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ATHLETICS AND OTHER PREDICTORS OF EDUCATIONAL EXPECTATIONS AND ATTAINMENT AMONG HIGH SCHOOL STUDENTS

By

Laura Anne Kietzmann

A DISSERTATION

Submitted to Michigan State University in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Kinesiology

2009

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ABSTRACT

ATHLETICS AND OTHER PREDICTORS OF EDUCATIONAL EXPECTATIONS AND ATTAINMENT AMONG HIGH SCHOOL STUDENTS

By

Laura Anne Kietzmann

This study examines the relationship between the social and personal characteristics of high school students and student educational expectations and attainment. The study uses the National Education Longitudinal Survey-88 (NELS-88) to assess the relationship between the predictor variables and the outcome variables of student educational expectations and attainment. Predictor variables were measured when students were in the 10th grade. Educational expectations were later assessed when the students were in the 12th grade, and educational attainment was measured 8 years after high school. Predictor variables included: (a) strength and exclusiveness of athletic identity; (b) time invested in athletics; (c) time invested in academics; (d) type of sport in which the individual participates; (e) perceived parental and peer encouragement in athletics; (f) perceived parental and peer encouragement in academics; and (g) perceived educational expectations of significant others (i.e., father, mother, peers, teacher, and coach). The ascribed variables of socioeconomic status (SES), gender, race/ethnicity, athletic ability, academic ability, and school size were used as controls. Multiple regressions were conducted to determine the strength of relationships between the predictor and outcome variables. The control variables of academic ability and SES accounted for the largest amount of variance in both the educational expectation and educational attainment regression models. Peer educational expectations and encouragement in both athletics and academics was positively related to student

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educational expectations and attainment. Parental expectations and athletic encouragement also played a significant role in educational expectations. Surprisingly, perceived educational expectations by coaches were negatively related to student educational expectations and attainment. Student-athletes who were not seen as good students and not very athletically talented were found to be at risk of developing low educational expectations and attainment. Sport participation was not found to negatively impact educational expectations and attainment. Possible explanations, implications, and future directions related to these findings are discussed. Copyright by LAURA ANNE KIETZMANN 2009

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This dissertation is dedicated to my family and friends who have always provided encouragement and support, especially my mom and dad, my brother and his family, and my wonderful husband, Reed. Thank you.

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CHAPTER I

INTRODUCTION

Education is a highly valued and prized human right of American society. Employers make completion of a high school diploma or college degree a requirement for many American jobs, and the U.S. government allots \$62.6 billion to the U.S. Department of Education with an additional \$96.8 of funding through the American Reinvestment and Recovery Act of 2009 (U.S. Department of Education, 2009). Society places a heavy emphasis on educational attainment for a variety of reasons. Higher levels of educational attainment have been found to be related to lower levels of negative affect, better health, and better overall life satisfaction among individuals 55 years and older (Meeks & Murrell, 2001), as well as higher levels of occupational status attainment (Blau & Duncan, 1967). Kubzansky, Berkman, Glass, & Seeman (1998) have found that low levels of education are associated with poorer psychological functions, lower levels of happiness, increased tobacco consumption, and decreased levels of physical activity in a study of 1192 participants aged 70-79. Knowing the many benefits of educational attainment in the U.S., it is important to learn about the factors that may contribute to educational aspirations and attainment early in life and foster the development of such factors amongst youth in order to heighten their overall life satisfaction in adulthood.

A critical point in which individuals are developing their educational aspirations occurs during adolescence. During adolescence, an individual is developing his or her identity (Erikson, 1968). Individuals establish their personal life philosophies as they make choices and decisions regarding their beliefs, ethics, values, and more during adolescence (Corey, 2001). Extracurricular activities that are popular among U.S.

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teenagers should not be overlooked in terms of their contribution to shaping life philosophies, identities, and expectations. High school athletic participation is particularly high among U.S. teens. The 2000 U.S. Census reported 3,832,352 males and 2,652,726 females participate in sport for a combined total of 6,485,078 high school athletic participants.

Because the chief period of identity development takes place during adolescence and the popularity of sport participation among U.S. high schoolers, many individuals involved in athletics are likely to incorporate the role of the athlete into their sense of self. Athletes develop what is called an athletic identity. Brewer, Van Raalte, and Linder (1993) define athletic identity as "the degree to which an individual identifies with the athlete role" (p. 237). Athletes with a strong and exclusive athletic identity may be focused solely on athletic performance, which can hurt academic performance (Hauser & Lueptow, 1976; Landers & Landers, 1978). Additionally, the intense focus on athletics by some individuals may hinder college preparation among high schoolers and take time away from developing and pursuing higher educational expectations.

While there seems to be relatively little literature that examines the academic attainment of high school athletes themselves, the research that does exist seems to be vague, inconsistent, and inconclusive. Some past studies have indicated positive results for sport participation revealing that high school student-athletes had higher educational expectations than non student-athletes (Bend, 1969; Hanks & Eckland, 1976; Phillips & Schafer, 1971). Others have claimed that high school athletics does not necessarily prepare student-athletes for success in post-secondary education or foster interest in higher education (Alder & Alder, 1985; Purdy, Eitzen, & Hufnagel, 1982). It is

ir a is pa W sc an the co tha bet bas boo rate resp gra resp rest a w spor gene important to look further into the relationship between high school athletic participation and educational expectations and attainment to find out whether or not sport participation is beneficial to an individual's education and overall life satisfaction.

Many factors must be considered when looking at the impact of athletic participation on educational expectations and attainment, including the type of sport in which an individual participates. Again, little research has been conducted at the high school level to explore the relationship between the type of sport an athlete participates in and academic attainment. However, some research has been conducted on this topic at the collegiate level. For example, Purdy, Eitzen, and Hufnagel (1982) found that among college athletes, those participating on team sports have lower academic attainment rates than athletes competing in individual sports.

The NCAA (2007) has also reported some differences in academic attainment between the types of sport in which athletes participate. The graduation rate of men's basketball players at 46% was 13% lower than a matched sample of the general studentbody's graduation rate at 59%. Similarly, football players were found to have graduation rates significantly lower than the general student-body's population at 55% and 62%, respectively. The same report also stated that student-athletes as a whole had a graduation rate slightly higher than the general student-body population at 63% and 62%, respectively. These statistics may indicate that care should be taken when interpreting results comparing sport participation and positive outcomes. While sport participation as a whole was found to be associated with higher graduation rates, revenue-producing sports (football and men's basketball) were found to have lower graduation rates than the general student-body population. Research needs to be conducted to find out whether or

а P e? ап ex ex ind rou sch and rise rep₀ expe who, But w acade devel(less ac not these trends of sport participation hold true at the high school level and what can be done to change the negative trends of revenue-sport participation on academic attainment.

In addition to the type of sport an athlete participates in, significant others may also play a role in the educational expectations and attainment of high school students. Parents, peers, teachers, and coaches may all hold some form of an educational expectation for an athlete. Educational expectations of significant others may influence an individual's identity development. If a student-athlete perceives that he or she is expected to attain a degree from a four-year college, he or she may work hard to meet expectations. The investment of hard work in academics may be incorporated into the individual's identity as he or she grows to value academics. This may create a wellrounded identity including both athletic and academic values. Those who are both scholars and athletes demonstrate more positive characteristics in terms of self-esteem and self-control than do those who are exclusively athletes (Snyder & Spreitzer, 1992).

In general, the educational expectations parents have for their children are on the rise (Schneider & Stevenson, 1999). Seventy-six percent of high school seniors in 1992 reported having parents who expected them to earn a college degree or more. These high expectations of parents and other significant others may be internalized by the students who, in turn, develop their own set of high academic expectations and desire to achieve. But what would happen if parents placed a greater emphasis on athletic development than academic development? Would student-athletes concentrate their energy on the development on the athletic role at the expense of the academic role, thereby achieving less academically?

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Additional significant others, such as teachers, may play a role in the development of both the athletic and academic role of high school students. Some studies suggest that student-athletes receive more educational encouragement than non-athletes from teachers, and that this disparity grows larger as student self-aspirations decline (Schafer & Rehberg, 1970). This would suggest that being a student-athlete may be an asset when receiving academic encouragement from teachers. However, the findings of Schafer and Rehberg (1970) may be misleading. Nicholi (1987) has suggested that teachers have been known to break rules for student-athletes to ensure eligibility. Some studentathletes may interpret this academic "help" as encouragement, which could possibly be harmful to a student-athlete's academic success. Much care should be taken with the interpretation of academic encouragement from teachers.

In addition to teachers, educational encouragement and expectations from peers have been found to be controversial as well. Schneider and Stevenson (1999) have found, through longitudinal research of high school students, that peers hold little influence on a student's educational aspirations. However, student-athletes seem to have much more intense bonds than the general student population, and the student-athlete bonds are much more regulative of behavior (Phillips & Schafer, 1971). Attitudes shared by athletes seem to be much more positive in terms of educational aspirations than nonathletes (Schafer & Rehberg, 1970). More research needs to be conducted in this area to find how peer encouragement and expectations affect student educational expectations and attainment when controlling for a variety of factors, such as athletic participation.

Another significant other who may play a role in student educational expectations and attainment is the coach, which has gone largely overlooked in the past. Behaviors

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and career expectations of coaches have been speculated to affect the career expectations, norms, and beliefs of student-athletes (Lee, 1983; Phillips & Schafer, 1971). Coaches spend a great deal of time with student-athletes, and their influence on educational aspirations and attainment should not be ignored. Future research should be conducted to find how educational expectations of a coach may affect the educational expectations and attainment of student-athletes.

The influence and expectations of significant others may also affect the amount of time that an athlete invests in sport and academics. Following from this, investment in sport and/or academics may influence identity development and career exploration beyond sporting careers, as well as educational expectations. For example, the more time an athlete spends playing and studying one specific sport, the less time the athlete has to develop other areas of his or her identity (Petitpas & Champagne, 1988).

Certain demographic variables, such as gender, race, and SES, may be controlling factors when examining student-athletes' educational expectations and attainment. In the past, males have been found to have higher educational goals and educational achievement than females at both the high school and collegiate levels (Alexander & Eckland, 1974; Berman & Haug, 1975). Purdy, Eitzen, and Hufnagel (1982) found male student-athletes have lower academic achievement than males in the general student population and female student-athletes have slightly higher GPAs than females in the general student population. Similar trends have been found for race with white students completing higher levels of education than black students (Jacobson et al, 2001), and black student-athletes achieving higher graduation rates than their non student-athlete counterparts while white student-athletes achieve lower graduation rates than their white

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student-athlete counterparts (NCAA, 2007). SES is the third demographic that has been found to be an important predictor of educational performance and educational expectations, with children of high SES being less likely to drop out of school (Rouse & Barrow, 2006).

Two additional ascribed variables that have been shown to predict educational expectations and/or attainment are academic and athletic ability (Bend, 1968; Sewell, Haller, & Portes, 1969; Sewell & Shah, 1967; Wilson & Portes, 1975). Academic ability is a large factor in the prediction of educational expectations and attainment. Not much research, however, has been conducted on athletic ability and educational expectations/attainment. Most studies look at athletic participation rather than ability. However, because a major focus of this study examined athletic identity via perceptions in how others viewed the participant's athletic and academic abilities, it would follow that this study should control for athletic ability in addition to controlling for academic ability. Future research must control for these variables and the demographic variables to attain an accurate picture of the psychosocial factors (e.g., athlete identity and expectations of significant others) that influence educational expectations and aspirations among student-athletes.

This dissertation examined what factors are predictive of high levels of educational expectations and educational attainment among high school students. Educational attainment was assessed in terms of the level of post-secondary education reached by high school students. Bend (1968) found that the superior athletes in high school actually attended some college 20% more frequently than non-athletes at 71% and 51%, respectively. However, this research has become outdated and groups all athletes

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Purpose

The purpose of this study is to examine how social and personal characteristics of an individual high school student are related to educational expectations and attainment among a nationally representative sample of high school students. The National Education Longitudinal Survey-88 (NELS-88) was used to examine these relationships. Predictor variables included: (a) strength and exclusiveness of athletic identity; (b) time invested in athletics; (c) time invested in academics; (d) type of sport in which the individual participates; (e) perceived parental and peer encouragement in athletics; (f) perceived parental and peer encouragement in academics; and (g) perceived educational expectations of significant others (i.e., father, mother, peers, teacher, and coach). Outcome variables included: (a) SES; (b) gender; (c) race/ethnicity; (d) athletic ability; (e) academic ability; and (f) school size. A heuristic model for each of the outcome variables is depicted in Figures 1 and 2.


Figure 1. Heuristic for Student Educational Expectations





Hypotheses

The following hypotheses were tested:

- Significant predictors of higher 12th grade educational expectations are lower strength and exclusivity of athletic identity, less time devoted to sport, more time devoted to academics, participation in non-revenue sports (baseball/softball, soccer, swim team, etc.), greater academic encouragement from parents and peers, lower athletic encouragement from parents and peers, and higher educational expectations from significant others (father, mother, peer, teacher, and coach).
- 2. Significant predictors of higher educational attainment are lower strength and exclusivity of athletic identity, less time devoted to sport, more time devoted to academics, participation in non-revenue sports (baseball/softball, soccer, swim team, etc.), greater academic encouragement from parents and peers, lower athletic encouragement from parents and peers, and higher educational expectations from significant others (father, mother, peer, teacher, and coach).

Definitions

Terms relevant to this study are defined as follows:

Athletic Identity. Brewer, Van Raalte, and Linder (1993) define athletic identity as "the degree to which an individual identifies with the athlete role" (p. 237). *Educational Expectations*. Operationally defined by NELS-88 variable F1S49 (how far in school respondent thinks he will get).

Educational Expectations of Significant Others. Operationally defined by what the respondent believes his mother's (F1S47B), father's (F1S47A), friends'

(F1S47C), teacher's (F1S47F), and coach's (F1S47G) expectations are for the respondent after high school. Variables in parentheses represent the NELS-88 item number for the variable.

Strong and Exclusive Athletic Identity. Operationally defined as the selection of 1 (very) on NELS-88 variable F1S67B (seen as athletic) and the selection of 3 (not at all) on NELS-88 variable F1S67D (seen as a good student). Measured by identifying as an athlete in the absence of identifying as an academic.

Assumptions

- 1. Participants responded honestly to all questions in the NELS:88 survey.
- 2. Participants comprehended all questions on the NELS:88 survey.
- 3. NELS:88 items chosen to be included are an accurate representation of variables in the study.

Delimitations

This study was delimited to U.S. high school students. Results will not necessarily generalize to the following populations:

- 1. Collegiate and professional athletes
- 2. High school students from countries other than the United States

Limitations

Some of the variables used in the study were not directly measured by NELS variables, thus causing a problem of validity of some of the variables. Another limitation of the NELS database is that it is now somewhat dated, and perceptions and attitudes by students may have changed.

CHAPTER II

REVIEW OF LITERATURE

An understanding of the effects of high school sport participation on adolescent development is essential in this day and age when sport participation among adolescents is reaching astounding numbers. It is important to acquire knowledge of the factors that can contribute to the development of high school student-athletes who are successful in multiple areas of life, including academics. Student-athletes who possess an identity that is highly and exclusively centered on athletics may be less successful in life. An identity solely focused on athletics may be detrimental to an individual in terms of lowered educational and career expectations (Sandstedt et al., 2004). More research, especially longitudinal, is needed to illustrate the possible relationship between athletic identity and educational attainment. Possible predictors of educational expectations and attainment include athletic identity, encouragement from significant others, and the type of sport in which an athlete participates.

This chapter provides a review of the literature on the variables that are associated with academic expectations and academic achievement of athletes. The first part of the chapter deals with past research on the educational expectations of the general student body, and then focuses in on the educational expectations of student-athletes. The section on educational expectations is followed by a description of the educational attainment of the general student population and the attainment specific to studentathletes. The chapter concludes with a description of variables that may be influential in the prediction of educational expectations and educational attainment among high school student athletes including the strength and exclusiveness of athletic identity, the athlete's

perceived encouragement in athletics and academics by significant others, the athlete's perceived expectations of significant others, time investment in athletics and academics, and the type of sport in which the athlete participates. Other controlling factors such as gender, race/ethnicity, and SES are also discussed.

Educational Expectations

Research in the late 1960s through the 1970s indicated that participation in athletics was positively correlated with educational attainment expectations (Bend, 1968; Schafer & Rehberg, 1970; Spady, 1970). In a study of 10th grade high school boys, Schafer and Rehberg (1970) found that 83% of high school athletes aspired to complete 4 years of college, while only 68% of non-athletes aspired to complete 4 years of college. Aspirations of completing at least 2 years of college were very high for both athletes and non-athletes with percentage levels reaching 96% and 90%, respectively. Bend (1968) reported figures of athletes aspiring to attain at least some college education as much as 25% more often than non-athletes.

Some researchers have speculated at the causes of the differences in educational expectations between athletes and non-athletes. One such speculation for the discrepancy is that athletes may receive more and better career counseling and encouragement because athletes are highly visible within the school system (Schafer & Rehberg, 1970). In an effort to delve deeper into this speculation, Schafer & Rehberg (1970) looked at the effect of maternal educational encouragement and found that athletes exceeded non-athletes in educational aspirations even after the controlling for maternal educational encouragement. However, controlling for solely maternal educational encouragement

left many avenues of encouragement that needed yet to be explored, such as paternal, peer, teacher, and coach encouragement.

One study that continued to look at the relationship of athletics and educational aspirations has shown that, among high school males, "athletics has [a positive] effect on educational aspirations statistically controlling for socioeconomic origins, mental ability, and academic performance" (Otto & Alwin, 1977, p. 108). This study, conducted by Otto and Alwin (1977), also found educational encouragement by significant others (parental and peer) as a mediating variable accounts for 43% of the effect of athletic participation of career aspirations. Athletic participation was also found to have a positive effect on occupational aspirations. While this study demonstrates the importance of educational encouragement by significant others (parental and peer) in the determination of student-athlete educational aspirations, it does not take the athletic encouragement of athletics may influence educational expectations in negative ways by encouraging student-athletes to focus solely on sport and neglect academic development.

Further research needs to be done in this area to retrieve up-to-date figures that take into account more diverse populations that are more highly generalizable. In a more recent, in depth study, Schneider & Stevenson (1999) found that high school students were highly ambitious when it comes to educational attainment. Ninety percent of high school seniors in the study expected to attend some type of college. This far exceeds the 55% of high school seniors who expected to attend college in the 1950's. Social scientists need to study how this finding of a decade ago relates to the athletic populations of today. Are the academic expectations of high school athletes rising at the

same rate as the rest of the high school population? If not, why? Additionally, further research should study the effects of athletic participation in a comprehensive manner accounting for the variables studied above such as encouragement from significant others in both academics and athletics, mental and physical abilities, gender, and socioeconomic status (SES), as well as additional variables, such as strength and exclusivity of athletic identity, type of sport, ethnicity, time devoted to athletics and academics, and educational expectations of significant others.

Academic Attainment

While the results of earlier studies indicate that high school athletic participation leads to positive educational expectations (Bend, 1968; Hanks & Eckland, 1976; Phillips & Schafer, 1971), research also indicates high school athletics "does not necessarily enhance or develop those academic characteristics necessary for success in college" (Purdy, Eitzen, & Hufnagel, 1982, p. 440). In fact, some suggest athletes are neither prepared for nor interested in higher education, only going to college to further their athletic careers and not the academics (Adler & Adler, 1985). To find out whether or not high school athletic participation helps or hinders individuals from the attainment of educational expectations and goals, we must look further into the relationship between athletics and academic attainment.

Most information dealing with educational level attainment by athletes deals with collegiate student-athletes. College athletes have been found to attain lower levels of academic attainment than non-athletes. Sack and Thiel (1979) found that athletes at the University of Notre Dame were less likely to earn advanced degrees than the general student population. Additionally, Purdy, Eitzen, and Hufnagel (1982) studied the

academic attainment of over 2000 college student-athletes at a Division I western university and found "athletes were less prepared for college and achieved less academically in college than the general student population" (p. 439). The college athletes in this study had lower GPA's and graduation rates than the general student body. Forty-nine percent of the college athletes in the study who played as seniors did not graduate.

The researchers speculated that the low graduation rates of college athletes may be explained by the hypothesis that athletes may feel they owe their coaches their undivided attention because the coaches are the ones in charge of paying for their school via scholarship allocation, thereby neglecting their academic studies. Others have suggested that athletes enter college with the assumption that they will automatically earn a degree after 4 years simply for attending school (Alder & Alder, 1985). The athletes are often not prepared for the college workload and sometimes hold the belief that they will receive academic breaks just for being athletes. The neglect of academics by college athletes may also be explained by the postulation that athletes have a strong and exclusive athletic identity and drive to make it to the professional level of sport, focusing all attention on the betterment of their athleticism.

More information on the current graduation rates of the National Collegiate Athletic Association (NCAA) Division I athletes can be found in research publications conducted by the NCAA (2007). Overall, the graduation rates of the student-athletes and the general student body population were remarkably similar, with the entering class of freshmen in the year 2000 graduating at a rate of 63% and 62%, respectively, within 6 years. However, the differences in graduation rates were much larger for certain

subgroups based upon gender, race, and type of sport, which is discussed in greater detail later in this chapter.

While studies show mixed findings between college athletic participation and academic attainment, there is relatively little empirical research on the relationship between high school athletic participation and level of higher education achieved. What literature does exist is vague, inconsistent, and inconclusive. Some researchers, such as Coleman (1960), have insinuated that high school athletics can be anti-academic in nature. Others have suggested some positive findings for high school athletic participation (Phillips & Schafer, 1971; Bend, 1968). Bend (1968) found that over 71% of the superior athletes in high school actually attended some college, while only 51% of non-athletes attended college. However, this may be due to athletes' higher chances of being admitted in the first place compared to non-athletes (Shulman & Bowen, 2001). Much more current research needs to be conducted in this area to reach more conclusive and reliable findings.

Many people have heard anecdotes of CEOs and presidents of successful companies who had received their start in high school athletics. However, there is no empirical evidence that the success of these people can actually be attributed to athletic participation while controlling for a number of factors, such as SES, ability, and encouragement from significant others. Researchers need to look at the effects of high school athletic participation on academic achievement in an inclusive manner, controlling for as many factors as possible and isolating athletic participation and athletic identity as predictors. It is important to know whether or not athletes are reaching their potential in

academic achievement because the attainment of a higher educational level is positively associated with life satisfaction among athletes (Lerch, 1981).

Predictors of Academic Expectations and Attainment

In addition to athletic and academic identity, a number of other factors may be associated with the academic expectations and higher educational attainment of high school athletes that should be examined. The following variables are discussed in detail: athletic and academic identity, athletic and academic encouragement and expectations from others, time allocation to athletics and academics, and type of sport. Additionally, the control variables of gender, race and ethnicity, SES, academic ability, and athletic ability are discussed.

Athletic and Academic Identity

One very important factor that may have a great impact on the academic aspirations and attainment of student-athletes is the degree to which an athlete defines him or herself by his or her athletic role. An individual's identity is a reflection of the values and beliefs the individual holds. Identity is an important aspect of every individual because it guides how people define themselves and behave (Stryker,1980). Athletic participation can play an important role in the development of an individual's identity (Goldberg & Chandler, 1989). Many people develop multiple senses of self, roles, or identities which are often organized in a hierarchy depending on the meaning and importance of each role to the individual (Killeya-Jones, 2005; Stryker, 1987). An identity that is highly and exclusively centered on athletics may be detrimental to an individual in terms of life satisfaction, self-esteem (Kleiber & Malik, 1989), transitional problems (Alferman, Stambulova, & Zemaityte, 2004; Baillie & Danish, 1992; Brewer,

Van Raalte, & Linder, 1993; Crook & Robinson, 1991; Grove, Lavallee, & Gordon, 1997; Ogilvie & Howe, 1982), and lowered educational and career expectations (Sandstedt et al., 2004).

Identity development. Identity development and formation is a gradual, life-long process in which individuals experiment with different personality characteristics until they find the characteristics by which they come to define themselves (Erikson, 1968). Identity development is an important stage in Erikson's (1968) psychosocial stages of development, which are often used to describe the psychological development of individuals from birth through adulthood (Corey, 2001). Although the process of identity formation is defined as ongoing, the chief experimental period for personality characteristics and identity development is said to take place during adolescence, coincidently a time when sports also become more prominent in some individuals' lives (Erikson, 1968).

Erikson's psychosocial stage of "Identity vs. Identity Confusion" takes place during adolescence and the high school years (Erikson, 1968; Hamachek, 1988). Therefore, athletes at the high school level who are working their way through adolescence are likely to have incorporated the role of being an athlete into their selfdefinitions. The adolescent period is said to cover the age range of 12 to 18 years (Erikson, 1968). This is the time period where, according to Erikson (1968), children transition into adulthood and establish new identities by testing limits and breaking dependent ties. Adolescents develop their personal life philosophies as they make choices and decisions regarding their religious beliefs, sexual ethics, and values.

Adolescents often look up to role models to help them establish their own identities and avoid identity confusion.

Identity confusion may result from an individual failing to incorporate his or her new roles and values into a stable personality identity (Hamachek, 1988). For instance, identity confusion may occur among student-athletes who fail to successfully incorporate their athletic role into their overall identity. Individuals who have a sense of identity confusion tend to have an unstable self-concept, low levels of self-acceptance, trouble making decisions, and more susceptibility to peer pressure (Erikson, 1968; Hamachek, 1988). Alternatively, individuals who have achieved a sense of integrated identity tend to have a stable self-concept that does not easily change. Individuals with a successfully integrated sense of identity experience higher levels of self-acceptance and are less susceptible to peer pressure than those who experience identity confusion. Individuals with a successfully integrated sense of identity have a greater sense of who they are as a person than those who experience identity confusion.

Achieving an integrated and stable identity may be particularly difficult for adolescents who are attempting to balance multiple roles that may conflict in terms of values and expectations. For example, a student-athlete who feels pressure to develop both the student (academic) role and the athletic role may fail to achieve an integrated balance between roles. This process of role integration and balance is not an easy task; it may lead to identity confusion and developmental problems. As explained by Goldberg & Chandler (1995), "many of the developmental problems student-athletes experience result from their attempts to balance conflicting roles, values, and expectations" (p. 39). Thus, a student-athlete who prioritizes athletics over academics may be more likely to

focus the majority of his or her time on athletic development at the expense of academics. The student-athlete may fail to complete homework assignments and also fail to participate in other academic and social experiences.

The development of different roles and identities has often been associated with specific types of extracurricular activities in which adolescents engage (Eccles & Barber, 1999; Guest & Schneider, 2003). For example, high school students may develop different identities related to athletics, band, student council, volunteer services, and academics. Each role carries with it an identity unique to that particular role. Individuals may identify with different roles to varying degrees.

Athletic identity. Athletic identity has been defined as "the degree to which an individual identifies with the athlete role" (Brewer, Van Raalte, & Linder, 1993, p. 237). Athletic identity is stronger in individuals who build their psychological identities around their athletic role, thereby centering their sense of self on the athletic role (Miller & Kerr, 2003). Brewer and colleagues (1993) found that athlete role identification was stronger in males than females and negatively correlated with age in their study of 124 female and 119 male students enrolled in introductory psychology courses at Arizona State University using the Athletic Identity Measurement Scale (AIMS) as the instrument of assessment. While reasons for this trend have yet to be empirically identified, research previously conducted by Goldberg and Chandler (1989) may be tied to the finding that athletic identity is stronger among males than females.

Goldberg and Chandler (1989), in their study of 1,255 high school students (636 female and 619 male) from urban, suburban, and rural parts of upstate New York, discovered that male high school students believed that being both an outstanding student

and an outstanding athlete in high school were each determinants of future status. On the other hand, the researchers also found that high school females identified being an outstanding student as the most important determinant of future status. The fact that males identified being an outstanding athlete as a route to future status while females did not may account for some of the variation between males and females in relation to athletic identity. Males who have a hard time with academics and view being an outstanding high school athlete as a means of acquiring future status may decide to focus all of their attention on the development of the athlete role while ignoring the academic role. The athletic role may become a central part of the identity for these individuals, creating a strong athletic identity among males. Females, on the other hand, generally do not see being an outstanding athlete as a determinant of future status, and may be less likely to develop strong athletic identities.

Although the specific reasons for the trend of athletic identity being stronger in males than females has yet to be explored in a systematic manner, one may speculate that males experience stronger athletic role identification for sociological reasons. Take, for example, the position that sports are viewed by many as a ground for the development and perpetuation of masculinity (Coakley, 2004). Add to this position the fact that male revenue-producing sports (i.e., football and basketball) are built up by the media to be a means of upward socioeconomic mobility. If society and significant others reward athletes for their success in sport while ignoring other areas of the athlete's personality and personal achievement, the athlete may rely on sport for establishing self-worth and identity (Lanning, 1982).

Strong and exclusive athletic identity. The dependence on athletics for a sense of self may develop into what many researchers have termed a strong and exclusive athletic identity. An individual with a strong and exclusive athletic identity defines him or herself solely in terms of the athletic role. While some have pointed out that the possession of a strong and exclusive athletic identity may carry some benefits, such as a possible positive relationship to performance (Danish, 1983; Werthner & Orlick, 1986) and a greater likelihood of participating in exercise (Kendzierski, 1988, 1990), most research and theorizing has indicated that a strong and exclusive athletic identity brings negative consequences to an individual (e.g., Crook & Robertson, 1991; Grove, Lavallee, and Gordon, 1997; Petitpas & Champagne, 1988).

One of the negative consequences of a strong and exclusive athletic identity is the potential for an athlete to focus solely on athletics and neglect his or her academic achievement and psychosocial development (e.g., Chandler & Goldberg, 1990; Coleman, 1961; Danish, 1983). College student-athletes with a strong athletic identity, as measured by high scores on the Athlete Identity Measurement Scale (AIMS), have been found to place less importance on academics than students with lower scores on the AIMS (Settles, Sellers, & Damas, 2002). Viewing academics in terms of low importance may hinder a student-athlete with a strong athletic identity in his or her pursuit of academic excellence.

A strong focus on athletics, which is found to accompany a strong athletic identity by definition, also hinders actual academic performance and college preparation among high schoolers (Hauser & Lueptow, 1978). Hauser and Lueptow (1978) studied 852 high school senior males and found that students who were highly involved in athletics had a

.02 point increase in GPA from their sophomore to senior year, while non-athletes showed a more marked increase in GPA of .11 points between the sophomore and senior year. This contradicts much research that has found academic performance to be positively related to athletic participation (Jeziorski, 1994). The apparent contradiction between prediction of academic performance in relation to athletic participation highlights the importance of taking strength of athletic identity into consideration when looking at the relationship of high school athletic participation and other variables. Participation in athletics may be beneficial for student-athletes depending on the strength of the student-athlete's athletic identity and whether or not it is balanced with other integrated roles, such as academics. Given prior findings and contradictions, one important question to answer is, "How does a strong and exclusive athletic identity influence academic expectations and academic achievement among high school studentathletes over time and beyond the high school years?"

While more research needs to be conducted in this area, there is evidence to support that the development of a well-rounded, less exclusive identity among athletes is beneficial to academic success. Landers, Feltz, Obermeier, & Brouse (1978) found student-athletes who participated in additional extracurricular activities and experienced extracurricular roles had higher scores on the SAT than the national average. Additionally, student-athletes who did not participate in any additional extracurricular activities had lower scores on the SAT than the national average. These findings demonstrate that student-athletes with a non-exclusive focus on athletics can participate in athletics while still excelling in academics. The presence of a non-exclusive athletic identity may be essential in the development of positive behaviors among student

athletes. More research needs to be conducted to determine whether or not exclusiveness of athletic identity is related to other positive behaviors among student-athletes. Additionally, past research has failed to look at academic success longitudinally, in terms of highest level of education attained. High school student-athletes may perform well academically on nationally standardized tests, but may have little motivation to obtain a college degree while dreaming of "going pro" in athletics.

Athletes may have a scholarly (academic) identity in addition to their athletic identities. Eckert (1989) conducted an ethnographic study on high school students and found the term 'jock' can mean both 'athlete' and academic 'achiever'. In fact, male high school students who identify themselves as both scholars and athletes have higher ratings of self-esteem, internal control, and extracurricular activity involvement than 'exclusive' athletes (Snyder & Spreitzer, 1992). Additionally, student-athletes who hold a positive image of the student role may experience greater psychological well-being than those who do not view the student role positively (Killeya-Jones, 2005). Among college football players, a positive evaluation of the student role was found to be positively related to student and athlete role convergence. Student and athlete role convergence, in turn, was positively related to psychological well-being. In order to develop and integrate the athletic and the academic role, it is important for student-athletes to evaluate scholarship positively. Therefore, encouraging student-athletes to develop and embrace their academic role in addition to their athletic role may provide positive psychological benefits for student-athletes.

However, the pressure to commit to one role (either academic or athletic) may be great. Snyder and Spreitzer (1992) found that 29% of scholar-athletes left their athletic

role and became pure scholars from their sophomore to senior year of high school. No information was provided on the number of scholar-athletes who became exclusive athletes from their sophomore to senior year. Without these data, it is difficult to determine the validity of the suggestion that committing to more than one role is difficult for high school students.

The process of committing to more than one role and successfully integrating the roles without experiencing identity confusion is not well laid out in previous literature. As previously mentioned, successful integration of the athletic and academic role is more likely when the student-athlete views both roles positively (Killeya-Jones, 2005). This positive view of both the athletic and academic roles may give the student-athlete the desire to develop both roles equally by allocating a balance of time and energy to the development of each identity. Additionally, encouragement from role models and significant others may be needed to help student-athletes internalize both the athlete role and the academic role into their integrated sense of self and avoid identity confusion (Erikson, 1968; Hamachek, 1988).

Identity foreclosure. The concept of a strong and exclusive athletic identity, described above, is strongly related to the identity status of foreclosure. Identity foreclosure occurs when an individual makes a serious commitment to a socially prescribed role without thoughtfully investigating alternative available roles first (Marcia, 1966; Miller & Kerr, 2003). A strong and exclusive focus on athletic excellence may lead to role foreclosure among those who foresee a professional athletic career, in particular. According to Goldberg and Chandler (1995), adolescents are especially at risk

of becoming so engulfed in a role that their motivation to explore alternative roles is reduced.

Evidence of identity foreclosure has been found among the student-athletes of the college population as well (Murphy, Petitpas, & Brewer, 1996; Petitpas & Champagne, 1988). Murphy and colleagues (1996) discovered male and female Division I athletes had significantly higher scores on measures of identity foreclosure than the general student population. Analysis of the results led the researchers to conclude that male varsity student-athletes in revenue producing sports may be particularly affected by identity foreclosure. The results of this study, however, should be carefully interpreted. Murphy and colleagues (1996) used the Objective Measure of Ego Identity Status (OM-EIS; Adams, Shea, & Fitch, 1979) as a measure of identity foreclosure. While this scale takes into account domains such as occupation, religion, and politics and may be a good measure of general identity foreclosure among all populations, it is not specific to sport. Investigators still have little information on student-athletes who make a strong and premature commitment to the athlete role without exploring alternative available roles.

Athletic identity foreclosure is related to unrealistic educational and career plans (Blann, 1985; Kennedy & Dimick, 1987; Sowa & Gressard, 1983). "Failure to explore alternative roles and identifying strongly and exclusively with the athlete role are associated with delayed career development in intercollegiate student athletes, and male varsity student-athletes may be especially at risk for impaired acquisition of career decision-making skills" (Murphy, Petitpas, & Brewer, 1996, p.239). Research on this area should be expanded to study the effects of a strong and exclusive athletic identity at

the high school level, when student-athletes are going through adolescence, the critical time period for career and identity development.

Athletic and Academic Encouragement and Expectations from Significant Others

The significant others in an athlete's life, such as parents, teachers, coaches, and peers, may play a role in contributing to the athlete's athletic identity. Significant others may build an individual's sense of athletic identity by reinforcing certain athletic behaviors, such as training and practice (Lanning, 1982). When significant others reinforce only an individual's athletic behaviors, the individual may grow to value only his or her athletic identity. Examples of this type of reinforcement could include a parent encouraging a child to put in long hours practicing and watching sport while ignoring the child's studies. McPherson (1980) noted that athletes are often positively reinforced for athletic behaviors early in their athletic career. It is important to make a positive impact on an athlete's identity development by supporting the development of alternative identities (and thereby encouraging an identity that is not exclusively focused on athletics) before or during adolescence, while the student-athlete is in the process of developing his or her sense of self.

Shafer and Rehberg (1970) have noted that success in one sphere of an adolescent's life, such as athletics, may heighten the expectations of significant others in alternative spheres of the adolescent's life, such as academics. If this is true, more highly skilled athletes may have higher expectations placed upon them in the classroom. How these expectations are dealt with is another question that needs exploring. Do heightened expectations become internalized by student-athletes and become a part of their own

personal expectations, or do student-athletes reject the expectations placed on them by significant others?

Parents. In general, parents who are active in their students' school lives hold higher expectations of their children, and these high expectations are often internalized by the children themselves (Qian & Blair, 1999; Useem, 1992; Wilson & Wilson, 1992). Parental involvement in school activities was found to be most significant in predicting educational aspirations among African Americans and Latinos (Qian & Blair, 1999). However, some research has indicated that parental support is very influential among students in general, not just minorities. In an investigative report of American high school students, Schneider and Stevenson (1999) found that over 88% of the students who reported their parents were highly supportive of them also expected to earn a college, professional, or advanced degree. This research would suggest parental support is highly and positively correlated with student educational expectations.

Is there a difference between parental support and parental expectations? Do parents with high *expectations* also tend to have children with high expectations? Or do high expectations cause children to become stressed under the pressure of trying to meet said high expectations? Schneider and Stevenson (1999) found that most parents expect their children to earn at least an undergraduate degree and become a success. "By 1992...76 percent of seniors reported their parents expected them to earn a college degree or more" (Schneider & Stevenson, 1999, p. 141). This is a far greater number than the 55% of high school students who reported having parents with the same educational expectations in 1955 (Schneider & Stevenson, 1999). The rising educational expectations by parents may affect students in different ways. High educational

expectations may motivate some to set high standards for themselves and may act as a driving force to achieve such standards. More research needs to be conducted to find out how parental encouragement and expectations in academics combine with other factors to influence a student's educational expectations and attainment.

Some parents of student-athletes, on the other hand, may focus solely on encouraging their students in athletics. Parents have been known to stretch rules to accommodate the athlete, indicating that they prioritize athletics over academics (Nicholi, 1987). Parents may allow the dishonest completion of assignments by children in an effort to save time on studying and devote more time for the development of sport skills. Not only does this type of behavior result in a sense of dependency (Werthner & Orlick, 1986), a lack of impulse control, and a lack of emotional development on the part of the athlete (Nicholi, 1987), it may also give the impression that the development of athletics is more important than the development of academics. The athlete may, in turn, concentrate his or her energy on the development of what is deemed as "important" by significant others (i.e., teachers and parents) and focus solely on developing the athlete role at the expense of the academic role. The intense focus on athletics at the expense of academics may lead to the development of a strong and exclusive athletic identity, and a lack of academic development.

Teachers. In addition to parents, teachers have also been known to break a rule or two in order to accommodate the student-athlete (Nicholi, 1987). Teachers may give an athlete a few extra needed points in a class to help the athlete remain academically eligible to participate in sport (Coakley, 2004). This, too, may reinforce the idea that

athletics is more important than academics, thereby encouraging students to spend more effort on developing their athletic side at the expense of academics.

However, some studies indicate student-athletes actually receive more encouragement by teachers in academic development than non-athletes. In a study of high school student athletes that controlled for SES (based on paternal occupation and education) and maternal educational encouragement, Schafer and Rehberg (1970) found that athletes more often reported receiving encouragement by teachers and counselors to attend college than non-athletes. In general, 70% of athletes reported receiving encouragement from teachers to attend a four-year college, while only 60% of nonathletes reported receiving the same level of encouragement. The difference in reported encouragement by teachers is especially prominent for students with lower selfaspirations. Forty percent of student-athletes with low aspirations reported receiving encouragement by teachers to attend a four-year college, while only 18% of the general student population with the same low aspirations reported receiving the same encouragement from teachers. As self-aspirations grew for both athletes and nonathletes, the distinction between who received more teacher encouragement became nonsignificant. However, this study did not control for many other factors, such as the athletic and academic expectations of many other significant others (i.e., father, mother, coach, and peers). Additionally, many high school athletes have teachers who also play the role of the athletic coach. Some coaches who are also teachers may have more contact with student-athletes. This may facilitate the development of a stronger relationship between the teacher/coach and the student-athlete, allowing the

teacher/coach to express more interest and encouragement in the student-athletes' personal life.

Coaches. Encouragement from a coach in athletics may also impact the academic aspirations and identity development of high school student-athletes. This relationship has yet to be empirically explored in sport among high school student-athletes. Given the findings that a coach's encouragement of future career pursuits is related to his or her student-athlete's career expectations (Lee, 1983), it would seem to follow that a coach can have an impact on his or her student-athlete's expectations and perception of him or herself. Coaches have been said to affect the norms and beliefs of athletes (Phillips & Schafer, 1971). This important ability to influence youth can be used in both positive and damaging ways when it comes to academic expectations and achievement. A coach who focuses only on athletic development may encourage athletes to do the same. On the other hand, a coach who focuses on building character and well-rounded student-athletes by setting educational and career expectations for athletes and reinforcing attention to homework may influence his or her student-athletes to develop a more balanced and less exclusive identity. At the college level, coaches often stress the importance of receiving a degree to their student-athletes (Alder & Adler, 1985). This importance may be stressed even more today as the NCAA has reformulated its rules and regulations to encourage more degree completions by athletes, threatening schools' athletic scholarships and eligibility if athletes do not graduate in a timely manner. Even with this encouragement, college athletes report receiving much more encouragement for athletics, as compared to academics (Adler & Adler, 1985). More research needs to be conducted to discover how encouragement from coaches is perceived by student-athletes at the high

school level and if this encouragement has any correlation with the student-athletes' academic aspirations and expectations.

Peers. Much controversy has occurred over the influence that peers possess over a high school student's educational expectations and attainment. While most acknowledge that friends are important in the development of an adolescent's sense of self, academic expectations, and academic attainment (Hoxby, 2000; Robertson & Symons, 2003), some suggest that peers minimally influence a student's educational aspirations (Schneider & Stevenson, 1999). In their longitudinal research of high school students, Schneider and Stevenson (1999) found that "students talk very little with their friends about the future; the topic accounted for less than one percent of time spent with friends" (p. 196). They found that students did talk with their friends about college, but the conversations were more of a competitive nature rather than encouraging. However, the application of this finding to athletes needs to be explored in further detail.

In general, athletic peer groups are much more stable in high school than other social peer groups (Schneider & Stevenson, 1999). The norms shared by athletes have also been found to be much more intense and more regulative of behavior than the norms shared by other social groups in high school (Phillips & Schafer, 1971). The pressure to conform to peer standards seems to be greater for athletes than for non-athletes. If this is true, it is important to find whether or not athletes are setting positive or negative norms and standards for peers. Previous research is sparse and inconclusive regarding this relationship. Schafer and Rehberg (1970) suggested that athletes have close friends who have more positive educational attitudes and aspirations than non-athletes. Additionally, athletics has also been suggested to provide a means for athletes from blue-collar families

to mingle with college-bound athletes from white-collar families, increasing the exposure of students from blue-collar families to the idea of pursuing college through athletic participation (Phillips & Schafer, 1971; Coleman, 1961). The mere exposure to the idea of pursuing college could possibly act as encouragement for athletes from blue-collar families to aspire to, and achieve, the completion of higher forms of education. However, others have suggested the peer subculture can be anti-intellectual and anti-academic in the athletic sphere (Adler & Adler, 1985; Coleman, 1960; Sack 1977).

Some evidence also suggests peers may play an active role in the identity development and aspirations of high school students (Coleman, 1961; Eckert, 1989). Peers may influence participation in, and commitment to, specific activities. Studentathletes may feel pressure from peers to become an ideal athlete. Again, the importance placed on the athletic role may drive some student-athletes to focus solely on athletic development and neglect the development of other roles, such as academics. This may, again, lead to the development of a strong and exclusive athletic identity. On the other hand, if significant others encourage the development of the academic role in addition to the athletic role, student-athletes may build more well-rounded and less athletically exclusive identities.

Time Allocation to Athletics and Academics

The development of both the athletic role and the academic role may be tricky due the fact there are only 24 hours in a day, and the student-athlete may be forced to choose between spending time in the development of one role over the other. Goode (1960) and Adler and Adler (1985) have suggested that time spent in one role, such as athletics, may lessen the amount of time and energy that can be invested in the cultivation and

development of other roles, such as academics. Coleman (1961) illustrated this point in his in-depth sociological study of high school students, in which he discovered that students who invest time in sport are less likely to pursue academics. However, studies have yet to find whether or not time spent playing sport impacts academic expectations and achievement in a longitudinal matter. Do high school student-athletes who report spending long hours practicing sport reach lower levels of educational attainment than the students who have more time to devote to academics?

Type of Sport

In addition to the amount of time high-school athletes devote to sport participation, the actual type of sport that athletes participate in may be linked to educational expectations and longitudinal educational attainment. Among college athletes, those participating in team sports and, in particular, the revenue-producing sports of football and basketball have been found to have the poorest academic attainment levels (Purdy, Eitzen, & Hufnagel, 1982). In an in-depth look at college graduation rates, the NCAA's 2007 report of graduation rates found the graduation rate of men's basketball players to be significantly below a matched sample of the general student body graduation rate at 46% and 59%, respectively. Student-athletes participating in football also produced lower graduation rates than their matched sample counterparts in the general population, at 55% and 62%, respectively. Alternatively, women's basketball was reported to have a graduation rate identical to a matched sample of females in the general student body population, at 64%.

Why does the graduation rate discrepancy occur between sports at the college level? Some have suggested that because of the money involved with the big time

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college sports of football and men's basketball, the pressure to win is intense (Purdy, Eitzen, & Hufnagel, 1982). Athletes in these sports may feel more of a demand to perform well by the institution and fans who are "counting on them." Therefore, they may shift attentional focus from academics to athletics, and in turn, hurt their chances of earning a college degree. More research needs to be conducted in this area to see if the differences in graduation rates and educational attainment levels can be traced back to a younger setting. Do high school athletes who participate in the sports of basketball and football struggle to attain levels of education equal to their peers as college athletes do? If so, what can be done to prevent this from occurring in the future?

Control Variables

Gender. Gender may be a controlling factor in the educational aspirations and attainment of student-athletes. A few decades ago, males, in general, were found to have higher educational goals and higher actual educational attainment than females (Berman & Haug, 1975; Alexander & Eckland, 1974). Berman and Haug (1975) found that male urban college students from mixed social backgrounds held higher educational goals than female students. In this study, 66% of college males aspired to attain an advanced degree, while only 56% of females held this same aspiration.

When looking at high school students from earlier generations, Alexander and Eckland (1974) also found that females generally fell short of males in terms of academic attainment. The interesting part of this study was all of the variables it took into consideration. Alexander and Eckland (1974) studied 9,699 high school sophomores in terms of family background status (as measured by mother and father's education, father's occupational status, and acquisition index representatives of SES). Academic

aptitude, peer college plans, sophomore and senior class standing, sophomore and senior curriculum enrollment, adult influences (parent and teacher/counselor), academic selfconcept, educational expectations, educational attainment, and sex. After taking a look at factors that contribute to educational achievement in one of the most comprehensive manners to date, the researchers found gender to be the most significant feature of the full model. The researchers also noted, "in nearly every comparison between the sexes, female outcomes were somewhat more dependant on social class origins" (Alexander & Eckland, 1974).

While this research was very informative for its time, it has become somewhat outdated. New research needs to be conducted examining some of these key concepts and also including other factors that play a huge role in the lives of today's teens, such as athletics. In their study of college students, Purdy, Eitzen, and Hufnagel (1982) found that male student-athletes had lower academic achievement than males in the general student population. On the other hand, female athletes were found to have a slightly higher GPA than females in the general student body population. Some authors have suggested female college athletes may soon see trends similar to male college athletes in terms of academic achievement, as scandals, a greater pressure to win, and unethical practices are growing more and more prevalent in female sport (Eitzen & Sage, 1982).

Newer statistics provided by the NCAA (2007), however, have shown that differences still exist between male and female athletes in terms of educational attainment. In a comparison of federal graduation rates for students entering college in Fall of 2000 and given 6 years to graduate, female student-athletes held a higher graduation rate than their female counterparts in the general student population, at 71%

and 64%, respectively. Male student-athletes graduated at a lower rate than the general male student-body population, at rates of 55% and 59%, respectively. While the NCAA can truthfully report that college student-athletes (63%) graduate at rates nearly equal to (and slightly higher than) the general student-body population (62%), a deception exists when the statistics are broken down by gender and the outstanding success of female athletes offsets the lower performances of male student-athletes. Do these trends hold true with high school student-athletes? Will these findings remain the same once a variety of demographic, social, and outside influences have been taken into consideration as in the Alexander and Eckland study (1974)? These questions and many others have yet to be answered to determine the influence of high school athletic participation on academic expectations and achievement.

Race/Ethnicity. Among the general student population, research has yet again yielded many inconsistencies when examining the differences (or lack of differences) between races in regards to educational expectations and attainment. Some research has found few differences between races when it comes to educational aspirations. Berman and Haug (1975) found that the same proportion of black and white students (61%) aspired to attain high educational goals. Likewise, Carter, Little, and Barabasz (1972) found no racial differences for occupational-educational aspirations in a study of seventh and eighth grade students. However, the authors of this study were careful to note that the study was conducted with a small sample (n=88) and all parents had to apply to gain admittance for their child to the school in which the study was conducted, suggesting the possibility that education was a high family priority for all families and students in the sample.

Other studies have arrived at conclusions indicating a difference between races in terms of educational aspirations and attainment. Black students have been found to hold higher and more unrealistic educational aspirations than whites (Gist & Bennett, 1963; Dreger & Miller, 1968). Qian and Blair (1999) found that other factors, such as parental education and parental income, have differing effects on the educational expectations of white and black senior high school athletes in a study using NELS data. Parental education and income were found to have a significant effect on the educational aspirations of the white students in the study, but no significant effect was found for the impact of these factors on the educational aspirations of black students. The authors suggested that the role of parental status playing a stronger role for white students than black students could be explained by the assertion that white students set their goals in a "status quo" manner while African American students have shown a history of setting high and unrealistic educational expectations.

Graduation rates have also been found to differ between races. After analyzing many datasets from the National Center for Educational Statistics (NCES), Jacobson, Olsen, Rice, Sweetland, and Ralph (2001) found that, overall, blacks graduated high school or received a GED at a rate that was 2-8% lower than that of white students. In a similar pattern, blacks were found to be 4-10% lower than whites in college attendance. For those participants who did attend college, completion rates were 13-19% lower for blacks than for whites. On the contrary, blacks with similar amounts of prior educational achievement to whites graduated from high school or received a GED equally or more often than whites. The same trend was found to be evident for post secondary educational attainment, college attendance, and college completion.

And how do other major factors prevalent in high school, such as participation in high school athletics which often claims to have a positive impact on graduation rates, affect the educational expectations and achievement of different races? While little research has been conducted with high school athletes on this matter, some studies of college student-athletes have begun to explore this field. The NCAA (2007) reported that both white and African American student-athletes hold higher graduation rates than the general student body population. The study also reports that male African American students participating in the revenue producing sports of football and basketball graduate at higher rates than samples of the general student body population matched for gender and ethnicity. However, white males participating in these same sports graduate at lower levels than matched samples of the general student body population. From these findings, participation in collegiate athletics appears to be a benefit for African American student-athletes and a disadvantage for white male athletes in revenue sports. Other longitudinal studies have found that black college student-athletes hold the poorest academic potential and performance (Purdy, Eitzen, & Hufnagel, 1982). How do these differing results generalize to high school student-athletes? Do college student-athletes receive more educational support than high school student-athletes, such as mandatory tutoring and study sessions, and thereby reach higher educational attainment than most high school student-athletes who do not go on to participate in sport at the collegiate level? More research needs to be conducted with high school athletes, which includes a variety of different races and ethnicities, not just black and white.

Available literature on race and high school student-athletes' educational aspirations and attainment is mostly speculative in nature. Coakley (2004) proposed the

idea that societal expectations may influence the development of a strong and exclusive athletic identity among black athletes, in particular. Coakley (2004) hypothesized that society in general holds the expectation that black individuals are better in athletics than white individuals. The dominance of black athletes in the highly publicized sports of men's basketball and football would seem to justify the argument that black individuals make better athletes. Coakley (2004), however, argues it is not so much that black individuals actually make better athletes than white individuals, but it is the expectation among society of black people excelling in athletics that explains the dominance of black athletes in sports such as football and basketball. This emphasis on a strong and exclusive athletic identity, as alluded to earlier, may have an impact on the educational aspirations and attainment of high school athletes.

Illiteracy has been found to be a greater problem for black and other minority student-athletes than for white student-athletes (Lapchick, 1987). This discrepancy could be caused by a self-fulfilling belief that society holds in which black individuals are seen as great athletes and mediocre students (Coakley, 2004). In order to meet society's expectations, young black student-athletes may push themselves to succeed in athletics and give little attention to academics. Black student-athletes may be more at risk of developing a strong and exclusive athletic identity than white student-athletes. One possible reason for this is that society takes note of the athletic development of the black student-athlete and labels black student-athletes as only athletes. According to Coakley (2004), the strength of this label can be found in the work of Godley (1999), which found that white student-athletes who are honor students are given praise for their academic status, while black student-athletes who are in honors classes are only referred to as
athletes by teachers and peers. This label of athlete instead of student-athletes may set low academic expectations for black student-athletes and prevent the black studentathlete from developing the academic identity. Thus, the black student-athlete may be more prone to the development of a strong and exclusive athletic identity than the white student-athlete.

Socioeconomic Status (SES). Among the general population, research has shown inconsistent findings as to whether or not certain sociocultural factors impact the educational aspirations and attainment of youth and young adults. In a study of 812 urban college students of mixed social backgrounds, Berman and Haug (1975) found that both lower and upper-middle classes held similar educational aspirations. However, this study was conducted with college students who had already made a decision to attend college. The results may be different with high school students who may or may not even aspire to go to college. The studies that do focus on teenagers have found the sociocultural factors of parental educational attainment and family income to be important predictors of both educational performance and educational expectations (Quian & Blair, 1999; Sewell & Hauser, 1975; Sewell & Shah, 1968). These findings have spanned several decades. Rouse and Barrow (2006) found that children in the highest SES quartile were much less likely to drop out of school, thereby reaching higher levels of educational attainment. Additionally, more advantaged families were able to spend more money on their children's education, and often did (Rouse & Barrow, 2006). This financial allotment for education makes it easier for advantaged children to attend college and receive a college degree. For the less advantaged families, it may be more

beneficial for a high school student to drop out of school and work full time than take out a college loan.

How does athletic participation affect the impact of SES on educational aspirations and attainment? Some evidence indicates that high school athletic participation may be predictive of higher educational expectations among adolescents who are least predisposed toward college by low SES (Schafer & Rehberg, 1970; Rehberg & Schafer, 1968). High school athletes from a lower SES class may view athletics as a way to climb the SES ladder. As Goldberg and Chandler (1995) noted, the media attention and the privileged SES of professional athletes may influence the educational and career plans of student-athletes. Student-athletes from low SES backgrounds who have the intention of playing sport at the professional level in order to raise their SES standing may be more likely than non-athletes from low SES backgrounds to claim the expectation of attending a 4 year college. Student-athletes with the dream of "going pro" may view college attendance as a necessary step in the process of becoming a professional athlete in order gain exposure to professional scouts. However, once admitted to a college or University, many student-athletes do not graduate, as previously noted. More research needs to be conducted to find whether or not the combination of athletic participation and SES is predictive of educational expectations and educational attainment among high school students.

Academic ability. There is an abundance of research evidence linking academic ability to educational expectations and attainment (e.g., Sewell, Haller, & Portes, 1969; Sewell & Shah, 1967; Wilson & Portes, 1975). However, in order to get a more accurate

assessment of the predictive strength of the psychosocial perception factors, ascribed variables, such as academic ability must be controlled in analyses.

Athletic ability. Not much research has been conducted on athletic ability and educational expectations/attainment. Most studies look at athletic participation rather than ability. However, as mentioned previously, Bend (1968) found that over 71% of the superior athletes in high school actually attended some college, while only 51% of nonathletes attended college. Just as with academic ability, the more trait-like variable, athletic ability, should be controlled in order to examine the psychosocial perception variables that may predict educational expectations and attainment.

Summary

A lower strength and exclusivity of athletic identity may be predictive of higher educational aspirations and attainment. Student-athletes who exclusively define themselves by their athletic role may not develop alternative roles (such as the academic role) that have been found to be beneficial for academic success and future life satisfaction.

Higher levels of educational aspirations and educational achievement may also be predicted by higher academic encouragement from significant others and lower athletic encouragement from significant others. Encouragement from significant others in both athletics and academics may foster well rounded individuals who have the ability and confidence to achieve great levels of education. A problem may develop, however, when significant others encourage these athletes in athletics only. Youth athletes may internalize the prioritization of athletics over academics by significant others and may neglect to aspire or attain the academic levels they are capable of achieving. High

perceived educational expectations from significant others may be predictive of high levels of educational attainment and expectancies as well. High educational expectations by significant others may increase the amount of time a student-athlete invests in academics, and thereby lower the strength and exclusivity of the student-athlete's athletic identity while increasing his or her educational expectations.

A lesser amount of time devoted to sport and a greater amount of time devoted to academics may also be predictive of greater educational aspirations and attainment. Because the number of hours in a day are limited, student-athletes may need to find a correct balance between athletic participation and academic study to achieve ambitious and attainable academic achievement levels.

Participants in revenue sports may hold lesser academic aspirations and may not reach the same levels of educational attainment as non-athletes and those athletes who do not participate in revenue sports. This may be due to the fact that many athletes participating in revenue sports envision themselves reaching the professional level in sport, as is so often glamorized by the media. Believing they can achieve fortune and fame in a professional sporting career, many athletes drop their focus on academics to better themselves in their selected sport. This choice often proves detrimental to far too many young hopefuls who fall short of reaching their athletic dreams with no advanced academic degrees to fall back on.

Additional variables may come into play when looking at the predictors of educational expectancies and attainment in relation to sport. Some such variables with proven relations to the outcome variables include gender, race/ethnicity, and SES. These

variables should be controlled for when studying the relationships between the predictor and outcome variables.

CHAPTER III

METHODS

Sample and Procedures

Participants were selected from the National Education Longitudinal Study: 1988-2000 (NELS-88), a large-scale survey of American high school students that was conducted under the direction of the National Center for Education Statistics. The NELS-88 is a nationally representative survey of American high school students. The focus of the survey was broad, and included the topics of extracurricular participation, perceived social support, role identities, and educational and occupational expectations. The NELS-88 used a complex sampling design that sampled approximately 25,000 students from over 1,000 high schools (Curtin, Ingels, Wu, & Heuer, 2002; Ingels, Scott, Taylor, Owings, & Quinn, 1998). Participants were selected by dividing the country into combinations of school type and geographical regions (or strata), clustering schools within each stratum according to minority classification and urbanization, and disproportionally sampling schools within each cluster to create a nationally representative sample (Curtin, Ingels, Wu, & Heuer, 2002).

The NELS-88 was administered to 8th grade students in 1988, and then subsets of the original sample were resurveyed again in 1990 when the participants were in 10th grade, in 1992 when the participants were in 12th grade, in 1994 (2 years after high school), and in 2000 (8 years after high school). The present study used data from the first follow-up survey (the F1 wave) conducted in 1990 using 10th grade students, the second follow-up survey (the F2 wave) conducted in 1992 using 12th grade students, and the fourth follow-up survey (the F4 wave) conducted in 2000. The reason these waves

were chosen for analysis was because the independent variables needed for the study could be found in the F1 wave and the dependent variables needed for the study could be found in the F2 and F4 waves. The selection criteria for inclusion in this study yielded a total of 12,144 participants made up of 6326 females and 5725 males (93 participants did not indicate male or female on the survey).

Measures of Outcome Variables

The following NELS-88 indicators were used to measure the outcome variables of the participant's educational expectations and educational attainment. NELS-88 indicator variables were selected after a thorough examination of the NELS-88 questionnaires and variable lists. A list of all variables considered for this study can be found in Appendix A.

Student educational expectations. The outcome variable of the participant's educational expectations was measured using NELS-88 variable F2S43 (how far in school the respondent thinks s/he will get). Response categories were 1 = less than high school, 2 = high school graduation only, 3 = less than 2 years of trade school, 4 = 2 or more years of trade school, 5 = trade school degree, 6 = less than 2 years of college, 7 = 2 or more years of college, 8 = finish college, 9 = master's degree, and 10 = PhD or M.D.

Student educational attainment. The outcome variable of the participant's educational attainment was measured using the NELS-88 variable F4HHDG (highest post secondary degree attained as of 2000). Response categories were 1 = some post secondary education, no degree attained, 2 = certificate/license, 3 = Associate's degree, 4 = Bachelor's degree, 5 = Master's degree, 6 = Ph.D. or a professional degree.

Measures of Predictor Variables

Strong and exclusive athletic identity. The outcome variable of strength and exclusiveness of athletic identity was measured using a combination of two NELS-88 variables: F1S67B (students think of respondent as being athletic) and F1S67D (students think respondent is a good student). For each of these variables, the participant responded by indicating the degree to which he or she agrees with the statement on a 3point scale (1 = very; 2 = somewhat; 3 = not at all). There were no questions that asked the respondents directly whether they thought of themselves as being athletic or being a good student.

Snyder & Sprietzer (1992) have used similar variables from the High School and Beyond Study (sponsored by the U.S. department of education; Zahs, Pedlow, Morrissey, Marnell, & Nichols, 1995) as measures of athletic and academic identity. Similar to this previous research, the F1S67B variable (being seen as athletic) has been linked to athletic identity, and the F1S67D variable (being seen as a good student) has been linked to academic identity. Exclusiveness of athletic identity was noted in students who indicated the presence of a strong athletic identity in the absence of an academic identity. Ratings of strength and exclusiveness of athletic identity were organized into four categories. Each category was set up as a dummy variable, in which a response of 1 indicated that the participant had that particular combination of strength and exclusivity of athletic identity (denoted in the categories below), and a response of 0 indicated that the participant did not have that combination of strength and exclusivity of athletic identity. The four categories were as follows:

- Strong and Exclusive Athletic Identity: Denoted by participant selecting a 1 (very) on F1S67B and selecting a 3 (not at all) on F1S67D
- Not Strong but Exclusive Athletic Identity: Denoted by participant selecting a 2 (somewhat) on F1S67B and selecting a 3 (not at all) on F1S67D
- Strong but Not Exclusive Athletic Identity: Denoted by participant selecting a 1 (very) on F1S67B and selecting a 1 (very) or a 2 (somewhat) on F1S67D
- 4. Not Strong and Not Exclusive Athletic Identity: Denoted by a participant selecting a 2 (somewhat) on F1S67B and selecting a 1 (very) or 2 (somewhat) on F1S67D

Time invested in academics. The amount of time a participant invests in academics was measured by:

- F1S36A1: Time spent on homework in school. Response categories
 were 0 = none, 1 = 1 hour or less, 2 = 2-3 hours, 3 = 4-6 hours, 4 = 7-9
 hours, 5 = 10-12 hours, 6 = 13-15 hours, and 7 = over 15 hours.
- F1S36A2: Time spent on homework out of school. Response categories were 0 = none, 1 = 1 hour or less, 2 = 2-3 hours, 3 = 4-6 hours, 4 = 7-9 hours, 5 = 10-12 hours, 6 = 13-15 hours, and 7 = over 15 hours.

Variable F1S36A1 and variable F1S36A2 were combined into one variable labeled "Time invested in academics" by adding the responses of the two above variables together and then dividing by two to yield one variable that ranges from 0-7 in response score. *Time invested in athletics.* The amount of time a participant invests in athletics was measured by F1S44F (how often does respondent play ball or other sports). Response categories to this variable were 1 = rarely or never, 2 = less than once a week, 3 = once or twice a week, and 4 = every day or almost every day.

Type of sport. One goal of this study was to see whether or not revenue sports (such as football and basketball) have predictive effects on the outcome variables that are different/similar to participation in non-revenue sports. Thus, each sport measured by the NELS-88 F1 wave was utilized in this study as an individual predictor variable. Items used to indicate sport participation were F1S41AA (played baseball/softball at school), F1S41AB (played basketball at school), F1S41AC (played football at school), F1S41AD (played soccer at school), F1S41AE (participated on swim team at school), F1S41AF (played other team sport at school), and F1S41AG (played an individual sport at school). The original coding of these sport variables was: 1 = school does not have, 2 = did not participate, 3 = intramural sports, 4 = junior varsity team, 5 = varsity team and 6 =captain/co-captain. All variables were recoded into dummy variables to reflect participation in the school sport. A recoded "1" was used to indicate that the player had participated in the sport on the junior varsity or varsity team, or had been a captain. A recoded "0" was given to the responses "did not participate" and "school does not have" and "intramural sports."

Perceived encouragement in athletics. Perceived encouragement in athletics by parents and peers was measured by a participant's responses to:

 F1S44N: How often respondent takes sports lessons (examples of karate and tennis were given). Response categories were 1 = rarely or never, 2 = less

than once a week, 3 = once or twice a week, and 4 = every day or almost every day. This variable was included as a measure of parental support for athletics because parents often provide the financial support and transportation for outside sport lessons.

 F1S70C: Among friends, how important is it to play sports. Response categories were 1 = not important, 2 = somewhat important, and 3 = very important.

Perceived encouragement in academics. Perceived encouragement in academics by parents and peers were measured by a participant's responses to:

- F1S100A: How often parents check on respondent's homework.
 Response categories were 1 = often, 2 = sometimes, 3 = rarely, 4 = never.
- F1S100B: How often parents help respondent with homework.
 Response categories were 1 = often, 2 = sometimes, 3 = rarely, 4 = never.
- 3. F1S70B: Among friends, how important is it to study. Response categories were 1 = not important, 2 = somewhat important, and 3 = very important.
- F1S70D: Among friends, how important is it to get good grades.
 Response categories were 1 = not important, 2 = somewhat important, and 3 = very important.

NELS-88 variables F1S100A and F1S100B were reverse coded so that higher scores were reflective of greater parental support. Additionally, these two variables were

combined into one variable named "Academic encouragement from parents" by adding the two responses together and then dividing by two to yield a range of 1-4. Likewise, variables F1S70B and F1S70D were combined into one variable named "Academic encouragement from peers" by adding the two responses to these variables together and dividing by two to yield a response score ranging from 1-3.

Perceived expectations of significant others. Perceived educational expectations of significant others took into account what the respondent believed his or her mother's (F1S47B), father's (F1S47A), friends' (F1S47C), teacher's (F1S47F), and coach's (F1S47G) expectations were for the respondent after high school. For each significant other F1S47* variable listed, response categories were 1 = does not apply, 2 = go to college, 3 = get a full time job, 4 = enter a trade school, 5 = enter military, 6 = get married, 7 = do what R wants, 8 = they don't care, 9 = I don't know. In order to use these variables in an ordinal manner, only four of the nine responses were utilized in the study. Selected responses were be recoded so that 1 = they don't care, 2 = get a full time job, 3 = enter a trade school, and 4 = go to college. All other responses were recoded as missing data.

Control Variables

Socioeconomic status. Socioeconomic status (F1SES) was measured using a composite of SES that took parental educational level, parental occupational level, and family income into account. Parental occupational data were measured using the Duncan socioeconomic index (SEI) scale (Duncan, 1961), which has been widely used in sociological literature as a measure of SES (Warren, Sheridan, & Hauser, 1998). The F1SES variable was constructed using parent questionnaire data when it was available. If

information was given for any of the parental components used to construct F1SES, the data was included in determining the F1SES composite score.

Gender. Gender was controlled for using item F1SEX. This variable was coded "1" to indicate female and "0" to indicate male.

Race/Ethnicity. Race/ethnicity was controlled for using item F1RACE (participant's racial identification). Response categories were 1 = Asian/Pacific Islander, 2 = Hispanic, 3 = Black, not Hispanic, 4 = White, not Hispanic, 5 = American Indian/Alaskan. A dummy variable for each of the four race/ethnicity minorities was created.

Athletic ability. Participation on a varsity sport at the 10th grade level was seen as an indication of advanced athletic ability for the purpose of this study. If the participant indicated that he or she had participated on a varsity team on items F1S41AA-F1S41AG (listed above in the *type of sport* section), he or she was seen as having advanced athletic ability and was given a code of "1" on the control variable of athletic ability. All other participants (non-athletes and JV athletes) were given a code of "0."

Academic ability. Item F12XCOMP (standardized test composite score on reading and math) was utilized as a measure of academic ability.

School size. Item F1SCENRL (entire school enrollment) was utilized as a measure controlling for the size of the school the participant attended in the 10th grade. This variable was reported by the school, not the student. School size was divided into nine categories coded in the following manner: 1 = 1-399 students, 2 = 400-599 students, 3 = 600-799 students, 4 = 800-999 students, 5 = 1000-1,199 students, 6 = 1,200-1,599 students, 7 = 1,600-1,999 students, 8 = 2,000-2,499 students, 9 = 2,500 students or more.

School size was thought to be an important control in the study to account for smaller schools, which tend provide students with greater opportunity for athletic participation, and large schools, which tend to have fewer opportunities for athletic participation as more students compete for limited spots on a team.

Analysis

Multiple regression was used to determine the strength of the relationships between the predictor variables and the outcome variables. Due to the fact that no theoretical basis exists for prioritizing any one of the 22 predictor variables over the others, all predictor variables were entered into the regression model simultaneously. Simultaneous regression is preferred over stepwise regression in cases with a large number of variables, in that stepwise regression is likely to capitalize on chance (rather than theory) and yield invalid measures of statistical significance (Cohen & Cohen, 1983). Because of the complex sampling structure of the NELS-88 data involving stratification, clustering, and unequal selection of participants to form a nationally representative sample, measures were taken to account for the non-random sampling, clustering, and weighting of the data. AM statistical software (am.air.org) designed by the American Institute for Research was used to analyze the data because it has the ability to account for the complex sampling design of the NELS-88 data when computing multiple regression analysis. Clustering sometimes presents a problem for popular statistical packages, such as SAS and SPSS, because clustering can often increase the variability of survey estimates due to the tendency of observations within a cluster to be similar and present less new information than independently selected observations (Curtin, Ingels, Wu, & Heuer, 2002). Statistical packages such as SPSS and SAS do not

Г., 1 Ца. 7 account for the complex sample design of the NELS-88 dataset, which may impact significance testing by yielding "artificially small standard errors and upwardly biased significance levels" (Curtin, Ingels, Wu, & Heuer, 2002, p. 97). The variables primary sampling unit (PSU) and sampling stratum (STRATUM) were incorporated into every analysis to account for the sampling and clustering of the data at the time of collection using AM.

Pre-calculated weights were included with the NELS-88 dataset to account for unequal probabilities of a student being selected to participate in the NELS-88 study (some populations were oversampled to ensure adequate sample sizes analysis) and to compensate for the effects of non-response (Curtin, Ingels, Wu, & Heuer, 2002). If a student had a high chance of being selected for the study because he or she was a part of a minority group that was oversampled, he or she would be given a lower weight (following a mathematical process) than a student who has a lower chance of being selected for the study. For analyses in which student educational expectations appeared as the dependent variable, F2F1PNWT was used as the weighting variable. F2F1PNWT accounts for weighting longitudinally between the first follow-up data set (F1) and the second follow-up data set (F2). Similarly, F4F1PNWT was used as the weighting variable in all analyses in which student educational attainment was the dependent variable to account for the longitudinal nature of using variables from the first follow-up (F1) and the fourth follow-up (F4).

The expectation maximization (EM) algorithm, a method of maximum likelihood, was used to account for missing data with continuous and ordinal variables using the missing values analysis module of SPSS. With this method, expected values are imputed

for missing values based on the other parameter values (Allison, 2003; Schafer & Graham, 2002). Methods of maximum likelihood appear to be one of the best ways to account for missing data, especially when data are not missing completely at random (MCAR). In this study, Little's MCAR test revealed that the missing values were not MCAR (χ -squared = 24,747.499, p < .05). Missing values were imputed for continuous and ordinal variables using EM immediately after missing values were identified for the NELS variables in SPSS. Once missing values were imputed, the non-integer values were rounded to the nearest whole number so that the new variables used for this study could be created using the procedures described above. Cases were then selected if the PSU and STRATUM variables were listed as not missing to give a more accurate descriptive analysis due to the fact that only cases containing these variables would be available for use in the regression analysis. Listwise deletion was employed for cases missing categorical values when running regression analyses.

CHAPTER IV

RESULTS

The results are presented in four major sections, beginning with the preliminary analyses, followed by the testing of Hypotheses 1 and 2. Due to the nature of the listwise deletion of missing data among the categorical variables used in this study and the use of weights, descriptive statistics for each variable differ slightly between hypothesis tests. Therefore, descriptive tables for each of the variables are included at the beginning of each hypothesis results section.

Preliminary Analyses

A pilot study was first conducted to ensure that the athletic identity variables created for the present study were valid. In a test of concurrent validity, the correlation between the NELS variable used as an indicator of Athletic Identity (students think of respondent as being athletic) and the Athletic Identity Measurement Scale (AIMS) score was examined among 172 college student-athletes. The NELS measure for athletic identity was correlated with the AIMS score (r=.26). This correlation was significant at the .01 level, though the correlation was low. The NELS athletic identity variable may be tapping additional perceptions, such as perceived physically-athletic appearance. The NELS variable of Academic Identity (students think respondent is a good student) was also found to be significantly and positively correlated with its construct measurement of academic identity at the .01 level among the 172 person sample of college student-athletes (r=.63). Both NELS' variables were retained in the construction of the four athletic identity variables for the present study.

Descriptives of all variables and scatterplots of the continuous variables were studied to ensure that there were no outliers and all missing data were properly handled. All continuous variables were checked for skewness and kurtosis to make sure that the statistical assumption for normality could be met in regard to multiple regression. A minimal amount of skewness and kurtosis was found on all of the continuous variables, save time devoted to academics, which was moderately skewed. Perceived encouragement in athletics by parents and the perceived educational expectations of the father, mother, peer, teacher, and coach, all had significant skewness and kurtosis. The perceived educational expectations of the father, mother, peers, teacher, and coach, as well as the perceived encouragement in athletics by parents were all transformed using the log of the original variable in an attempt to correct for nonnormalicy; however, all variables were still significantly skewed. A decision was made to keep the original nontransformed dataset because multiple regression using the F statistic is known to be robust and can account for non-normality among larger sample sizes. The p value of 0.05 or lower was used to indicate significance for the purpose of this study.

Correlations were run between predictor variables to check for multicollinearity. The majority of the correlations were small. The absolute values of all correlations were under .80, which suggests that multicollinearity was less likely to have occurred. However, two correlations were fairly high. The Pearson correlation coefficient between the perceived educational expectations of the respondent's mother and father reached .76, perhaps indicating that these two variables could better be explained by one overlying construct called perceived parental educational expectations. The Pearson correlation coefficient between the respondent's teacher and coach was also of note at .70. The

somewhat high correlation between these two variables may be better explained by one factor, such as perceived educational expectations from significant others at school. For the purpose of this study, all original variables were retained for examination in the multiple regression equation.

Educational Expectations

Descriptive statistics for the independent, dependent, and control variables can be found in Appendix B, Table 1. Of note was the relatively high mean value of the dependent variable "how far in school student thinks s/he will get" (M= 7.43, SD= 1.5), indicating that the majority of the participants believed that they would at least attend 2 or more years of college. Also of interest is the very low number of students who indicated the possession of a strong and exclusive athletic identity (M= 0.01, SD= 0.10) or the possession of a not strong but exclusive athletic identity (M= 0.03, SD= 0.17). The small number of participants possessing these characteristics may affect the significance of the role of the aforementioned variables in the regression analysis. Ceiling effects may be present in the study among all of the significant other educational expectation variables, including father (M= 3.75, SD= 0.61), mother (M= 3.81, SD= 0.53), peer (M= 3.37, SD= 0.89), teacher (M= 3.79, SD= 0.57), and coach (M= 3.64, SD= 0.70) educational expectations.

Correlations between the control variables and the dependent variable of Student Educational Expectations were checked in SPSS to find whether or not keeping the control variables in the regression equation was justified. The results of these correlations can be found in Table 2.

Control Variable	Pearson Correlation
Academic Ability	0.48*
SES	0.42*
Athletic Ability	0.15*
Asian/Pacific Islander	0.12*
Female	0.06*
Hispanic	-0.05*
School Size	0.05*
American Indian/Alaskan	-0.04*
Black	0.00

 Table 2. Correlations of Control Variables and Educational Expectations

*Statistically significant at the 0.01 level

All control variables were found to be significant at the 0.01 level except for the Black control variable. While this variable was found to have non-significant correlations with Student Educational Expectations, it was still retained for the study based on theoretical knowledge of prior research.

To test Hypothesis 1, which stated:

Significant predictors of higher 12th grade educational expectations are lower strength and exclusivity of athletic identity, less time devoted to sport, more time devoted to academics, participation in non-revenue sports (baseball/softball, soccer, swim team, etc.), greater academic encouragement from parents and peers, lower athletic encouragement from parents and peers, and higher educational expectations from significant others (father, mother, peer, teacher, and coach),

a multiple regression analysis of educational expectations including the nine control variables (SES, gender, the four ethnicity categories, athletic ability, academic ability, and school size) and the 22 predictor variables was conducted. The regression model, in its entirety, was found to be statistically significant, F(31,942) = 123.45, p < .01, $R^2 = 0.39$, indicating that 39% of the variance for student academic expectations is accounted for by the model illustrated in Table 3.

Parameter	Estimate	Standardized	SE	t-statistic	<i>P</i> < -value
Name		Beta			
Constant	-0.66		0.26	-2.49	0.013*
Control					
Variables					
SES	0.52	0.20	0.04	13.32	0.001*
Female	0.18	0.05	0.05	3.28	0.001*
Asian/Pacific	0.22	0.02	0.11	2.12	0.035*
Islander					
Hispanic	0.39	0.06	0.07	5.45	0.001*
Black	0.66	0.11	0.09	7.48	0.001*
American	0.26	0.01	0.16	1.67	0.096
Indian/Alaskan					
Athletic	0.09	0.02	0.06	1.40	0.163
Ability					
Academic	0.06	0.29	0.00	18.42	0.001*
Ability					
School Size	0.05	0.06	0.01	4.43	0.001*
Predictor					
Variables					
Strong &	0.41	0.02	0.33	1.25	0.211
Exclusive AI					
Not Strong but	-0.34	-0.03	0.11	-3.00	0.003*
Exclusive AI					
Strong but Not	0.03	0.01	0.09	0.31	0.757
Exclusive AI					
Not Strong &	0.02	0.01	0.06	0.27	0.786
Not Exclusive					
AI					
Time Invested	0.01	0.01	0.02	0.63	0.527
in Academics					

 Table 3. Educational Expectations Full Model

ruore o (come u)					
Time Invested in Athletics	0.01	0.01	0.03	0.33	0.739
Baseball or Softball	0.08	0.01	0.09	0.81	0.419
Basketball	0.08	0.01	0.08	1.05	0.292
Football	-0.13	-0.02	0.08	-1.50	0.134
Soccer	0.12	0.01	0.08	1.50	0.134
Swim Team	0.06	0.00	0.10	0.63	0.531
Other Team Sport	0.03	0.00	0.08	0.36	0.718
Individual Sport	0.18	0.03	0.06	2.83	0.005*
Athletic Encouragement from Parents	0.06	0.02	0.03	2.24	0.025*
Athletic Encouragement from Peers	0.10	0.04	0.04	2.47	0.014*
Academic Encouragement from Parents	-0.01	0.00	0.03	-0.20	0.846
Academic Encouragement from Peers	0.19	0.05	0.04	4.41	0.001*
Father Educational Expectations	0.45	0.14	0.09	5.26	0.001*
Mother Educational Expectations	0.46	0.12	0.12	3.89	0.001*
Peer Educational Expectations	0.35	0.16	0.04	9.87	0.001*
Teacher Educational Expectations	-0.09	-0.03	0.07	-1.38	0.167
Coach Educational Expectations	-0.10	-0.04	0.05	-1.96	0.050*

Table 3 (cont'd)

*Statistically significant at the 0.05 level **Mean Square Error = 2.40

All control variables were significantly and positively associated with student

educational expectations except for having American Indian or Alaskan ethnicity or

having higher athletic ability. However, these two control variables still approached significance in a positive direction.

Interestingly, the presence of a strong athletic identity was not found to be significantly associated with student educational expectations. Of the identity variables, only having a not strong but exclusive athletic identity was found to have a significant association with the outcome variable. In addition to having a not strong but exclusive athletic identity, eight other predictor variables were found to have a significant association with student educational expectations. These eight variables were participation on an individual sport, perceived encouragement in athletics by parents, perceived encouragement in athletics by peers, perceived encouragement in academics by peers, father educational expectations, mother educational expectations, peer educational expectations, and coach educational expectations. Six of the nine significant variables (the possession of a not strong but exclusive athletic identity, playing an individual sport, perceived encouragement in academics by peers, and mother, father, and peer educational expectations) were found to be significant in the direction predicted by Hypothesis 1. Perceived encouragement in athletics by parents and peers, and coach educational expectations were found to be significantly predictive of educational expectations in a direction opposite of that predicted by Hypothesis 1.

The model was reduced to include the control variables and the predictors that were significant in an effort to achieve a more parsimonious fit. The revised regression model was found to be statistically significant, F(18,956) = 210.18, p < .01, $R^2 = 0.39$, indicating that 38.9% of the variance for student educational expectations is accounted for by the model illustrated in Table 4.

Parameter	Estimate	Standardized	SE	t-statistic	P <-value
Name		Beta			
Constant	-0.74		0.25	-2.95	0.003*
Control					
Variables					
SES	0.53	0.20	0.04	13.84	0.001*
Female	0.19	0.05	0.05	3.89	0.001*
Asian/Pacific	0.22	0.02	0.10	2.09	0.037*
Islander					
Hispanic	0.38	0.06	0.07	5.32	0.001*
Black	0.65	0.10	0.09	7.47	0.001*
American	0.27	0.01	0.16	1.64	0.101
Indian/Alaskan					
Athletic Ability	0.14	0.03	0.05	2.62	0.009*
Academic	0.06	0.29	0.00	18.18	0.001*
Ability					
School Size	0.04	0.05	0.01	4.44	0.001*
Predictor					
Variables				- 4 - 1 - 1	
Not Strong but	-0.35	-0.03	0.11	-3.32	0.001*
Exclusive AI					
Individual	0.16	0.03	0.06	2.75	0.006*
Sport					-
Athletic	0.07	0.03	0.03	2.53	0.012*
Encouragement					
from Parents					
Athletic	0.13	0.05	0.04	3.45	0.001*
Encouragement					
from Peers					
Academic	0.20	0.05	0.04	4.66	0.001*
Encouragement					
From Peers					
Father	0.43	0.13	0.08	5.25	0.001*
Educational					
Expectations					
Mother	0.45	0.12	0.11	3.97	0.001*
Educational					
Expectations					
Peer	0.35	0.16	0.04	10.02	0.001*
Educational					
Expectations					
Coach	-0.14	-0.05	0.04	-3.36	0.001*
Educational					
Expectations					

Table 4. Educational Expectations

*Statistically significant at the 0.05 level; **Mean Square Error = 2.392

The results in Table 4 suggest the possession of a not strong but exclusive athletic identity and higher educational expectations from a coach were related to lower student educational expectations, while participation on an individual sport, higher athletic encouragement from parents, higher athletic and higher academic encouragement from peers, higher educational expectations from the father, higher educational expectations from the mother, and higher educational expectations from peers are all related to higher student educational expectations. All of the predictor variables are correlated in hypothesized directions except for athletic encouragement from parents and peers, which were slightly positively correlated with student educational expectational expectational expectations.

Educational Attainment

Descriptive statistics for the dependent, independent, and control variables are listed in Appendix B, Table 5. The average level of education attained by the students as of 2000 (M= 2.38, SD= 1.34) was equivalent to the acquisition of a certificate or license, but not an associate's degree. Like the descriptive statistics for the educational expectation analysis, a very low number of students indicated the possession of a strong and exclusive athletic identity (M= 0.01, SD= 0.10) or the possession of a not strong but exclusive athletic identity (M= 0.03, SD= 0.17). Once again, the small number of participants possessing these characteristics may affect the significance of the role of the aforementioned variables in the regression analysis. Ceiling effects may also be present in the study among all of the significant other educational expectation variables, including father (M= 3.75, SD= 0.61), mother (M= 3.80, SD= 0.54), peer (M= 3.36,

SD= 0.89), teacher (M= 3.79, SD= 0.56), and coach (M= 3.63, SD= 0.71) educational expectations.

Correlations between the control variables and the dependent variable of Educational Attainment were checked in SPSS to find whether or not keeping the control variables in the regression equation was justified. The results of these correlations can be found in Table 6.

Control Variable	Pearson Correlation
Academic Ability	0.49*
SES	0.45*
Athletic Ability	0.17*
Hispanic	-0.14*
Asian/Pacific Islander	0.11*
School Size	-0.08*
Black	-0.08*
Female	0.05*
American Indian/Alaskan	-0.05*

Table 6. Correlations of Control Variables and Educational Attainment

All control variables were found to be significant at the 0.01 level and were retained for use in the multiple regression model.

A multiple regression analysis of educational attainment including the nine control variables (SES, gender, four ethnicities, athletic ability, academic ability, and school size) and the 22 predictor variables was conducted to test Hypothesis 2, which stated: Significant predictors of higher educational attainment are lower strength and exclusivity of athletic identity, less time devoted to sport, more time devoted to academics, participation in non-revenue sports (baseball/softball, soccer, swim team, etc.), greater academic encouragement from parents and peers, lower athletic encouragement from parents and peers, and higher educational expectations from significant others (father, mother, peer, teacher, and coach).

The regression model, in its entirety, was found to be statistically significant, F(31,941) = 97.3516, p < .01, $R^2 = 0.305$, indicating that 30.5% of the variance for student educational attainment is accounted for by the model illustrated in Table 7.

Parameter	Estimate	Standardized	SE	t-statistic	<i>P</i> <-value
Name		Beta			
Constant	-1.05		0.19	-5.43	0.001*
Control					
Variables					
SES	0.36	0.21	0.03	11.85	0.001*
Female	0.23	0.09	0.05	5.17	0.001*
Asian/Pacific	0.10	0.01	0.12	0.85	0.395
Islander					
Hispanic	-0.06	-0.01	0.06	-0.99	0.322
Black	0.04	0.01	0.07	0.60	0.548
American	0.18	0.01	0.14	1.30	0.193
Indian/Alaskan					
Athletic	0.14	0.04	0.06	2.23	0.026*
Ability					
Academic	0.04	0.29	0.00	15.95	0.001*
Ability					
School Size	-0.02	-0.04	0.01	-2.47	0.014*
Predictor					
Variables					
Strong &	-0.03	0.00	0.11	-0.22	0.827
Exclusive AI					

Table 7. Educational Attainment Full Model

Table 7 (cont'd).

Not Strong but	-0.30	-0.04	0.09	-3.41	0.001*
Exclusive AI	_				
Strong but Not	-0.05	-0.01	0.08	-0.68	0.495
Exclusive AI					
Not Strong &	0.00	0.00	0.05	-0.04	0.968
Not Exclusive					
AI					
Time Invested	0.03	0.01	0.02	1.97	0.050*
in Academics					
Time Invested	0.01	0.01	0.02	0.24	0.813
in Athletics					
Baseball or	-0.08	-0.02	0.09	-0.89	0.375
Softball					
Basketball	0.10	0.02	0.07	1.45	0.147
Football	-0.01	0.00	0.07	-0.12	0.905
Soccer	0.03	0.00	0.10	0.27	0.785
Swim Team	-0.14	-0.02	0.11	-1.26	0.207
Other Team	0.03	0.01	0.08	0.38	0.705
Sport					
Individual	0.07	0.02	0.06	1.23	0.220
Sport					
Athletic	0.02	0.01	0.03	0.72	0.469
Encouragement					
from Parents					
Athletic	0.07	0.04	0.03	2.22	0.027*
Encouragement					
from Peers					
Academic	0.00	0.00	0.02	0.11	0.913
Encouragement					
from Parents					
Academic	0.10	0.04	0.04	2.67	0.008*
Encouragement					
from Peers					
Father	0.08	0.04	0.03	2.40	0.017*
Educational					
Expectations					
Mother	0.07	0.03	0.04	1.97	0.049*
Educational					
Expectations					
Peer	0.23	0.15	0.03	8.09	0.001*
Educational					
Expectations	L				
Teacher	0.01	0.00	0.05	0.21	0.833
Educational					
Expectations					

Table 7 (cont'd).

Coach	-0.17	-0.09	0.05	-3.83	0.001*
Educational					
Expectations					
	1.00				

*Statistically significant at the 0.05 level

**Mean Square Error = 1.254

In the full regression model, the race and ethnicity variables did not show a significant correlation with education attainment while all other control variables did. Eight of the twenty-two predictor variables were significantly predictive of student educational attainment. The eight predictor variables found to be significant were the possession of a not strong but exclusive athletic identity, time invested in academics, perceived encouragement in athletics by peers, perceived encouragement in academics by peers, father educational expectations, mother educational expectations, peer educational expectations, and coach educational expectations. Six of the eight predictor variables (a not strong but exclusive athletic identity, time invested in academics, perceived encouragement in academics by peers, as well as father, mother, and peer educational expectations) exhibited correlations in the hypothesized direction. Perceived encouragement in athletics by peers and perceived coach's educational expectations were both significant predictors of educational attainment in the opposite direction of the hypothesized relationship.

The model was reduced to contain only the control variables and the predictor variables that were found to be significant in the full model in order to achieve a more parsimonious fit. The coefficient estimates, standard errors, *t*-statistics, and *p*-values are shown in Table 8. The overall model was statistically significant, F(17,956) = 176.67, p < .01, $R^2 = 0.30$, suggesting 30.3% of the variance for student educational attainment can be attributed to the parameters in Table 8.

Parameter	Estimate	Standardized	SE	t-statistic	<i>P</i> <-value
Name		Beta			
Constant	-1.02		0.18	-5.77	0.001*
Control					
Variables					
SES	0.37	0.21	0.03	12.38	0.001*
Female	0.23	0.09	0.04	5.46	0.001*
Asian/Pacific	0.09	0.01	0.12	0.81	0.420
Islander					
Hispanic	-0.06	-0.01	0.06	-0.92	0.357
Black	0.03	0.01	0.07	0.48	0.629
American	0.11	0.01	0.14	0.82	0.415
Indian/Alaskan					
Athletic Ability	0.18	0.06	0.05	3.70	0.001*
Academic	0.04	0.29	0.00	16.79	0.001*
Ability					
School Size	-0.02	-0.04	0.01	-2.72	0.007*
Predictor					
Variables					
Not Strong but	-0.30	-0.04	0.09	-3.54	0.001*
Exclusive AI					
Time Invested	0.03	0.03	0.02	1.91	0.056
in Academics					
Athletic	0.08	0.04	0.03	2.48	0.013*
Encouragement					
From Peers					
Academic	0.12	0.05	0.04	3.30	0.001*
Encouragement					
From Peers					
Father	0.08	0.04	0.03	2.41	0.016*
Educational					
Expectations			0.04	1.0.4	0.044
Mother	0.07	0.03	0.04	1.84	0.066
Educational					
Expectations		0.15	0.00	0.71	0.001*
Peer	0.23	0.15	0.03	8./1	0.001*
Educational					
Expectations	0.17	0.00	0.04	4.70	0.001*
Coach	-0.1/	-0.09	0.04	-4./9	0.001*
Educational					
Expectation					

Table 8. Educational Attainment

*Statistically significant at the 0.05 level **Mean Square Error = 1.26

Higher educational attainment by a student is predicted by the absence of a not strong but exclusive athletic identity, a greater time investment in academics, greater encouragement from peers in both athletics and academics, higher perceived educational expectations of the father, mother, and peers, and lower perceived educational expectations of the coach. All predictor variables were significant in the hypothesized direction except for peer encouragement in athletics, which was a positive predictor of educational attainment, and perceived educational expectations of the coach, which was found to be associated with lower educational attainment.

Interestingly, two predictor variables, time invested in academics and the perceived educational expectations of the mother were no longer found to be significant in the reduction of the educational attainment model. These variables may have dropped in significance for a number of reasons. One reason educational expectations from the mother may have fallen from significance could be the fact that it was found to be very highly correlated with educational expectations from the father. The two variables may be describing the same concept, such as parental educational expectations. Therefore, only one of the two variables is needed in the model to represent the underlying construct. The model was further reduced to exclude the two variables that no longer held a significant role in the model. Results of the further reduced model can be found in Table 9.

Parameter	Estimate	Standardized	SE	t-statistic	<i>P</i> <-value
Name		Beta			
Constant	-0.97		0.17	-5.65	0.001*
Control					
Variables					
SES	0.37	0.21	0.03	12.30	0.001*
Female	0.23	0.09	0.04	5.51	0.001*

 Table 9. Educational Attainment (2nd reduction)

Table 9 (cont'd).

Asian/Pacific	0.09	0.01	0.12	0.82	0.414
Islander					
Hispanic	-0.05	-0.01	0.06	-0.83	0.407
Black	0.03	0.01	0.07	0.38	0.706
American	0.09	0.01	0.13	0.71	0.476
Indian/Alaskan					
Athletic Ability	0.19	0.06	0.05	3.73	0.001*
Academic	0.04	0.29	0.00	17.33	0.001*
Ability					
School Size	-0.02	-0.04	0.01	-2.77	0.006*
Predictor					
Variables					
Not Strong but	-0.30	-0.04	0.09	-3.58	0.001*
Exclusive AI					
Athletic	0.08	0.04	0.03	2.53	0.012*
Encouragement					
From Peers					
Academic	0.13	0.05	0.04	3.62	0.001*
Encouragement					
From Peers					
Father	0.12	0.05	0.03	4.97	0.001*
Educational					
Expectations					
Peer	0.24	0.16	0.03	8.87	0.001*
Educational					
Expectations					
Coach	-0.16	-0.08	0.04	-4.58	0.001*
Educational					
Expectation					

*Statistically significant at the 0.05 level

**Mean Square Error = 1.27

The overall model for the second reduction of educational attainment was statistically significant, F(15,958) = 190.709, p < .01, $R^2 = 0.30$, indicating 30.2% of the variance for student educational attainment can be described by the variables listed above in Table 10. Once again, all variables were found to be significant in the hypothesized direction, except for athletic encouragement from peers and perceived educational expectations of the coach.

Summary

Neither of the two hypotheses tested were found to be supported in their entirety. However, both of the hypotheses were found to be partially supported. The variance of each dependent variable was found to be better explained using fewer than the 22 original predictor variables in a more parsimonious model. Implications for the findings are discussed further in the following chapter.

CHAPTER V

DISCUSSION

The results of Chapter IV are discussed in three major sections. First, the significance of the predictor variables are interpreted and discussed, followed by a discussion of the control variables. Finally, suggestions for directions in future research and policy are discussed.

Predictor Variables

The variables of interest in this dissertation were perception variables and type of sport. Perception variables included perceived encouragement and expectations from significant others, perceived athletic identity, and perceived time invested in athletics and academics.

Significant Others

Of all of the predictor variables, the variables measuring encouragement and expectations from significant others turned out to be the strongest predictors of student educational expectations and attainment. Peers, in particular, were found to be the most important predictors of the outcome variables. Peer encouragement in athletics and academics, as well as the student's perceived educational expectations of his or her peers, were all positively related to student educational expectations and attainment assessed 8 years after high school.

Peers. Peer groups appear to play an influential role in the development of educational expectations among high school students. The results of the present study supports the work of McDill and Coleman (1965), as well as Picou and Carter (1976) who found that peer influences exceed parental influences in terms of educational

expectations. Other research, however, has found that peer interactions do not seem to be encouraging of educational expectations. Schneider and Stevenson (1999) found that when peer groups talk about the future and future goals, conversation tends to be more competitive than encouraging. However, it is possible that this competitive talk may be perceived as a challenge to students, and therefore encouraging of productive behaviors such as academic attainment. In the present study, perceived encouragement was measured as perceived importance among friends to play sports and to study/get good grades. Peers' expectations were perceptions of how far the respondents thought their friends thought they would get after high school. Follow-up research is necessary to determine the specific pathways of interactions among peers, perhaps using social network analysis.

In the past, the influence of peer groups may have been partly explained by participation in athletics. Peer groups involved in athletics have been found to develop tight bonds and a pro-school subculture (Phillips & Schafer, 1971; Schafer & Rehberg, 1970; Schneider & Stevenson, 1999). The current study found that peer groups proved to be an important predictor of academic expectations and attainment even after controlling for athletic participation. Perhaps this is why athletic encouragement from peers was positively associated with educational expectations and attainment. Participation in athletics with peer groups who have been found to develop pro-school attitudes may encourage individuals to set and attain higher educational goals.

Parents. Parental expectations seemed to be a more important factor than parental encouragement in either athletics or academics for student educational expectations and attainment. Mother and Father educational expectations were positively predictive of
student educational expectations. High educational expectations from parents may be internalized by high school students, which would support the findings of Qian and Blair (1999), Useem (1992), and Wilson and Wilson (1992). With this in mind, given Schneider and Stevenson's findings (1999), in which 88% of students reported having parents with the generally high educational expectations of earning a college, professional or advanced degree, it can be speculated that the majority of students will also have high educational expectations.

When the educational expectations of parents are internalized by students, the self-fulfilling prophecy may take effect. Students who believe that they will attain a higher level of education may put in extra time and energy to studies in order to attain the desired level of education. This may be one explanation of why perceived parental educational expectations were found to be a significant positive predictor of educational attainment. When the model for student educational attainment was reduced, however, the educational expectations of the mother were no longer found to be statistically significant. Perhaps the educational expectations of the mother dropped out of the equation because a degree of multicollinearity occurred between the mother and father expectations. The significance and importance of father educational expectations increased when mother educational expectations was dropped from the model. The two variables were closely related and could possibly be better explained by one factor.

Interestingly, athletic encouragement from parents was found to be a positive predictor of student educational expectations while academic encouragement from parents was not. Perhaps parental encouragement in athletics allows students to participate in sport, where they mix with peers who value and support education, as

described above, thereby encouraging the child to develop greater educational expectations. Caution should be taken with the interpretation of this result, however. Athletic encouragement from parents was measured by how often the respondent takes sport lessons, which could be a greater indicator of SES and/or parental care and involvement in the respondent's life than actual athletic encouragement. On the other hand, academic encouragement was measured by how often parents checked on respondent's homework and how often they helped the respondent with homework. Perhaps this was an indication that the student had little academic ability or drive, and needed a parent's help with homework. Or, parental help with homework could have made the student feel that the student's parents did not believe the student would be successful in academic endeavors on his or her own. Parental help with homework could be viewed as parental lack of confidence in the child's academic ability rather than encouragement in this light.

Coaches. The perceived educational expectations of the coaches by the students were negatively related to student educational expectations and attainment, but accounted for a small amount of the variance. This significant finding was still very surprising and completely unexpected. The finding contradicts the previous work of Snyder (1972) who, in his work with high school basketball players and coaches, found a moderate positive correlation between a coach's educational advice and the student-athlete's post-high school educational plans.

A couple of reasons can be postulated for the unexpected results of the present study in regards to coach educational expectations. First, the findings of the present study could represent a belief by respondents that coaches base their educational

attainment expectations on a student's athletic ability, rather than actual academic ability. Coaches may espouse the idea that their athletes could attend a four-year college if they work hard in athletics and earn a scholarship, and the students may pick up on these beliefs. In reality chances of receiving a full-ride athletic scholarship are very slim. Even if an athlete does receive an athletic scholarship, he or she may not survive college academically and have to drop out of college. A second reason for these findings could be that high school students believe their coaches encourage them to achieve academically despite, or perhaps in spite, of their own personal educational expectations. Though the number of students who did not expect to graduate high school was small (n=29), 100% of those individuals believed that their coach held fairly high educational expectations of the student going to a trade school or to college. Coaches may see those students who don't believe in their ability to advance academically as a challenge, and may therefore provide even greater encouragement to these individuals. More research needs to be conducted studying the role coaches play in the educational lives of studentathletes to attain a better understanding of the surprising results presented in the current study.

Teachers. The educational expectations of teachers were not found to be significant in the student educational expectation regression model or the student educational attainment regression model. Teacher educational expectations may not have been found to be significant in either model because the variable was highly correlated with coach educational expectations, and there may have been a small degree of multicollinearity. In addition to its high correlation with coach educational expectations, teacher educational expectations have also been related to other factors controlled for in

this study, such as race and social class (Dusek & Joseph, 1983). Another explanation could be that teachers base their educational expectations on their student's academic ability, which is another control variable accounted for in the present study. Perhaps the variance explained by teacher educational expectations was already accounted for by the control variables in this study.

Athletic Identity

Of the four athletic identity variables studied, only a not strong but exclusive athletic identity (NSEAI) was found to be a significant negative predictor of educational expectations and educational attainment. These findings suggest having an exclusive athletic identity in itself is not necessarily detrimental to the development of higher educational expectations and attainment. Only when linked with a moderate strength of athletic identity is an exclusive athletic identity found to have a negative association with student educational expectations and attainment.

Why is a moderately strong but exclusive athletic identity found to be a negative predictor of educational expectations and attainment while a strong and exclusive athletic identity (SEAI) was not found to be significant? One plausible explanation for this finding is that students with a NSEAI may not believe they have the ability to go to college on an athletic scholarship or be admitted to Division 3 schools based on their mediocre athletic prowess, while students with a SEAI may expect to go to college for sport. NSEAI was the only identity variable negatively correlated with athletic ability (r=-0.02, p<.05). Athletic ability is positively correlated with athletic identity (r=0.45, p<.01), SEAI (r=0.07, p<.01), SNEAI (r=0.39, p<.01), and even NSNEAI (r=0.02, p<.05), although the correlations between athletic ability and both SEAI and NSNEAI are

very low. It is possible that the other identity variables were not found to be significant because they are somewhat highly correlated with the control variable of athletic ability.

Care should be taken with the interpretation of the athletic identity variable results for a variety of reasons. The first reason is that only about 1% of the sample population indicated that they had a SEAI. With such low numbers, it might be difficult to reach a significant correlation. A second reason care should be taken with the interpretation of these results is that the identity variables were based on how the respondent thought others viewed him or her in terms of athletic and academic ability. The variables of athletic and academic ability had already been controlled for in the model, and therefore, may have led to low levels of significance among the athletic identity variables. Additionally, the measure of athletic identity used in the present study ("students think of respondent as being athletic") had a rather low correlation with the athletic identity scores measured by the Athletic Identity Measurement Scale (AIMS). Future studies in this area should consider using the AIMS as a measure of athletic identity.

Type of Sport

Of the seven types of sport used as predictors in the two full regression models, only participation in an individual sport was found to be predictive of educational expectations. The association between individual sport participation and student educational expectations was positive but accounted for only a small amount of the variance. One reason for this association may be that individual sport mirrors the generally individual and competitive nature of academics. Athletes who are successful in individual sport competition may believe that they have the talent and drive to be successful in other areas of life, including academics. The positive relationship between

individual sport participation and educational expectations could also be explained in terms of a selection factor. Those who hold the belief that they will be successful as an individual academically may also be drawn to the individually competitive nature of individual sport.

Not one type of sport participation was found to be related to educational attainment when all control variables had been taken into account. This is good news for high school athletics. The findings of the current study indicate participation in high school sport, including revenue sports that were deemed detrimental to educational attainment among college students (Purdy, Eitzen, & Hufnagel, 1982; NCAA, 2007), does not seem to affect educational expectations and attainment when controlling for SES, gender, race/ethnicity, athletic and academic abilities, and school size.

Time Investment in Athletics and Academics

Time invested in academics was found to be significantly and positively predictive of educational attainment, but again, was a weak association. This is not a surprising finding. Students who spend more time trying to better themselves academically tend to achieve higher levels of academic attainment. Time invested in athletics was not found to be negatively predictive of educational attainment. This is good news for those who spend a great deal of time on athletic development or those who participate in many sports. Perhaps being highly involved in sport teaches high school student-athletes the importance of time management, which is a useful skill in college, as students usually have to manage more coursework and homework than they do at the high school level. Neither time investment in athletics nor academics was found to be a significant predictor of student educational expectations.

Control Variables

Overall, the control variables included in this study accounted for the majority of the variance within both of the hypothesized regression models. But, these are ascribed variables that cannot be easily changed in order to improve their influence on educational expectations and attainment. However, in order to get a more accurate assessment of the predictive strength of the psychosocial perception factors, the ascribed variables must be controlled in the regression analyses. Academic ability, as measured by standardized scores in math and reading, was the most influential predictor of educational expectations and attainment. This comes as no surprise given the extensive coverage of the relationships in previous literature (i.e., Sewell & Shah, 1967; Sewell, Haller, & Portes, 1969; Wilson & Portes, 1975). Prior literature supports the findings of the current study, which acknowledges that academic ability is a large factor in the prediction of educational expectations and attainment, but it does not explain all of the variance among the control variables.

Socioeconomic status (SES) was found to be the second largest factor in the prediction of both educational expectations and attainment. Like academic ability, the positive relationship between educational expectations and attainment has been well documented in past research (i.e., Quian & Blair, 1999; Sewell & Hauser, 1975; Sewell & Shah, 1968), and the relationship was expected to appear in the present study. There are many theories that have been posed to explain the relationship between SES and educational expectations and attainment. Two of the most prevalent and plausible theories are (a) those who come from families with a higher SES are less likely to drop out of school with a need to work to help support their family, and (b) individuals from

higher SES families are more likely to afford the rising costs of continued education. Although one's SES is a difficult factor to change, educational institutions have tried to provide financial aid programs to help 'need-based' students with their educational costs. State and local governments were reported to spend almost \$55 billion on need-based financial assistance in 2000 (Singall, 2004). Need-based financial aid, in addition to merit-based financial aid, has been found to increase retention rates among college students (Singell, 2004).

Unlike academic ability and SES, gender has played a less steady role in the prediction of educational expectations and attainment. The current study found that being female positively predicted educational expectations and attainment. Of the control variables, gender was the third most important predictor of educational attainment and the fifth most important predictor of educational expectations. The positive relationships between being female and the educational outcome variables contradict the earlier findings of Berman and Haug (1975) and Alexander and Eckland (1974), who found that females fell short of males in terms of educational expectations and attainment. This study's findings concur with more recent research yielding a positive relationship between being female and educational attainment (Garner & Raudenbush, 1991).

The present study also found many minority ethnicities to be positively predictive of educational expectations. Identifying as Black, Hispanic, or Asian/Pacific Islander was positively related to academic expectations. While higher educational expectations are generally viewed in a positive light, one should exercise a bit of caution when interpreting these results. Previous literature has suggested that some minority groups may hold unrealistically high educational expectations (Gist & Bennett, 1963; Dreger &

Miller, 1968). The present study may support this claim on the basis that minority race/ethnicity was not found to be significantly predictive of academic attainment when controlling for the variables listed above.

While sport participation has been linked to higher educational attainment levels (Bend, 1968; Shulman & Bowen, 2001), there is a gap in research studying the relationships between athletic ability and educational expectations and attainment. Because a major focus of this study examined athletic identity via perceptions in how others viewed the participant's athletic and academic abilities, it would follow that this study should control for athletic ability in addition to controlling for academic ability. The present study found athletic ability, as measured by whether or not the athlete was on a varsity team, to be significant and positively predictive of both educational expectations and attainment. However, the relationship accounted for a relatively small amount of the variance and its explanation is still speculative. One explanation could be that better students are more inclined to excel in athletics. Academic individuals may be better prepared to become a "student of the game." They also may have personality characteristics, such as focus and drive, causing them to excel in both the field of academics, as well as athletics. On the other hand, athletes may develop motivational characteristics and goal setting skills that generalize to academics, allowing the studentathlete to set and reach higher educational goals. A third plausible theory is that superior athletes may receive preferential treatment within a school system, such as better scheduling and greater academic support to maintain eligibility, thereby allowing the superior student-athlete to have higher educational expectations and attain more academically than the average athlete or the non student-athlete. Alternatively, athletes

must maintain a certain grade-point average to play on a varsity team, and those with lower GPAs may have been eliminated from participation. Future research should look more carefully into this relationship.

A fifth control variable that proved to be significant for both educational expectations and attainment, but did not account for much of the variance, was school size. Interestingly, school size was positively related to educational expectations but negatively predictive of educational attainment. This finding supports the research of Fowler and Walberg (1991) who reported the existence of a negative relationship between school size and educational attainment. One explanation for this negative relationship may be that students in very large schools have a smaller chance of participating in extra-curricular activities with limited openings (such as sport) that have been linked to academic attainment (Bend, 1968; Shulman & Bowen, 2001). Another possible explanation is that students from large schools may get "lost in the mix" and not receive the academic support that they need.

Limitations

By utilizing the pre-existing NELS database with its large, nationally representative sample and longitudinal data, the findings of the present study can be generalized to all American high school students. However, some limitations do arise in the use of the NELS database. One limitation is that some of the variables used in the study were not directly measured by NELS variables, and had to be assessed by the most closely related available NELS variables, as described in greater detail previously. Variables that could not be directly measured by the NELS include athletic ability, academic and athletic encouragement from peers, academic and athletic encouragement

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from parents, and all of the athletic identity variables. Future research should collect primary data to study the impact of these variables on educational expectations and attainment using measures that directly assess these variables.

Another limitation of the NELS database is that it is now somewhat dated. The social and economic landscape of America has changed a great deal over the past 2 decades. An argument can be made that the focus of high school sport has greatly changed over the past 20 years, as well. Children are now being identified at earlier ages as potential athletic stars by parents and coaches, which may lead to an earlier and greater identification with the athletic role and an increased desire to reach high levels of athletic achievement. Female athletes, in particular, may feel greater pressure to become successful in athletics as the number of female athletic scholarship opportunities has increased. More current research should be conducted to examine how the variables included in the current study influence the educational aspirations and attainment of today's high school students.

Summary and Future Directions

As stated previously, the control variables included in this study accounted for the largest amount of variance in both the educational expectation and the educational attainment regression models. In particular, academic ability and SES were found to be the largest predictors of student educational expectations and educational attainment. Interestingly, athletic ability was also positively related to educational expectations and attainment. As a largely unstudied variable in the realm of education, future studies should take a closer look into this relationship and why it exists.

After controlling for the given ascribed variables, significant others, and peers in particular, seemed to play the largest role in the development of educational expectations and attainment. This relationship may be of a benefit to athletes who tend to have peer groups with positive educational outlooks. The most surprising findings were the negative relationships found to exist between coach educational expectations and student educational expectations and attainment. Further studies should be conducted to explore whether or not this was a measurement artifact. Additionally, a path analysis should be conducted, using primary data with more variable-specific measures, in order to acquire a better understanding of how the significant variables in the regression models interact to influence student educational expectations and attainment.

In terms of athletics, participation in high school sport does not appear to have negative ramifications for student educational expectations or attainment, after controlling for demographic and ascribe variables. Participation may even promote higher educational expectations and greater educational attainment through socialization with peer groups who are able to provide a positive impact on the educational outcomes.

Special attention should be paid to high school student-athletes who are not very good students and do not see themselves as particularly talented in athletics. This group of students was found to have lower educational expectations and attainment than the general student population. Parents, teachers, and coaches should place greater importance on emphasizing academic development to these students. Parents, teachers, and coaches can offer assistance by helping these students set academic goals, and then teach the students learning techniques that would assist them in attaining said goals and reach higher levels of education.

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APPENDIX A

POSSIBLE VARIABLES

BYS40CC – Mother/Female guardian's occupation

BYS70CC – Father/Male guardian's occupation

BYS12 - Sex

BYS31A - Race/Ethnic Background

BYS34A – Father's highest level of education

BYS34B – Mother's highest level of education

BY36B – Respondent discusses school activities with parents

BYS45 - How far in school do you think you will get

BYS51BA - Respondent talks to counselor about jobs/career after high school

BYS51BB - Respondent talks to teacher about jobs/career after high school

BYS51BC - Respondent talks to other adults about jobs/career after high school

BYS52 - Kind of work respondent expects to do at age 30

BYS56B – Students in class see respondent as athletic

BYS56C – Students in class see respondent as a good student

BYS82B – Respondent participated in school varsity sports

BYS82E – Respondent participated in band or orchestra

BYS82F – Respondent participated in chorus or choir

BYS82O - Respondent participated in academic honors society

BYS82R – Respondent participated in student council

BYS82T - Respondent participated in religious organization

BYS83F - Respondent participated in non-school team sports

G8URBAN – Urbanicity composite (type of school)

G8REGON – Composite geographic region of school

BIRTHYR – Year of birth

BYSES – SES Composite

BYPSEPLN – Post-secondary educational plans

G10URBAN - Type of school

G10REGON – Composite geographic region of school F1SES – SES Composite

F1S8C – Respondent won an academic honor

F1S8F – Respondent received recognition for good grades

F1S8H – Respondent was named MVP on a sports team

F1S25G - How much coursework in career exploration

F1S36A1 – Time spent on homework in school

F1S36A2 – Time spent on homework out of school

F1S38- How important are good grades to respondent

F1S41AA – Played baseball/softball at school

F1S41AB – Played basketball at school F1S41AC – Respondent played football in high school F1S41AD – Played soccer at school F1S41AE – Participated on swim team at school F1S41AF – Played other team sport F1S41AG – Played an individual sport F1S41BB - Respondent participated in school band/orchestra F1S41BC – Respondent participated in student government F1S41BD – Respondent participated in academic honor society F1S41BG - Respondent participated in school academic clubs F1S44F – How often does respondent play ball or other sports F1S44N – How often respondent takes sports lessons F1S44O – How often respondent attends religious activities F1S47A – Father's desire for respondent after high school F1S47B – Mother's desire for respondent after high school F1S47C – Friend's desire for respondent after high school F1S47E – School counselor's desire for respondent after high school F1S47F – Favorite teacher's desire for respondent after high school F1S47G – Coach's desire for respondent after high school F1S48A – How far in school father wants respondent to go F1S48B – How far in school mother wants respondent to go F1S49 – How far in school respondent thinks he will get F1S51 – Does respondent plan to go to college after high school F1S53A – Occupation respondent expects to have after high school F1S53B - Occupation respondent expects to have at age 30 F1S64A – Chances that respondent will graduate from high school F1S64B – Chances that respondent will go to college F1S66D – Education is important to get a job later F1S66F – Respondent goes to school because he plays on a team F1S67B – Students think of respondent as being athletic F1S67D – Students think respondent is a good student F1S70A – Important to attend class regularly F1S70B – Among friends, how important is it to study? F1S70C – Among friends, how important is it to play sports? F1S70D – Among friends, how important is it to get good grades? F1S70F – Among friends, how important is it to finish high school? F1S70I – Important to continue education past high school F1S70J – Important to participate in religious activity F1S70K - Important to do community work/volunteer F1S100A – How often parent's check respondent's homework F1S100B – How often parents help respondent with homework F1S104C – Who decides which classes respondent will take? F1S104H – Who decides if respondent goes out for a school sport F1S104J – Who decides if respondent should go to college F1RACE – Composite race F1SES – Socio-economic status composite

F1SESQ – Socio-economic quartile

F1PARED – Parents' highest education level

F1SCENRL - Entire school enrollment

G10ENROL – Tenth grade enrollment

F12XRSTD - Reading standardized score

F12XMSTD – Mathematics standardized score

F12XSSTD - Science standardized score

F12XHSTD - History/cit/geog standardized score

F12XCOMP – Standardized test composite (reading/math)

(Also available in quartile rankings)

F1SCH_ID - F1 school ID

F1N2 – Respondent's sex

F1N8A – Which best describes respondent's race

F2S25F1 – Total time spent on homework in school

F2S25F2 – Total time spent on homework out of school

F2S29B - Respondent won an academic honor

F2S29E – Received recognition for good grades

F2S29G – Named MVP on sport team

F2S30AA – Participated on a sport team at school

F2S30AB – Participated in individual sport at school

F2S30BA – Participated in school music group

F2S30BB – Participated in a school play or musical

F2S30BC – Participated in school government

F2S30BD – Participated in academic honor society

F2S30BF – Participated in school service clubs

F2S30BG - Participated in school academic clubs

F2S30BJ - Participated in intramural team sport

F2S30BK – Participated in intramural individual sport

F2S31 – Time spent on extracurricular activities

F2S33A – How often does respondent use personal computers

F2S33B – How often does respondent work on hobbies

F2S33C – How often respondent attends religious activities

F2S33E - How often respondent performs community services

F2S33G - How often does respondent do things with friends

F2S33K – How often respondent takes sport lessons

F2S33L – How often does respondent play ball or other sports

F2S40O – Important getting a good education

F2S41A - Father's desire for respondent after high school

F2S41B - Mother's desire for respondent after high school

F2S41C – Friend's desire for respondent after high school

- F2S41D Close relative's desire for respondent after high school
- F2S41E School counselor's desire for respondent after high school
- F2S41F Favorite teacher's desire for respondent after high school
- F2S41G Coach's desire for respondent after high school
- F2S42A How far in school father wants respondent to go
- F2S42B How far in school mother wants respondent to go
- F2S43 How far in school respondent thinks s/he will get
- F2S50L Does not feel school is important
- F2S64A Occupation respondent expects to have after high school
- F2S64B Occupation respondent expects to have at age 30
- F2S65 Expected education respondent needs for job at age 30
- F2S68A Important to attend class regularly
- F2S68B Among friends, how important is it to study
- F2S68C Among friends, how important is it to play sports
- F2S68D Among friends, how important is it to get good grades
- F2S68F Among friends, how important is it to finish high school
- F2S68H how important is it to continue education past high school
- F2S98H Who decides if respondent should go to college
- F2QFLG Second follow-up questionnaire available
- F2TXFLG Student tests available
- F2TRSCFL F2 transcript flag
- F2DOSTAT Dropout Status
- F2SEX Composite sex
- F2RACE1 Composite race
- F2SES1 Socio-economic status composite
- F2F1SCFL Student attended same school in 1990/92
- G12CTRL1 School classification reported by school
- G12URBN3 Type of school district, diocese, county
- G1REGON Region (census) of student's school
- F22XCOMP F2 Std test comp (reading, math)
- F2N2 Respondent's sex

VARATH – Varsity intercollegiate athletics OTHERATH – Other intercollegiate athletics INTRATH – Intramural athletics

APPENDIX B

VARIABLE DESCRIPTIVES

Table 1. Educati	onal Expectati	on Descriptive	s		
Variable	Mean	SE (mean)	SD	Minimum	Maximum
How far in	7.43	0.04	1.99	1.00	10.00
school student					
thinks s/he will					
get					
Control					
Variables					
SES	-0.01	0.02	0.76	-2.44	2.76
Academic	51.39	0.22	9.68	30.31	71.82
Ability					
School Size	4.63	0.08	2.39	1.00	9.00
Predictor					
Variables					
Time Invested	2.24	0.02	1.27	0.00	7.00
in Academics					
Time Invested	2.30	0.02	1.09	1.00	4.00
in Athletics					
Athletic	1.34	0.01	0.81	1.00	4.00
Encouragement					
from Parents					
Athletic	2.00	0.01	0.74	1.00	3.00
Encouragement					
from Peers					
Academic	2.51	0.01	0.83	1.00	4.00
Encouragement					
from Parents					
Academic	2.36	0.01	0.54	1.00	3.00
Encouragement					
from Peers					
Father	3.75	0.01	0.61	1.00	4.00
Educational					
Expectations					
Mother	3.81	0.01	0.53	1.00	4.00
Educational					
Expectations					
Peer	3.37	0.01	0.89	1.00	4.00
Educational					
Expectations					
Teacher	3.79	0.01	0.57	1.00	4.00
Educational					
Expectations					

3.64	0.01	0.70	1.00	4.00
779,526				
tions: 9,7	28			
	3.64 779,526 tions: 9,7	3.64 0.01 779,526 tions: 9,728	3.64 0.01 0.70 779,526 tions: 9,728	3.64 0.01 0.70 1.00 779,526 tions: 9,728

Table 5. Educational Attainment Descriptives						
Variable	Mean	SE (mean)	SD	Minimum	Maximum	
Highest PSE	2.38	0.03	1.34	1.00	6.00	
Attained as of						
2000						
Control						
Variables						
SES	-0.01	0.02	0.77	-2.44	2.76	
Academic	51.18	0.24	9.72	30.31	71.82	
Ability						
School Size	4.71	0.09	2.39	1.00	9.00	
Predictor						
Variables						
Time Invested	2.21	0.02	1.26	0.00	7.00	
in Academics						
Time Invested	2.30	0.02	1.10	1.00	4.00	
in Athletics						
Athletic	1.34	0.02	0.81	1.00	4.00	
Encouragement						
from Parents						
Athletic	2.00	0.02	0.74	1.00	3.00	
Encouragement						
from Peers						
Academic	2.51	0.02	0.84	1.00	4.00	
Encouragement						
from Parents						
Academic	2.37	0.01	0.54	1.00	3.00	
Encouragement						
from Peers						
Father	3.75	0.01	0.61	1.00	4.00	
Educational						
Expectations						
Mother	3.80	0.01	0.54	1.00	4.00	
Educational						
Expectations						

Table 5 (cont'd).					
Peer	3.36	0.02	0.89	1.00	4.00
Educational					
Expectations					
Teacher	3.79	0.01	0.56	1.00	4.00
Educational					
Expectations					
Coach	3.63	0.01	0.71	1.00	4.00
Educational					
Expectations					
*Weighted $N = 2$	2,523,675				
**Actual Observ	ations: 9,668				

APPENDIX C

FREQUENCIES

Student Educational Expecta	itions	
Response	Frequency	Percent
1-Less than High School	29	0.2
2-High School Grad Only	512	4.2
3-Less than 2yrs. Trade	177	1.5
School		
4-2 or more years of Trade	398	3.3
School		
5-Trade School Degree	774	6.4
6-Less than 2yrs. College	861	7.1
7-2 or more years of	2020	16.6
College		
8-Finish College	3817	31.4
9-Master's Degree	1996	16.4
10-PhD or MD	1560	12.8
Total	12,144	100.0
Student Educational Attainm	nent	
Response	Frequency	Percent
1-Some Post-Secondary	4578	37.7
Ed., no degree attained		
Ed., no degree attained 2-Certificate/License	2389	19.7
Ed., no degree attained 2-Certificate/License 3-Associate's Degree	2389 1110	19.7 9.1
Ed., no degree attained 2-Certificate/License 3-Associate's Degree 4-Bachelor's Degree	2389 1110 3597	19.7 9.1 29.6
Ed., no degree attained 2-Certificate/License 3-Associate's Degree 4-Bachelor's Degree 5-Master's Degree	2389 1110 3597 393	19.7 9.1 29.6 3.2
Ed., no degree attained 2-Certificate/License 3-Associate's Degree 4-Bachelor's Degree 5-Master's Degree 6-PhD or Professional	2389 1110 3597 393 77	19.7 9.1 29.6 3.2 0.6
Ed., no degree attained 2-Certificate/License 3-Associate's Degree 4-Bachelor's Degree 5-Master's Degree 6-PhD or Professional Degree	2389 1110 3597 393 77	19.7 9.1 29.6 3.2 0.6
Ed., no degree attained 2-Certificate/License 3-Associate's Degree 4-Bachelor's Degree 5-Master's Degree 6-PhD or Professional Degree Total	2389 1110 3597 393 77 12,144	19.7 9.1 29.6 3.2 0.6 100.0
Ed., no degree attained 2-Certificate/License 3-Associate's Degree 4-Bachelor's Degree 5-Master's Degree 6-PhD or Professional Degree Total Gender	2389 1110 3597 393 77 12,144	19.7 9.1 29.6 3.2 0.6 100.0
Ed., no degree attained 2-Certificate/License 3-Associate's Degree 4-Bachelor's Degree 5-Master's Degree 6-PhD or Professional Degree Total Gender Response	2389 1110 3597 393 77 12,144 Frequency	19.7 9.1 29.6 3.2 0.6 100.0 Percent
Ed., no degree attained 2-Certificate/License 3-Associate's Degree 4-Bachelor's Degree 5-Master's Degree 6-PhD or Professional Degree Total Gender Response 0-Male	2389 1110 3597 393 77 12,144 Frequency 5725	19.7 9.1 29.6 3.2 0.6 100.0 Percent 47.1
Ed., no degree attained 2-Certificate/License 3-Associate's Degree 4-Bachelor's Degree 5-Master's Degree 6-PhD or Professional Degree Total Gender Response 0-Male 1-Female	2389 1110 3597 393 77 12,144 Frequency 5725 6326	19.7 9.1 29.6 3.2 0.6 100.0 Percent 47.1 52.1
Ed., no degree attained 2-Certificate/License 3-Associate's Degree 4-Bachelor's Degree 5-Master's Degree 6-PhD or Professional Degree Total Gender Response 0-Male 1-Female Missing	2389 1110 3597 393 77 12,144 Frequency 5725 6326 93	19.7 9.1 29.6 3.2 0.6 100.0 Percent 47.1 52.1 0.8

Race/Ethnicity		
Response	Frequency	Percent
Asian or Pacific Islander	824	6.8
Hispanic	1593	13.1
Black	1151	9.5
Caucasian	8271	68.1
American Indian or Alaskan	142	1.2
Missing	163	1.3
Total	12,144	100.0
Athletic Ability		
Response	Frequency	Percent
0-Did not play on varsity	7485	61.6
team in 9th grade		
1-Played on varsity team in	2681	22.1
9th grade		
Missing	1978	16.3
Total	12,144	100.0
School Size		
Response	Frequency	Percent
1 (1-399 Students)	1430	11.8
2 (400-599 Students)	1367	11.3
3 (600-799 Students)	1251	10.3
4 (800-999 Students)	1453	12.0
5 (1,000-1,199 Students)	1819	15.0
6 (1,200-1,599 Students)	1776	14.6
7 (1,600-1,999 Students)	1402	11.5
8 (2,000-2,499 Students)	843	6.9
9 (2,500 Students or more)	803	6.6
Total	12,144	100.0
Identities		
Response	Frequency	Percent
Strong and Exclusive	104	0.9
Athletic Identity (SEAI)		
Not Strong but Exclusive	351	2.9
Athletic Identity (NSEAI)		
Strong but Not Exclusive	1,997	16.4
Athletic Identity (SNEAI)		
Not Strong and Not	6,025	49.6
Exclusive Athletic Identity		
(NSNEAI)		
None of the Above	3,667	30.2
Total	12,144	100.0

Time Invested in Athle	etics				
Response		Frequency		Percent	t
1-Rare or never		3,311		27.3	
2-Less than once a we	ek	3,677		30.3	
3-Once or twice a wee	k	3,099		25.5	
4-Every day or almost	every	2,057		16.9	
dav	2				
Total		12,144		100.0	
		,			
Type of Sport Played					
Sport	Freque	ncy	Valid Percent		Missing Responses
Baseball or Softball	1,235	•	12.0		1,851
Basketball	1,506		14.6		1,844
Football	1.276		12.4		1.890
Soccer	615		6.0		1.948
Swim Team	318		3.1		2.030
Other Team Sport	1 063		10.4		1 970
Other Individual	2 108		20.5		1 875
Sport	2,100		20.5		1,075
opon					
Perceived Encouragen	nent in /	Athletics by Par	ents		
Response		Frequency	•••••	Percent	t
1-Rarely or never		9.910		81.6	-
2-Less than once a we	ek	769		6.3	
3-Once or twice a wee	-k	782		64	
4-Every day or almost	everv	683		5.6	
dav	every	005		5.0	
Total		12.144		100.0	
Perceived Encouragen	nent in A	Athletics by Pee	ers		
Response		Frequency		Percent	t
1-Not important		2,837		23.4	
2-Somewhat important	t	6,166		50.8	
3-Very important		3,141		25.9	
Total		12,144		100.0	
Perceived Encouragen	nent in A	Academics by P	arents	_	
Response		Frequency		Percent	
1-Never		1,097		9.0	
1.5		1,150		9.5	
2-Rarely		2,299		18.9	
2.5		2,993		24.6	
3-Sometimes		2,434		20.0	
3.5		1,556		12.8	
4-Often		615		5.1	
Total		12,144		100.0	

Perceived Encouragement	in Academics by Peers	
Response	Frequency	Percent
1-Not important	376	3.1
1.5	603	5.0
2-Somewhat important	5,023	41.4
2.5	2,636	21.7
3-Very important	3,506	28.9
Total	12,144	100.0
Father's Educational Expe	ctations	
Response	Frequency	Percent
1-They don't care	148	1.2
2-Get a full time job	487	4.0
3-Enter a trade school	1,403	11.6
4-Go to college	10,106	83.2
Total	12,144	100.0
Mother's Educational Exp	ectations	
Response	Frequency	Percent
1-They don't care	83	0.7
2-Get a full time job	394	3.2
3-Enter a trade school	1,079	8.9
4-Go to college	10,591	87.2
Total	12,144	100.0
Peer's Educational Expect	ations	
Response	Frequency	Percent
1-They don't care	771	6.3
2-Get a full time job	642	5.3
3-Enter a trade school	3,994	32.9
4-Go to college	6,737	55.5
Total	12,144	100.0
Teacher's Educational Exp	pectations	
Response	Frequency	Percent
1-They don't care	254	2.1
2-Get a full time job	132	1.1
3-Enter a trade school	1,268	10.4
4-Go to college	10,490	86.4
Total	12,144	100.0

Coach's Educational Expectations

Response	Frequency	Percent
1-They don't care	455	3.7
2-Get a full time job	185	1.5
3-Enter a trade school	2,602	21.4
4-Go to college	8,902	73.3
Total	12,144	100.0

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