subsequent wages, as would be the case if the only role for athletic participation is as a signal of those who place a high value on the consumption of athletics. (p. 420)

Lleras, who studied both wage and educational attainment, uncovered a positive relationship between participation in activities and educational attainment. Although participation in fine arts proved to have little effect, participation in athletics and academic clubs proved to increase the odds of higher educational attainment by "11.5% and 12.5%, respectively" (2008, p. 897). She made this assessment while pointing out that further participation in athletics and academic clubs "was associated with greater educational attainment and earnings" (p. 900) while controlling for factors such as cognitive abilities, socioeconomic factors, and further educational attainment.

Otto and Alwin (1977) also examined participation in athletics with respect to educational attainment. Educational attainment referred to the number of years of formal

education completed. Using a sample of 340 males studied over time, they studied attainment both aspiration and attainment. The researchers found that participation in athletics had a positive effect on educational aspirations and/or a desire to earn a postsecondary degree. The same positive effect was noted with respect to educational attainment as well.

Eide and Ronan (2001) also examined the notion of the effects of athletic participation on educational attainment as well as earnings, discussed earlier in this section. Using the nationally representative *High School and Beyond* data set, specifically the 1980 sophomore cohort, two examined outcomes in future years compared to participation in the tenth grade and in the twelfth grade. For males in the study, the impact of athletic participation (either at the tenth grade or twelfth grade level, not varsity specific) was consistent with other studies. The results for White males demonstrated a significant positive impact of sports participation on the probability of graduating from college. For nonwhites, the same held true. The results for varsity athletic participation were far different. White male varsity participants were found to be less likely to graduate from college (significant at the 10% level) (Eide & Ronan, 2001, p. 437). Their study found that Black and Hispanic males who participated in varsity athletics graduated at a higher rate.

Eide and Ronan demonstrated the positive effect of athletic participation in educational attainment for females. In both varsity sports participation and athletic participation in general, the findings demonstrated that athletic participation had a positive impact on educational attainment, compared to those who did not participate in athletics in high school (with the one exception of Black and Hispanic females who participated in athletics, not varsity athletics).

In their review, Philips and Schafer (1971) pointed to a study conducted by Schafer and Rehberg (1970) that compared athletes and nonathletes. The findings were that athletes generally receive slightly better grades, a present value function of athletic participation, yet also a future value function as it potentially opened doors for further educational attainment. Second, athletes were less likely to be delinquent, a fact with ties to present and future value. And finally, athletes from blue-collar backgrounds were found to be more upwardly mobile than their nonathletic peers (as cited in Philips & Schafer, 1971).

In summary, Schafer and Rehberg made salient points related to the discussion of athletic participation and future value. They noted "convincing evidence that American interscholastic athletes achieve educational goals more than do comparable nonathletes. We have some preliminary evidence that indicates that the athletes share norms that exert a strong pro-school influence on them" (as cited in Philips & Schafer, 1971, p. 336). Although not stated, it can be deduced that such strong norms in support of school tended to serve as a catalyst for an increased desire to obtain additional human capital and, thus, potentially attain more education and earn higher wages.

Further economic studies found additional positive connections to athletic participation. Lipscomb (2007) studied the impact of sports participation in both the present, with math and science test scores, and in the future, with the expectation of future degree attainment. Using NELS:88, he studied those students who participated in any sport or club. His findings were that test scores in math and science increased 1.5–2.0% for those who participated in athletics or activities at one time during high school. There were varying degrees of success related to when the students actually participated (throughout school, in tenth grade only, etc.).

In addition, the study examined future degree attainment. In general, students who participated in athletics and activities in high school had a 5% greater likelihood of expecting to earn a Bachelor's degree. In other words, those who participated in athletics and activities expected to go on to graduate from college more than their peers who did not participate in extracurricular activities (Lipscomb, 2007, p. 472).

Overall, Lipscomb (2007) derived present value from higher test scores and expectations of educational attainment and related those to future values. He stated that "extracurricular involvement provides short-run investment returns on outcomes that are positively correlated to labor market success" (p. 472).

Troutman and Dufur (2007) explored high school sports participation and females. Using NELS:88, they examined whether or not females who participated in high school athletics had higher rates of postsecondary degree attainment than did their nonathletic counterparts. The only variable related to participation used was athletic participation and was a measure of any athletic participation in tenth or twelfth grade. In the sample, approximately 42% of high school females participated in an interscholastic sport in either tenth or twelfth grade. Troutman and Dufur found that "on average, girls who engaged in high school sports were more likely than were those who did not to have completed college 6 years after graduating from high school" (p. 454). In this study, post-secondary educational attainment was defined as earning a bachelor's degree. In addition, those females who participated in a sport had higher expectations of educational attainment than those who did not participate. Their included an analysis that controlled for all factors relating to the school setting. Given the nature of female athletes and the past literature which suggested that private school females might be more greatly impacted by their

"neighborhood," (Troutman & Dufur, 2007), there proved to be no advantage or disadvantage to private vs. public school attendance when the variable of school type was controlled for in the study. In this case, "the odds of graduating from college in 6 years are 41% higher for females who played interscholastic sport than the odds of completion among females who did not engage in high school athletics" (p. 458).

The Value of an Education

A set of studies exists that demonstrated the positive relationship between student values and expectations, an orientation toward educational and occupational achievement, participation in interscholastic athletics and activities, and educational and wage attainment. These studies demonstrated that athletes were more likely to be oriented toward college and higher wages. In other words, students in athletics and activities were more goal-oriented.

Snyder (1969) studied the relationship between participation in activities and high school student values, specifically those values related to educational and occupational achievement. Using an initial sample made up of the high school class of 1962 in a small, diversified Midwestern community, a longitudinal study was conducted. Of the graduates, 50–55% went on to college. At the time the data were collected, 1,000 students were enrolled in the school. The initial sample included 343 students; a follow-up survey accounted for only 186 students after five years (p. 263).

Three main findings were elicited from this study. First, "students who were oriented toward athletics (boys) and activity leadership (girls) were more likely to complete college than were students who preferred to be remembered as either popular or as scholars" (Snyder, 1969, p. 269). Second, there existed a positive correlation between high school participation in social activities to include athletics and clubs and both high school and

college educational achievement (better grades and graduation). Finally, there was a positive association between participation in high school activities and occupational status. These findings led Snyder to write:

> it is evident, however, that participation in activities and athletics is not necessarily contrary to academic pursuits. They are mutually supportive . . . [participation] is associated positively both with immediate and later educational achievement and also with eventual occupational status. (p. 270)

Two studies emerged in a five-year period that addressed the notion of educational expectations. Studies by Rehberg and Schafer (1968) and Spreitzer and Pugh (1973) both addressed the effect of interscholastic athletic participation on college aspirations. Rehberg and Schafer examined data collected from six schools, three public and three private, with nearly 800 senior males attending. Their study involved a survey of 785 students that asked questions pertaining to college expectations and involvement in high school sports. From the data, the researchers emerged with the following analysis:

> These data have shown that a greater proportion of athletes than non-athletes expect to enroll in a four-year college, even when potentially confounding variables of status, academic performance, and parental encouragement are controlled. This relationship is marked among boys not otherwise disposed toward college, that is, those from working-class homes, those in the lower half of their graduating class, and those with low parental encouragement to go to college. (p. 739)

Spreitzer and Pugh (1973) conducted a secondary evaluation of a data set collected at the University of Connecticut where a probability sample of 5,326 high school seniors had been collected. Similar to Rehberg and Schafer (1968), Spreitzer and Pugh found that “the

association between athletic participation and higher educational goals is not eliminated when controlling for parental socio-economic status, parental academic encouragement, student grade average, and measured intelligence" (p. 180).

Both studies highlighted the fact that athletics play a role in the development of expectations of students beyond the classroom or playing field in high school. Accounting for outside variables of influence, in both cases a positive relationship between athletic participation and future expectations of a college education was noted.

Conclusion

A great deal of interconnectivity exists between the present value of participation in interscholastic athletics and activities and the future value of such participation. What could be considered a present value - taking into consideration the fact that activities promote self-esteem - could also be considered a future value in that a student with higher self-esteem might make for a better member of the workforce.

Ultimately, the connection between participation in athletics and activities and human capital boils down to the notion that athletics and activities are inherently educational in the high school setting. This was seen as Gulick moved the structure from the public sector to the field of education in New York City and as the NFHS was formed in the early 1920s. Control was seen as a positive, and control in the arena of the schoolhouse was seen as a must. Perhaps no one person ever stated the value of athletic participation as eloquently as Supreme Court Justice Byron White when he wrote:

> Sports and other forms of vigorous physical activity provide educational experience which cannot be duplicated in the classroom. They are an uncompromising laboratory in which we must think and act quickly and efficiently under pressure and

> then force us to meet our own inadequacies face-to-face and to do something about them, as nothing else does . . . Sports resemble life in capsule form and the participant quickly learns that his performance depends upon the development of strength, stamina, self-discipline and a sure and steady judgment. (as cited in Barron et al., 2000, p. 409)

As athletics and activities have expanded, so has the cry for more opportunities for students. McNeal (1998) wrote about the need to expand access to activities, specifically athletics, to include all demographic groups. His claim was that the focus of the debate on athletic and activity participation needed not to be on the justification of such activities because the research is markedly in support of such educational efforts. Rather, the focus needed to be on finding "ways to maintain the benefits of the extracurriculum as an alternative pathway for minorities, while finding ways to further enhance access for other groups" (p. 190).

The studies outlined herein have demonstrated a variety of different points of view rooted in research. In those studies outlined related to present value, at least some level of positive impact could be discussed relative to participation on academic achievement and student development. With respect to future value, there were studies that demonstrated a positive connection between participation and wage and educational attainment.

It is through the study of economics and, more specifically, through the study of human capital that we discover value in athletics and activities at the high school level. There are numerous studies contained herein that highlight such effects of participation in interscholastic sports. Unlike other areas of education, there is very limited research today on the future value of such participation and much more on the present value.