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Propensity to Trust and the Impact on the Academic Success of Student-Athletes:
Implications for Athletic Officials in Higher Education

Trevor Thomas Wilson

A dissertation submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Doctor of Education

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ABSTRACT

Propensity to Trust and the Impact on the Academic Success of Student-Athletes: Implications for Athletic Officials in Higher Education

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Doctor of Education

Student-athletes enter higher education in the United States with diverse backgrounds and academic preparation. In some cases, student-athletes are underprepared for the academic rigor, social structure, and ethical expectations of these institutions. Athletic coaches are charged with the recruitment of highly skilled, competitive, and prepared student-athletes, while other athletic officials are responsible to provide the proper academic support, care, and overall well-being of student-athletes. If coaches, athletic administrators, advisors, and learning specialists could identify educational and demographic patterns related to student-athletes' propensity to trust, they would be better equipped to gain these students' trust and help them navigate the stress related to athletic participation and academic demands.

This quantitative study investigates the influence of individual student-athletes' propensity to trust and the relationship between academic success, measured by grade point average (GPA). This study also examines the relationship between propensity to trust and demographic and educational variables that may assist athletic coaches, athletic administrators, and athletic support staff, such as advisors and learning specialists, in better understanding the impact propensity to trust has on student-athletes. To determine propensity to trust, the current study used the validated Propensity to Trust Scale (PTTS) by Frazier, Johnson, and Fainshmidt (2013) as well as a demographic questionnaire developed to measure students' background and educational attributes. Responses to an online survey from 221 student-athletes were collected from a large, private research institution that participates in Division I National Collegiate Athletic Association (NCAA) athletics. Statistical analyses, including t-test, analysis of variance, and Fisher's Least Significant Difference post hoc test, were used to identify between-group differences, while multiple regression analyses identified differences in propensity to trust among demographic and educational variables. Findings indicate there was no significant differences in propensity to trust among scholarship and non-scholarship student-athletes, sex, or marital status, but significant differences did exist among student-athletes who are members of the church affiliated with the university, returned missionaries from the predominate religion, minority, and transfer students. In addition, differences in propensity to trust between different athletic teams were found. Finally, findings also indicate propensity to trust is related to current GPA. Implications from this study suggest that propensity to trust can be a valuable consideration when assessing how to provide proper support to current student-athletes. This research also suggests that a propensity to trust measure may be useful when recruiting prospective college student-athletes. Schools should not assume that propensity to trust is consistent among each team and each individual student-athlete.

Keywords: student-athlete, propensity to trust, higher education

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DESCRIPTION OF DISSERTATION CONTENT AND STRUCTURE

This dissertation, *Propensity to Trust and the Impact on the Academic Success of Student-Athletes: Implications for Athletic Officials in Higher Education*, is a hybrid dissertation approved by Brigham Young University's David O. McKay School of Education. The hybrid dissertation focuses on producing a journal-ready manuscript. As a result, the final product has fewer sections than the traditional format and focuses on the presentation of the scholarly manuscript as the centerpiece. Following the journal manuscript are appendices, which include the extended review of literature, consent form, and a methodological section sufficient for the requirements of an institutional review board.

The target journal for my dissertation is *NACADA Journal*. The target audience of *NACADA Journal* is the Global Community for Academic Advising, which is an association of professional advisors, counselors, faculty, administrators, and students working to enhance the educational development of students. All materials in the *NACADA Journal* are copyrighted by the National Academic Advising Association. The *NACADA Journal* is the biannual refereed journal of the National Academic Advising Association. Submissions undergo a thorough review. The purpose of NACADA is to advance scholarly discourse on academic advising in higher education.

Introduction and Background

The National Collegiate Athletic Association (NCAA) dates back to 1906 and aims to protect young people from the dangerous and exploitive practices of the time (NCAA.org, n.d.). At the time of its establishment, a movement was developing that deemed football too dangerous of a sport. Regulation was needed to safeguard student-athletes involved in college football. The original simple regulations that protected student-athletes enforced by the NCAA at its inception have evolved into a complex set of rules, regulations, and eligibility standards. In particular, regulations are fully established to ensure participating institutions monitor the academic progress and success of its student-athletes who engage in NCAA Division I college sports.

Because this study was conducted at an NCAA Division I institution, the focus of the study will refer to the current NCAA Division I structure. On August 7, 2014, the NCAA established a Board of Directors to manage Division I college athletics. The role of the Division I Board of Directors is to oversee membership, strategy, governance, and policy. The Board of Directors maintains the right to sponsor legislation and endorse or adopt academic standards for continuing eligibility. All participating institutions are expected to adhere to the highly prescribed legislation for continuing eligibility (see Table 1).

Table 1

NCAA Progress Toward Degree Requirements

Academic Requirements	Prior to the Second Year of Enrollment	Prior to the Third Year of Enrollment	Prior to the Fourth Year of Enrollment	Prior to the Fifth Year of Enrollment
Regular Academic Term	6 semester/6 quarter hours of credit			
Regular Academic Year	18 semester/27 quarter hours of credit			
Degree Credit	Credits accepted toward any degree	Credits used must go toward the designated degree		
Annual/Percentage of Degree Completed	24 semester/36 quarter hours of credit	40%	60%	80%
% of minimum required GPA	90%	95%	100%	100%

An incongruence occurs when a student-athlete enters an institution underprepared and lacks proper academic habits or preparation to succeed at the institution. To mitigate this issue, the NCAA encourages institutions to have support systems in place. NCAA by-law 16.3.1.1 states, “Member institutions shall make general academic counseling and tutoring services available to all student-athletes. . . . In addition, an institution, conference, or the NCAA may finance other academic support, career counseling, or personal development services that support the success of student-athletes” (NCAA, 2014, p. 26). Athletic administrators are charged to financially support these services, athletic coaches are encouraged to mandate their student-athletes participate in academic support structures, and academic support staff are charged with providing academic support to the student-athletes.

Statement of Purpose

The purpose of this study is to examine the impact *propensity to trust* may have on NCAA Division I student-athletes' academic success. College athletic administrators, specifically academic advisors, learning specialists, and other academic support staff, are charged with providing student-athletes with adequate academic support as well as help them maintain academic eligibility by progressing toward graduation. Student-athletes who have a low propensity to trust are more susceptible to heightened stress, fear, and anxiety. As a result, they may be more likely to face consequential actions such as academic dysfunction and loss of eligibility. If academic support staff can identify student-athletes' propensity to trust, they may be able to identify strategies and gain insight that will help them acquire student-athlete trust and provide more effective support. As student-athletes follow the advice of their academic support staff, they will be more likely to improve their academic performance and alleviate stress. In addition, coaches and personnel who identify prospective student-athletes to recruit may be able to identify propensity to trust as a criteria or factor in the recruiting process.

With these considerations, this study explored the following questions:

1. What demographic factors are associated with student-athlete propensity to trust?
2. What educational factors are associated with student-athlete propensity to trust?
3. Does propensity to trust vary among athletic teams?
4. In what ways do educational and demographic variables and propensity to trust predict current academic achievement?

In order to provide conceptual clarity for the above questions, research regarding trust and propensity to trust is more closely examined. Additional clarity regarding trust and propensity to trust in the student-athlete context is then specified.

Trust

Stephen M. R. Covey, author of the New York Times Bestseller *The Speed of Trust*, calls trust “the one thing that changes everything” (2006, p. 1). Though this dramatic claim is used by Covey mainly for the purpose of selling his own book, within the construct of this research, there is a lot of accuracy to his claim. Recent trust research within the social sciences largely began with Morris Rosenberg’s “faith in people” in 1957 (Rosenberg, Suchman, & Goldsen, 1957) and Morton Deutsch’s research in 1958. These authors concluded trust is “the individual’s degree of confidence in the trustworthiness, honesty, goodness, generosity, and brotherliness of the mass of men” (Rosenberg et al., 1957, p. 26) and had “motivational consequences” (Deutsch, 1958, p. 266). Julian B. Rotter, whose trust research in 1967 built upon Rosenberg’s definition of trust as an interpersonal factor, developed an interpersonal trust scale that was widely used for several decades. Rotter defined interpersonal trust as “an expectancy held by an individual or a group that the word, promise, verbal or written statement of another individual or group can be relied upon” (1967, p. 651).

The term “expectancy” led to Lynne Zucker’s definition of expectancy as “a set of expectations shared by all those involved in an exchange” (1986, p. 54). Zucker outlined what she considered to be the two main components of trust: background expectations and constitutive expectations. She defined background expectations as “the common understandings that are taken for granted as part of a world known in common” and characterized this definition with the properties of the “attitude of daily life” and the “reciprocity of perspectives” (Zucker, 1986, p. 57). She described constitutive expectations as “the rules defining the context or situation” and characterized this definition with the properties of “independence from self-interest” and “intersubjective meaning” (Zucker, 1986, p. 58).

In 1993, Sitkin and Roth summarized that “nearly all research has at least implicitly accepted a definition of trust as a belief, attitude, or expectation concerning the likelihood that the actions or outcomes of another individual, group or organization will be acceptable” (p. 368). Sitkin and Roth defined trust as “belief in a person’s competence to perform a specific task under specific circumstances” (1993, p. 373).

One of the most frequently cited definitions of trust in recent decades has been from Mayer, Davis, and Schoorman (1995) who posited “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party” (p. 712). This definition has been a prominent building block in other research (Hoy & Tschannen-Moran, 1999; Mishra, 1996; Rousseau, Sitkin, Burt, & Camerer, 1998; Serva, Fuller, & Mayer, 2005).

One notable variation from Mayer et al.’s definition (1995) was offered by Costa, Roe, and Taillieu (2001), and likewise Tschannen-Moran and Hoy (2000), who conceptualized trust as a multifaceted variable with three distinct but interrelated dimensions: propensity to trust, perceived trustworthiness, and cooperative and monitoring behaviors. In this definition, propensity to trust acts as a dispositional variable. This variance only furthers the need to maintain a distinction between propensity to trust, or an individual’s general willingness to trust others, and actual trust or trusting behaviors (Mayer et al., 1995).

Propensity to Trust

Research has established that propensity to trust moderates the relationship between the antecedent to trust and trust in the trustee (Burke, Sims, Lazzara, & Salas, 2007). Mayer et al. (1995) looked at the ability, benevolence, and integrity, or “factors of perceived trustworthiness,”

as the three main categorical antecedents to trust, and listed “trustor’s propensity” as “a stable within-party factor that will affect the likelihood the party will trust” (p. 715). In his model (see Figure 1), ability, benevolence, and integrity are not considered antecedents to propensity to trust; however, they are listed sequentially prior to it, indicating that propensity to trust influences the relationship between the factors of perceived trustworthiness and trust. Thus, propensity to trust is a moderating factor to the three antecedents to trust. In discussing previous research regarding propensity to trust, the authors state that “propensity should contribute to the explanation of variance in trust if used as a part of a more complete set of variables” (Mayer et al., 1995, p. 716).

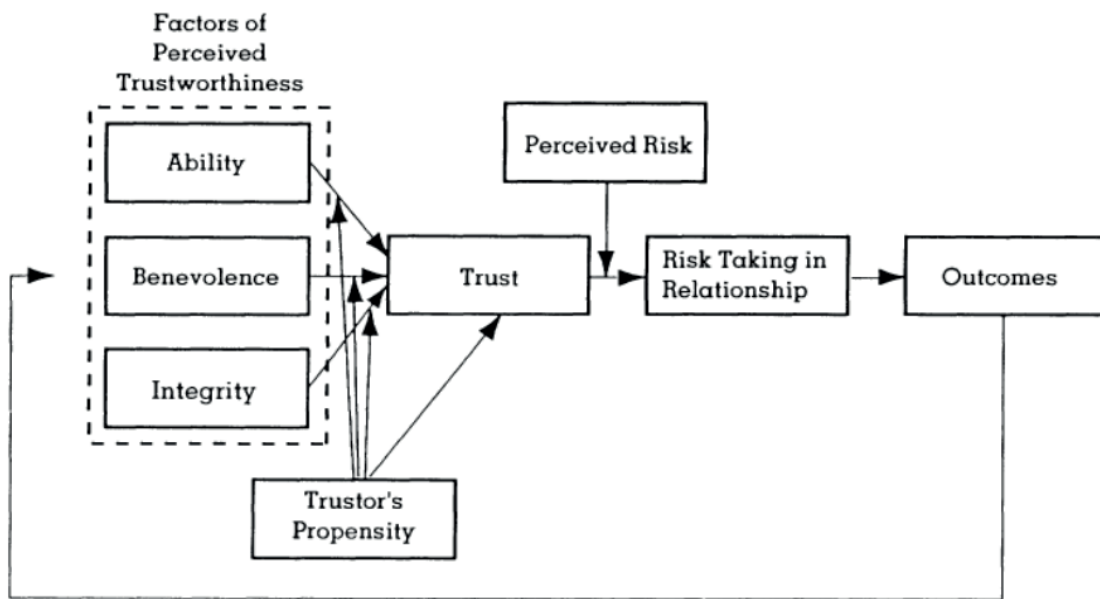


Figure 1. Proposed model of trust. (Mayer et al., 1995)

This study defines *propensity to trust* using the widely cited work by Mayer et al. (1995), which they define as “a general willingness to trust others” (p. 715). Other researchers use similar yet different definitions such as a “capacity to trust” (Hardin, 1993, p. 513). Research suggests that the predisposition to trust or distrust others tends to be correlated with other dispositional orientations, including people’s “beliefs about human nature” (Kramer, 1999, p.

575). The term “disposition to trust” is also cited by other authors (Gill, Boies, Finegan, & McNally, 2005; McKnight, Cummings, & Chervany, 1998; Tschannen-Moran & Hoy, 2000).

Burke et al. (2007) also use the term “predisposition,” but they define propensity to trust as “the general willingness to place faith in others’ reciprocity and good intentions” (p. 619) and “a general tendency to make positive attributions about others’ intentions” (p. 609). Like Hardin (1993), Burke et al. (2007) posit that “an individual’s propensity to trust is developed from previous learned experiences” (p. 619).

McKnight, Choudhury, and Kacmar (2002) referred to propensity to trust as “faith in humanity” and “trusting stance” (p. 340). Trusting stance was defined as “regardless of what one believes about peoples’ attributes, one assumes better outcomes result from dealing with people as though they are well-meaning and reliable” (McKnight et al., 2002, p. 340). McKnight and his colleagues (2002) also theorized that disposition to trust influenced “institution-based trust” and “trusting intentions” (p. 340).

Other terms and definitions related to the construct of propensity to trust include motivation to trust (Williams, 2001), intention to trust (Gill et al., 2005), and risk propensity (Sitkin & Pablo, 1992). *Motivation to trust* was defined by Williams (2001) as “the desire to view another person as trustworthy enough to be relied on” (p. 387). Gill et al. (2005) used the phrase “intention to trust” as a related construct to propensity but distinguished the two in the operational definitions (by using separate scales to measure each). The authors found that “intention to trust” and “propensity to trust” are strongly related but not identical (Gill et al., 2005). Each definition contributes differently to the establishment of trust, and that variance depends on each individual situation. Gill et al. (2005) distinguished “intention to trust by the personal disposition of the trustor” (p. 289), whereas propensity to trust is influenced by trustor’s

ability, benevolence, and integrity (Mayer et al., 1995). Burke et al. (2007) explained that “propensity to trust impacts the information that is salient and how the information is processed when deciding to trust” (p. 619). When propensity to trust is high, it tends to strengthen ones’ belief in the trustworthiness of others.

Trust and Propensity to Trust Research in the Student-Athlete Context

Little research has been done on trust and student-athletes. Further, there is little university-level foundational literature on propensity to trust. This study will help fill a gap in propensity to trust research. However, a great deal of research has been done on organizational trust, and NCAA Division I athletic teams have many organizational attributes. In addition, research has been done on trust in educational settings. Propensity to trust has been researched as part of intragroup trust. Intragroup trust lies at the core of student-athlete relationships with coaches, athletic administrators, and support staff.

Organizational trust. Trust has been linked to a variety of positive work attitudes, such as job satisfaction and organizational commitment, work behaviors, job performance, and citizenship behavior (Aryee, Budhwar, & Chen, 2002; Watson & Papamarcos, 2002). Helliwell and Wang (2010) found a relationship between a climate of trust in the workplace and satisfaction with life. Rotter (1971) indicated those prone to trust others are less likely to engage in deviant behavior. In addition, Rotter (1971) suggested that individuals with a high propensity to trust are more likely to act in a trustworthy manner. Dirks and Ferrin (2002) indicated that trust in leadership is related to job performance, intentions to quit, organizational commitment, and job satisfaction, which all act as essential elements of a successful athletic team.

Importantly, the process by which trust initially forms (propensity to trust) may be different than the processes involved in maintaining trust (Mayer et al., 1995; McKnight et al.,

1998). McKnight et al. (1998) asserted that initial trust between people is based on an individual's disposition to trust, particularly during the first encounter when individuals have not had the opportunity to observe each other's behavior. This opens the possibility that the relation between propensity to trust and intention to trust changes over time. A Division I college athletic team acts much like an organization in that the greater amount of time athletes spend with any part of the athletic organization (e.g., advisors, learning specialists, support staff), the higher potential for intention to trust to change.

Gill et al. (2005) findings support the Mayer et al. 1995 model that perceptions of ability, benevolence, and integrity influenced an individual's intention to trust. Further, propensity to trust correlates with intention to trust when information about trustworthiness is clear (Gill et al., 2005). For example, situational strength, or cues provided by environmental forces regarding potential behaviors, may be an important boundary condition of the relation between propensity to trust and intention to trust (Gill et al., 2005). Meyer, Dalal, and Hermida (2009) define situational strength as a multifaceted construct that includes the clarity of the situational cues from the environment. Therefore, the student-athlete's trust in the organization may be influenced by the situational cues evident in the athletic organization, and this evidence may act as a boundary condition between propensity to trust and intention to trust.

In addition to conditions created within athletic teams, additional variables are created by the demands of time management, social pressures, and the academic rigors of the university. The combination of these variables emphasizes the need for proper support systems to surround student-athletes. The NCAA encourages those supporting student-athletes (e.g., coaches, athletic administrators, support staff) to build relationships of trust with each student-athlete as stated in

the NCAA's student-athlete guidebook *Mind, Body and Sport: Understanding and Supporting Student-Athlete Mental Wellness*:

When student-athletes trust us, they will approach us for anything—especially when they need help. One thing that will help gain trust is by taking the time to really listen—that has allowed me to get to know student-athletes as individuals. The information gained through listening, no matter the topic, is often vital for future conversations. (NCAA, 2014, p. 69)

The complexion of an athletic team can have an impact on the social norms of the individual student-athletes. Within the framework of an athletic team, collectivism represents an individual's belief that collective or group (athletic team) interests should take precedence over individual self-interest (Parsons & Shills, 1951). Thus, collectivism acts as a central cultural value that has influences on social behavior (Triandis, 1989). Collectivists tend to place a high value on group goals, group cohesiveness, and for the purpose of this research, athletic team well-being. Nearly all NCAA student-athletes have grown up in a team environment. Even individual sports such as track and field, cross-country, swimming, and gymnastics have a strong team component, and the success of the team depends on the performance or actions of the individuals.

As such, one can speculate that trusting individuals on an athletic team would value relationships with others, would be more likely to sacrifice personal goals for team goals, and would be more likely to have an overall better athletic experience. Propensity to trust as a relational construct interjects the self in relationship to other individuals and in relationship to organizations or collectivities (Banaji & Prentice, 1994), or in the case of this study, NCAA Division I athletic teams. Ultimately, interorganizational relationships, or shared information

systems among groups, develop and reside within individuals who sustain an interorganizational tie (Dyer & Chu, 2000). These types of relationships potentially influence the organizational trust of each student-athlete.

The Banaji and Prentice research (1994) may apply to athletic teams in that individual student-athletes with a high propensity to trust would value relationships with other team members and enhance the student-athletes' sense of self-worth as a contributing team member. In contrast, student-athletes with a low propensity to trust may not get involved with the team because they would be concerned that others would shirk responsibilities (Jackson & Harkins, 1985; Schnake, 1991). In the case of student-athletes who have a low propensity to trust, they may not develop strong relationships with those charged to provide support and are therefore less likely to acquire skills needed to fulfill the scope of a successful student-athlete.

Trust within an educational framework. There is solid research dedicated to trust in an educational setting, the majority focusing on kindergarten through secondary education. There is very little research on trust in settings of higher education. At the institution where this study was performed, an academic support center exists for student-athletes and acts much like a school within a school. The academic support center provides student-athletes with academic advisors, academic learning specialists, and academic tutors.

The academic advisors provide course counseling and help direct student-athletes into courses that meet major or graduation requirements and help them follow a graduation plan. Learning specialists focus on teaching positive educational behaviors that lead to academic success. These behaviors include attending class, proper note-taking, positive interaction with professors, appropriate levels of engagement in class, and a proper amount of study time devoted to each course, project, assignment, and exam. The role of the learning specialist is similar to a

K-12 teacher assistant. The learning specialists undertake to enhance student learning by providing individual attention to a caseload of student-athletes. Tutors provide content-specific learning through one-on-one instruction outside of class, group reviews for exams, and by adding greater depth to critical course content not offered by the professor. The services provided by the institution in this study act to enhance the experience found in the classroom; they do not act to replace the experience.

Advisors at institutions are well informed about their students. They have formed strong relationships and understand their learning styles, their talents, and when they need help. Advisors are also in a position to gain trust and set attainable academic expectations for students (De Sousa, 2005). Thus, the work of advisors and learning specialists mediates the relationship between trust and academic outcomes for student-athletes.

Similar to trust in a K-12 school, the academic support structure for student-athletes views trust as an essential element in a high-functioning school. Tschannen-Moran, a leading researcher in school trust, states in her research about the interconnectivity of trust in schools: “Trust undergirds cooperative behavior and requires expectations of role relationships and is seen as a vital ingredient in the work of schools” (2014, p. 57). Schools have the expectation that principals, students, and parents will behave in ethical ways (Tschannen-Moran, 2014, p. 57). Student-athletes, academic support staff, coaches, and school athletic administrators at an NCAA Division I athletic program have a similar relational expectation.

While trust is an interdisciplinary topic that has more recently branched into the field of education, there is still limited research done on the student-athlete perspective, and even less at the university level within the United States. This study adds to the research of this specific

population and considers what factors and attributes impact the propensity to trust of student-athletes participating in NCAA Division I college athletics in the United States.

Student-athlete intragroup trust. Intragroup trust refers to trust that takes place between two or more members of the same group. Like many NCAA Division I college athletic departments, there are several intragroup dynamics—between academic support staff, coaches, athletic administrators, individual athletes—within a specific team itself. For example, at the institution where this study was performed, some athletic team members are ethnic minorities and some are not ethnic minorities (non-minority); some team members are members of the church affiliated with the university, and some team members are not. By definition, for trust to exist, two or more parties must be in a relationship that presents vulnerability, in which the parties are also dependent upon each other (Rousseau et al., 1998).

These relationships occur innately in college athletic departments. For example, coaches and student-athletes enter a relationship that creates vulnerability and presents a risk. The student-athlete accepts that a coach makes decisions such as team standing, playing time, practice commitments, health and nutrition expectations, and physical conditioning demands. The coach depends on the student-athlete to meet skill development and performance expectations. On high-profile Division I athletic teams, this relationship is high risk/high reward.

Germane to this study, another important intragroup trust aspect worth explaining is trust that occurs within teams and the perception team members have of those who support them academically. By definition, intragroup trust takes place between two or more individuals of the *same* group. An observation made by the institution where this particular study takes place is that each NCAA team seems to have, or take on, a unique personality. For example, members of

the men's track team have acquired or acquire specific personality traits that are different from members of the football team.

In small group settings, like an athletic team, individuals depend upon each other to achieve task-related outcomes (Champion, Medsker, & Higgs, 1993; Guzzo & Dickson, 1996; Kozlowski & Bell, 2003). Like other organizations, and maybe more so, team relationships present risks and rewards (Wageman, 1995). Risks and rewards come not just from the obvious outcomes such as winning. Other outcomes, like team GPA and team graduation rates, are also tied to the success of the intragroup. When a student-athlete first enters college, they have often only experienced limited interaction with coaches, teammates, and academic support staff. In fact, the first interaction with academic support staff usually occurs during the first week of the semester or term. This experience places student-athletes in an unfamiliar intragroup dynamic. Trust among newly forming groups is fragile. Meyerson, Weick, and Kramer (1996) make this point: "Expectations are high but so are reservations. One foot is in the water, but the other is braced firmly on solid ground" (p. 184). Because these relationships between student-athletes and coaches, student-athletes and teammates, and student-athletes and academic support staff are new, a premium is placed on the actor's propensity to trust—in particular the student-athlete's propensity to trust because their experience in a Division I college athletic program and an institution of higher learning is limited to the number of days, weeks, or years they have been in college. Veteran coaches, administrators, and support staff experience this relationship again and again each new school year; however, for first-year student-athletes, the experience is novel and therefore makes them vulnerable.

In context with this study, Rotter proposed that propensity to trust is highly relevant to a novel trusting relationship where the information available to the actor is based upon their early

life experiences (Rotter, 1967, 1971). Furthermore, Gill et al. (2005) posited that initial propensity to trust will be a significant factor in predicting an actor's intention to trust another party. For the purpose of this study, student-athletes with a high propensity to trust in an intragroup setting generally assume others in the group will act in a trustworthy manner. This point is made by Mayer et al. "trustor's propensity" as "a stable within-party factor that will affect the likelihood the party will trust" (1995, p. 715). Therefore, it is important for those given the charge to care for the academic well-being of a student-athlete to understand that the trusting relationship they are creating is novel and somewhat fragile, and from the trustor's perspective, how they react to this new relationship is based in part upon earlier life experiences (Rotter, 1967, 1971).

Hypotheses

In order to determine the impact *propensity to trust* may have on NCAA Division I student-athletes' academic success, the author examined the demographic and educational attributes correlated with their aggregated Propensity to Trust Scale (PTTS) scores (Frazier, Johnson, & Fainschmidt, 2013) of student-athletes at a large, private NCAA Division I institution in the west. Specifically, the author considered what demographic and educational factors are associated with student-athlete propensity to trust. Does propensity to trust vary among athletic teams? In what ways do educational and demographic variables and propensity to trust predict current academic achievement? From these questions, the following four hypothesis were examined:

1. Student-athletes who are on scholarship and student-athletes who are college transfers will have a higher propensity to trust than student-athletes not on scholarship and who are not college transfers.

2. Propensity to trust will be higher for non-minority, members of the church affiliated with the university, returned missionaries of the church affiliated with the university, male (sex defined as male and female), and married student-athletes than for student-athletes who are minority, not members of the predominant religion, did not serve missions for the predominant religion, female, and are unmarried.
3. Propensity to trust will not vary significantly between the 17 athletic teams on the campus included in this study.
4. Student-athlete propensity to trust will be able to predict, with a high degree of accuracy, current college GPA in comparison to other demographic and educational variables.

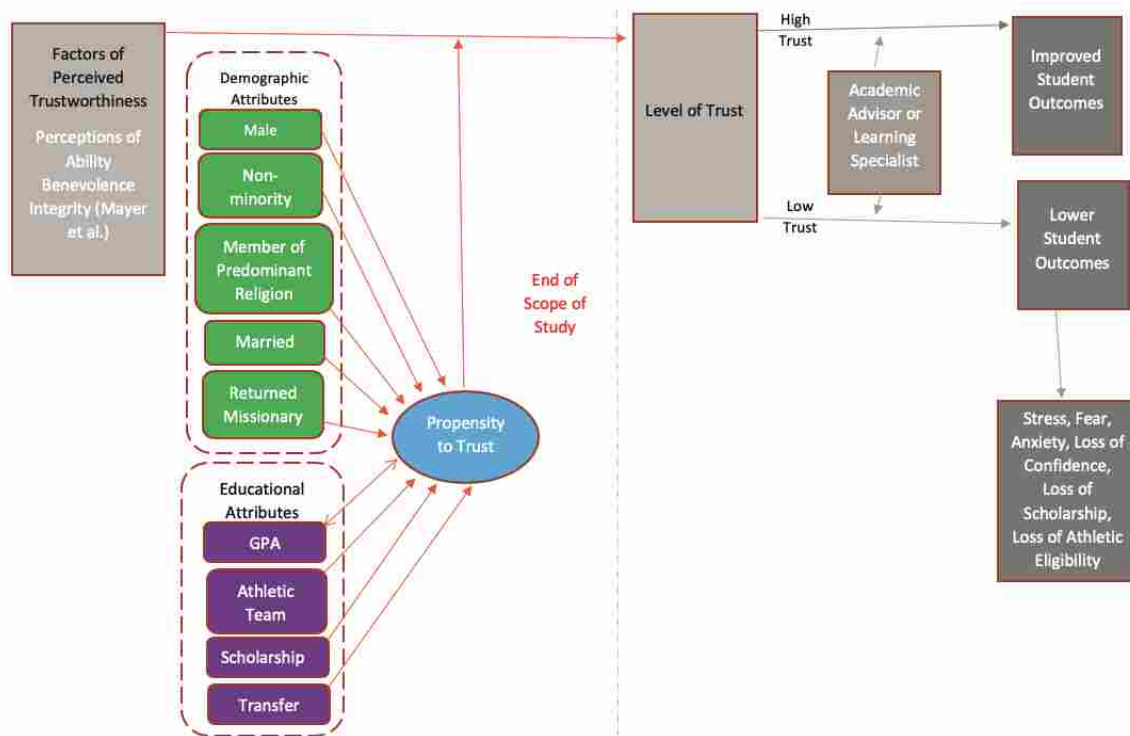


Figure 2. Proposed model of study.

As exhibited in Figure 2, it is hypothesized that demographic and educational variables in the study will explain a variance in propensity to trust. Propensity to trust then moderates the

strength of the relationship between Mayer et al.'s factors (1995) of perceived trustworthiness (ability, benevolence, and integrity) and trust. Germane to the hypotheses in this study is the prediction that "propensity contributes to the explanation of variance in trust if used as a more complete set of variables" (Mayer et al., 1995, p. 716) and that the trustor's propensity acts as a "stable within-party factor that will affect the likelihood the party will trust" (p. 715). The higher level of trust will ultimately yield results that lead to improved student-athlete academic outcomes.

Methods

This research used the validated Propensity to Trust Scale (PTTS) developed by Frazier et al. (2013) to determine the propensity to trust of student-athletes at a large, private university in the western United States. Frazier's scale is accepted among trust researchers as an instrument that clearly measures propensity to trust. In addition, various demographic and educational attributes were investigated to determine their relationship to propensity to trust. Demographic variables including sex (defined as male and female), marital status (defined as married and unmarried), and minority status (defined as minority and non-minority) were chosen as independent variables. To bring clarity, it is important to more distinctly define other demographic variables that are relevant to this study. The acronym "LDS" refers to individuals who belong to The Church of Jesus Christ of Latter-day Saints, which is the religion affiliated with the university. The term "non-LDS" refers to individuals who do not belong to the religion affiliated with the university. Members of The Church of Jesus Christ of Latter-day Saints, particularly young men, are encouraged to serve a full-time mission for the church. An individual who has served a mission for the church is commonly referred to as a *returned missionary*, or RM.

Additionally, this study also examined educational attributes relevant to NCAA Division I college athletics such as athletic team, scholarship status, and transfer status and their relationship to propensity to trust. In NCAA Division I athletics, the term *scholarship* refers to individuals who receive any amount of athletic scholarship for the purpose of covering tuition, books, fees, housing, meals, or other costs related to attendance. For the purpose of this study, even if a student-athlete received financial aid outside of athletics, such as federal grants or non-athletic merit-based scholarships, they are categorized as *non-scholarship*. In this study, the term *transfer* is used to describe an NCAA Division I student-athlete who participated on a college athletic team at a previous institution of higher learning. *Non-transfer* refers to a student-athlete who came to the studied institution directly out of high school.

Sampling and Data Collection

The target population for this study was all NCAA Division I student-athletes at the institution where the study took place. The sampling frame included all of the student-athletes contained in the institution's enrollment database software. All NCAA Division I student-athletes are "flagged" in the university's database. A total of 477 student-athletes were in the database at the time the study was performed. Fourteen student-athletes under the age of 18, which required parental consent to participate, were excluded from this study, which left 463 possible respondents. Possible respondents were contacted through email and invited to participate in the study. Of the 463 possible respondents, 221 surveys were returned, representing a 47.7% response rate. The 221 participants who responded are broken down by demographic and educational factors in Table 2 with statistical numerical data in Table 3. Each participant signed a consent form, which indicated the demographics that would be obtained and

used for the study. In addition, the university where the study was conducted, gave explicit written permission to the principal investigator to use the information for this study.

Table 2

Statistical Data From Sample

Demographic factors	<i>N</i>	%
Male	104	47.0
LDS	183	82.8
Married	48	21.7
Minority	56	25.3
Returned Missionary	79	35.7
Educational factors	<i>N</i>	%
Scholarship	131	59.2
Non-Scholarship	90	40.7
Transfer	15	6.7
Non-Transfer	206	93.2
Men's Golf	2	.9
Baseball	5	2.2
Men's Football	44	19.9
Men's Basketball	4	1.8
Men's Swim	11	4.9
Men's Tennis	3	1.3
Men's Volleyball	9	4
Men's Track	26	11.7
Women's Softball	8	3.6
Women's Basketball	6	2.7
Women's Swim/Dive	17	7.6
Women's Golf	6	2.7
Women's Soccer	13	5.8
Women's Tennis	7	3.1
Women's Track	25	11.3
Women's Volleyball	6	2.7
Women's Gymnastics	28	12.6

Table 3

Statistical Numerical Data From Sample

Continuous/Numerical Variables	Mean	SD	Min	Max
ACT	24.29	4.31	16	34
Current GPA	3.31	.55	1.46	4.0
Age	20.57	2.24	18	27
PTT	14.72	3.59	6	20

Propensity to trust was then measured using the Propensity to Trust Scale (PTTS), which was developed by Frazier and colleagues by synthesizing the many non-validated scales already in use in the field (Frazier et al., 2013) and adding three of their own. The final validated survey represents propensity to trust with a 5-point Likert scale that ranges from 1, strongly disagree, to 5, strongly agree. The result of the synthesized questions gives a final propensity to trust score. The survey consisted of the following four questions:

1. "I usually trust people until they give me a reason not to trust them."
2. "Trusting another person is not difficult for me."
3. "My typical approach is to trust new acquaintances until they prove I should not trust them."
4. "My tendency to trust others is high."

By obtaining the network identification of each subject, and with the consent of the participants, the principal investigator was able to legally access the remaining data needed to complete the study, including high school GPA, current college GPA, ACT score and student sex, as well as whether the student-athlete was a minority, member of the church affiliated with the university, a scholarship recipient, a returned missionary of the church affiliated with the university, married, or a transfer student.

Data Analysis

Student-athlete propensity to trust was established by aggregate scores on the PTTS questions. Aggregate scores have a range between 4 (lowest possible aggregate score) and 20 (highest possible aggregate score). Descriptive statistics were then run for each variable. The Chronbach's alpha value for the set of questions for the propensity to trust construct as found by Frazier et al. is $\alpha = 0.89$. For the data examined in this study, Chronbach's alpha value is $\alpha = 0.88$, which signifies a high level of internal consistency between Frazier's four questions. Thus, the questions appear to accurately measure the construct of PTT.

An ANOVA test was used to compare PTT by each athletic team. For the post-hoc comparisons, Fisher's Least Significant Differences (LSD) test (Fisher, 1935) was used to identify significant differences between individual athletic teams. For example, in this study, when comparing differences in PTT between athletic teams, the post hoc test took every pair of groups (teams) and performed a t-test on each pair or team. Independent samples t-tests were used to identify differences in PTT means by student sex, LDS status, returned missionary status, transfer status, scholarship status, marriage status, and minority status. Regression tests (see Table 7) were then used to examine the influence of GPA on PTT, controlling for other demographic and educational variables.

Findings

Scholarship and Transfer Status

Hypothesis 1 predicted student-athletes who are on scholarship and student-athletes who are college transfers would have a higher propensity to trust than student-athletes who are not on scholarship and who are not college transfers.

Table 4 shows the descriptive data by scholarship status, demonstrating that those on scholarship had a slightly lower PTT score (14.45) than those not on scholarship (15.11), with a difference of 0.66. The difference refers to the mean PTT aggregate score from the PTTS scale (Frazier et al., 2013). Thus, the prediction in Hypothesis 1 that student-athletes on scholarship will have a higher propensity to trust than those who are not on scholarship was not supported.

Table 4

PTT by Scholarship (Not on Scholarship vs On Scholarship), T-Test

	N	Mean	Std. Deviation	Std. Error Mean
Not on Scholar	90	15.11	3.546	.374
On Scholarship	131	14.45	3.615	.316

Table 5

PTT by Scholarship, Independent Samples Test

T-test for equality of means					95% conf. interval of difference	
T	df	Sig. (2-tailed)	Mean difference	Std. Error difference	Lower	Upper
1.346	219	.180	.661	.491	-.307	1.629

To determine the second part of Hypothesis 1, two different tests were examined. The first test was a t-test, which compared the PTT of transfer student-athletes and non-transfer student-athletes (see Table 6). Transfer student-athletes had a mean PTT score of 15.21 and non-transfer student-athletes had a mean PTT score of 14.69, indicating the results were not significant. The second was a regression test (see Table 7) that held PTT as the dependent variable. With all listed variables being held constant, being a transfer student increased PTT by 3.58 points ($p = .002$), indicating the results were significant. The findings in the t-test (not significant) and the regression analysis (significant) appear to provide conflicting results. In this

case, the authors place more trust in the results of the regression analysis, given the regression controls for all of the observed variables, while the t-test does not. Thus, the prediction in Hypothesis 1 that transfer student-athletes would have a higher propensity to trust than non-transfer student-athletes was supported.

Table 6

PTT by Transfer (Not a Transfer vs Transfer), T-Test

	N	Mean	Std. Deviation	Std. Error Mean
Transfer	14	15.21	4.318	1.154
Not a Transfer	207	14.69	3.549	.247

Table 7

PTT Coefficients

Variable	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95% conf. interval for B	
	B	Std. Error	Beta			Lower	Upper
(Constant)	3.749	4.839		.775	.439	-5.792	13.290
Age	.231	.214	.147	1.081	.281	-.191	.653
HS GPA	-.108	.809	-.011	-.133	.894	-1.702	1.487
GPA	1.394	.527	.216	2.643	.009	.354	2.434
ACT	.039	.059	.047	.656	.513	-.078	.156
Minority	-1.69	.577	-.207	-2.927	.004	-2.828	-.551
LDS	1.391	.734	.144	1.895	.059	-.056	2.838
Scholarship	.146	.484	.020	.303	.763	-.808	1.101
Return Missionary	1.79	.707	.244	2.532	.012	.396	3.184
Year in School	-.321	.312	-.119	-1.031	.304	-.936	.293
Married	-1.129	.648	-.134	-1.742	.083	-2.407	.149
Native Language	.783	1.156	.045	.677	.499	-1.497	3.063
Transfer Student	3.578	1.163	.204	3.077	.002	1.285	5.871
Sex	.869	.594	.123	1.463	.145	-.302	2.040

Note. Dependent variable is PTT (propensity to trust). Age, year in school, and native language are variables gathered in the data sample but not examined further in this study.

Minority, LDS, Missionary Status, Marital Status, and Sex

Hypothesis 2 predicted non-minority, members of the church affiliated with the university, student-athletes who were returned missionaries, male, and married would have a higher propensity to trust than student-athletes who were minority, not members of the church affiliated with the university, did not serve missions for the church affiliated with the university, female, and were unmarried.

For the first variable tested in Hypothesis 2, statistical findings (see Table 8), assessed through a t-test, demonstrated minority student-athletes had a mean PTT score of 12.96, which was significantly lower ($p < .001$, Table 9) on the PTT scale than non-minority student-athletes, who exhibited a mean score of 15.32. The disparity between minority and non-minority student-athletes was the second highest among all paired groups in this study. The standardized difference between the two groups (Cohen's $d = .64$) constitutes a moderate to large difference in means between minority and non-minority students.

Table 8

PTT by Minority (Minority vs Not Minority), T-Test

	N	Mean	Std. Deviation	Std. Error Mean
Not a minority	165	15.32	3.232	.252
Minority	56	12.96	4.036	.539

Table 9

PTT by Minority, Independent Samples Test

		T-test for equality of means			95% conf. interval of difference	
t	df	Sig. (2-tailed)	Mean difference	Std. Error difference	Lower	Upper
4.404	219	.000	2.351	.534	1.299	3.403

Further confirmation occurs in data revealed in Table 7, where PTT is the dependent variable. When all listed variables were held constant, being a minority decreased PTT by 1.69 points. Therefore, the prediction in Hypothesis 2 that being a non-minority student-athlete will increase PTT was supported.

The next variable assessed in Hypothesis 2 was performed by using both a t-test and a regression analyses. According to the t-test, statistical data observed (see Table 10) shows that

student-athletes who are members of the church affiliated with the university (LDS) have a mean PTT score of 15.20, which is a significantly higher mean PTT than student-athletes who are not members of the predominant religion (non-LDS), who demonstrated a mean PTT score of 12.39 ($p < .001$, Table 11), with a difference of 2.81 (largest difference) and large standardized difference (Cohens's $d = .79$). Moreover, the 12.39 mean PTT score for student-athletes who are not members of the predominant religion was the lowest of any demographic variable in this study.

Table 10

PTT by Religion (LDS vs. Not LDS), T-Test

	N	Mean	Std. Deviation	Std. Error Mean
Not LDS	38	12.39	3.680	.597
LDS	183	15.20	3.390	.251

Table 11

PTT by Religion, Independent Samples Test

		T-test for equality of means			95% conf. interval of difference	
t	df	Sig. (2-tailed)	Mean difference	Std. Error difference	Lower	Upper
-4.577	219	.000	-2.807	.613	-4.016	-1.599

Additionally, data assessed in Table 7 validated the t-test finding that student-athletes who are members of the church affiliated with the university have a higher propensity to trust than student-athletes who are not members of the church affiliated with the university. When PTT is the dependent variable and all listed variables are held constant, being a student-athlete who is a member of the church affiliated with the university increased PTT by 1.39 points. Thus, the prediction in Hypothesis 2 that student-athletes who are a member of the church affiliated

with the university will have a higher propensity to trust than those who are not members of the church affiliated with the university was supported.

The next variable assessed in Hypothesis 2 was also done by performing both a t-test and a regression test. The t-test results in Table 12 show that student-athletes who are returned missionaries (RM) have a mean PTT score of 15.91, which was the highest PTT of any demographic identified in the study. The comparison between returned missionaries (15.91) and those who are not returned missionaries (14.06, $p < .001$, Table 13) demonstrate a mean difference of 1.85 with a medium effect size correlation (Cohen's $d = .54$).

Table 12

PTT by Missionary Service (Not a Returned Missionary vs. Returned Missionary), T-Test

	N	Mean	Std. Deviation	Std. Error Mean
Not an RM	142	14.06	3.730	.313
RM	79	15.91	3.005	.338

Table 13

PTT by Missionary Service, Independent Samples Test

		T-test for equality of means			95% conf. interval of difference	
T	df	Sig. (2-tailed)	Mean difference	Std. Error difference	Lower	Upper
-3.788	219	.000	-1.855	.490	-2.820	-.890

Furthermore, where PTT is the dependent variable (see Table 7), all listed variables being held constant, being a returned missionary increases PTT by 1.79 points. Thus, the prediction in Hypothesis 2 that being a returned missionary increases PTT, was supported.

To assess the last two variables stated in Hypothesis 2, a t-test was used for determining difference in sex (male and female) and both a t-test and regression for married and non-married student-athletes. The mean PTT score for male student-athletes was 14.57 and the mean PTT

score for female student-athletes was 14.85. The difference between male PTT and female PTT was not significant ($p = .55$). Thus, the prediction in Hypothesis 2 that being a male student-athlete increases propensity to trust was not supported.

The mean PTT score for married student-athletes was 14.67 and 14.73 for non-married student-athletes. The difference between the two groups is not significant ($p = .90$). Statistical data (see Table 7) confirms this finding and reveals additional insight: with PTT as the dependent variable, for every 1-point increase in PTT, married student-athletes showed a *decrease* of 1.12 points. Thus, it is possible that being a married student-athlete decreases propensity to trust. The prediction in Hypothesis 2 that being married would increase propensity to trust was not supported.

PTT Variation Among Teams

Hypothesis 3 predicted there would not be a significant variation in propensity to trust between the 17 athletic teams on campus that were included in this study. Statistical data (see Table 14) demonstrates the difference in PTT between teams. The results show that two teams, football and softball, demonstrated a statistically significant difference in mean PTT scores. None of the other teams in the study showed significant differences with any team other than football and softball. For example, football players, as a team, scored 3.43 points lower PTT than men's basketball. Softball, on average, had the lowest mean PTT score and had a statistically significant lower PTT score than each of the other teams, including 6.0 lower than men's basketball and 4.82 lower than (women's) gymnastics.

Thus, Hypothesis 3 was not supported. Some of the 17 athletic teams examined in this study did, in fact, have a variation in propensity to trust scores.

Table 14

PTT Team Differences

(I) Team	(J) Team	Mean Difference (I-J)	Std. Error	Sig.	95% confidence interval	
					Lower Bound	Upper Bound
Football	Men's Golf	-1.932	1.829	.292	-5.54	1.68
	Baseball	-2.182	1.829	.234	-5.79	1.43
	Gymnastics	-2.253	.847	.008	-3.92	-.58
	Men's Basketball	-3.432	1.829	.062	-7.04	.18
	Men's Swim	-2.045	1.181	.085	-4.37	.28
	Men's Tennis	-2.348	2.090	.263	-6.47	1.77
	Men's Volleyball	-1.460	1.282	.256	-3.99	1.07
	Men's Track	-2.297	.867	.009	-4.01	-.59
	Softball	2.568	1.346	.058	-.09	5.22
	Women's Basketball	-1.682	1.525	.271	-4.69	1.32
	Women's Swim/Dive	-2.329	1.000	.021	-4.30	-.36
	Women's Golf	.152	1.525	.921	-2.85	3.16
	Women's Soccer	-2.374	1.106	.033	-4.55	-.19
	Women's Tennis	-.253	1.425	.859	-3.06	2.56
	Women's Track	-1.182	.877	.037	-3.57	-.11
	Women's Volleyball	-1.182	1.525	.439	-4.19	1.82
	Softball	Men's Golf	-4.50	2.145	.037	-8.73
Baseball		-4.75	2.145	.028	-8.98	-.52
Football		-2.568	1.346	.058	-5.22	.09
Gymnastics		-4.821	1.404	.001	-7.59	-2.05
Men's Basketball		-6.00	2.145	.006	-10.23	-1.77
Men's Swim		-4.614	1.628	.005	-7.82	-1.40
Men's Tennis		-4.917	2.372	.039	-9.59	-.24
Men's Volleyball		-4.028	1.702	.019	-7.38	-.67
Men's Track		-4.865	1.416	.001	-7.66	-2.07
Women's Basketball		-4.250	1.892	.026	-7.98	-.52
Women's Swim/Dive		-4.897	1.502	.001	-7.86	-1.94
Women's Golf		-2.417	1.892	.203	-6.15	1.31
Women's Soccer		-4.942	1.574	.002	-8.05	-1.84
Women's Tennis		-2.821	1.813	.121	-6.40	.75
Women's Track		-4.410	1.423	.002	-7.22	-1.60
Women's Volleyball		-3.750	1.892	.049	-7.48	-.02

GPA

Hypothesis 4 predicted, as a variable, propensity to trust will be able to predict, with a high degree of accuracy, current college GPA controlling for other demographic and educational variables. The ANOVA and post-hoc tests were used to test this hypothesis.

In Table 15, PTT was used as the dependent variable. In this model, the independent variables (GPA plus a set of demographic control variables) significantly predicted PTT ($p < .001$), accounting for 26% of the variation in the outcome ($R^2 = 0.26$). Four variables (see Table 7) were significant predictors of PTT: GPA, LDS, returned missionary, and transfer status (in the more rigorous independent samples test). The coefficient for GPA is 1.39; thus, holding all other variables constant, every 1-point increase in GPA resulted in a 1.39 increase in propensity to trust (B column). This 1.39 increase in PTT was the third highest coefficient of all variables, behind transfer student (3.57) and returned missionary (1.79) and ahead of LDS (1.39).

Table 15

PTT Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.510 ^a	.260	.212	3.140

Note. ^a indicates predictors: (constant), sex, native language, transfer student, scholarship, married, ACT, minority, GPA, LDS, year in school, HS GPA, return missionary, and age.

In Table 16, using current GPA as the dependent variable, R-square was determined to account for .46, or 46%, of the variation. In relation to Table 16, the significance (sig.) of the ANOVA regression model was $p < .000$, indicating results met the threshold of significance ($p < .05$). Of all the significant variables in Table 17, propensity to trust had a significance level of .009, slightly higher than the significance level high school GPA (.000) and slightly lower than the significance level of ACT score (.010). For the purpose of testing Hypothesis 4, when the results of Table 7, which found for every 1-point increase in current GPA there is a 1.39

increase in PTT, are combined with the results of Table 17, which found PTT was second most significant of all the variables tested, we found a significant relationship between PTT and current GPA. Therefore, controlling for a wide set of student-athlete demographic characteristics, propensity to trust was found to predict current college GPA; thus, Hypothesis 4 was supported.

Table 16

GPA Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.679 ^a	.462	.426	.41473

Note. ^a indicates predictors: (constant), PTT, sex, native language, transfer student, scholarship, married, ACT, minority, LDS, year in school, HS GPA, Return Missionary, and age.

Table 17

GPA Regression Coefficients

Variable	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95% conf. interval for B	
	B	Std. Error	Beta			Lower	Upper
(Constant)	.808	.638		1.267	.207	-.450	2.065
Age	-.027	.028	-.111	-.952	.342	-.083	.029
HS GPA	.676	.095	.458	7.077	.000	.487	.864
ACT	.020	.008	.157	2.587	.010	.005	.035
Minority	-.091	.078	-.072	-1.175	.241	-.244	.062
LDS	-.127	.097	-.085	-1.307	.193	-.319	.065
Scholarship	.025	.064	.022	.387	.699	-.101	.151
RM	-.039	.095	-.034	-.408	.684	-.226	.148
Year in School	-.052	.041	-.124	-1.255	.211	-.133	.029
Married	.076	.086	.058	.887	.376	-.093	.246
Native Lang.	.063	.153	.023	.413	.680	-.238	.365
Transfer Student	-.306	.156	-.113	-1.966	.051	-.613	.001
Sex	.019	.079	.018	.247	.805	-.136	.175
PTT	.024	.009	.157	2.643	.009	.006	.042

Note. Dependent variable is GPA. Age, year in school, and native language, are variables gathered in the data sample but not examined further in this study.

Discussion

This research helps clarify what variables may indicate low propensity to trust and what variables may influence a high level of propensity to trust (See Figure 3). Specifically, the control variables studied in this research (non-minority, members of the religion affiliated with the institution, returned missionary, and transfer student) predicted a higher propensity to trust. In addition, this research discovered that other control variables (sex, scholarship, and marital status) did not predict a higher propensity to trust.

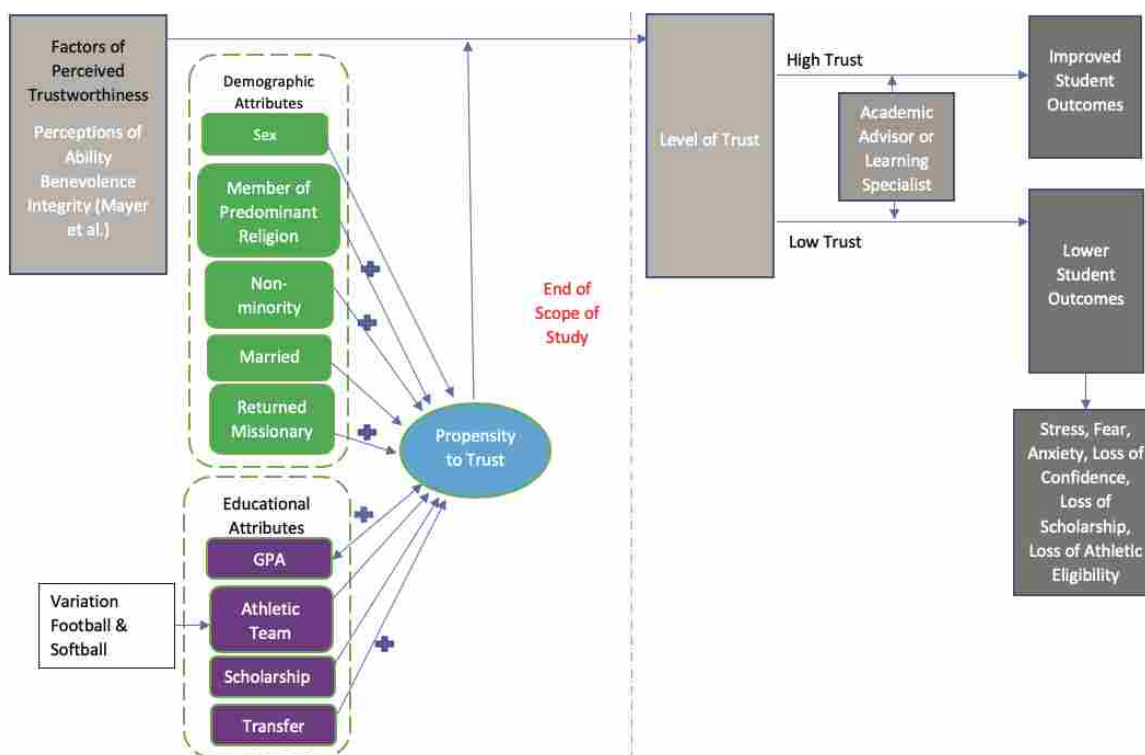


Figure 3. Attributes from current study found to affect PTT. The + symbol indicates control variables that demonstrated higher PTT.

Most of the 17 athletic teams studied did not show a significant variation in propensity to trust, with the exceptions of softball and football. Propensity to trust was able to predict with a high level of accuracy the current GPA of student-athletes. Certainly, further study is needed to better clarify the differences in each of these variables; however, understanding any differences in propensity to trust among NCAA Division I student-athletes will increase the capacity and understanding of advisors and learning specialist, which will better inform them when they provide academic support.

A few of the significant findings deserve further discussion. These findings include the significant difference in PTT between student-athletes who are members of the predominant religion and student-athletes who are not members of the predominant religion and who are

returned missionaries and non-returned missionaries, the lack of a relationship between PTT and sex, and PTT and the relationship to current GPA.

PTT and LDS and Returned Missionary

The outcome of Hypothesis 2 was somewhat expected as The Church of Jesus Christ of Latter-day Saints (LDS) is the predominant religion affiliated with the university in this research. Similarly, the additional information that returned missionaries have a higher propensity to trust than non-returned missionaries was predicted. A partial explanation of this outcome is that all returned missionaries in this study were also current members of the religion affiliated with the university.

Studies performed by Mayer et al. (1995) stated intention to trust is influenced by perceived characteristics of the trustee and predisposition of the trustor. In addition, Mayer et al. (1995) found that perceived ability, benevolence, and integrity of the trustee predicted an individual's intention to trust. With LDS being the church affiliated with institution studied, the "perceived characteristics" and "predisposition of the trustor" may already be secured since most members of the religion affiliated with the university have had regular past exposure to other members of the religion affiliated with the university. In this case the church affiliated with the university acts as a mechanism that creates institution-based trust. Members affiliated with the institution may assign characteristics of benevolence and integrity to those at the institution based on established experiences with other members of the religion affiliated with the university. Trust is an essential component in the theology of the religion affiliated with the university; therefore, those who are members of the religion most likely have personal experiences of perceived ability, benevolence, and integrity with other trustees (Mayer et al., 1995) allowing the trustor to more readily recognize trust patterns or characteristics. Thus,

affiliated religion acts as an institution that increases trust based on guarantees and recommendations from third parties (Zucker, 1986).

The opposite of this may also be true for student-athletes who are not members of the religion affiliated with the university. They may be more likely to assign negative characteristics based on a lack of experience with the religion affiliated with the university. In a more general sense, it is possible that those student-athletes who participated in the study who were not members of the religion affiliated with the university, were not involved in religion at all. Thus, those participants may not be able to recognize trust patterns that exist if they were devoted to some type of religion. Further, PTT correlated with intention to trust when information about trustworthiness was clear (Gill et al., 2005). Student-athletes who are not members of the religion affiliated with the university may not have clear information about the institution that student-athletes who are members of the religion affiliated with the university have. Situational strength, in this case, may be an important boundary condition of the relation between propensity to trust and intention to trust. Gill et al. (2005) indicated the notion of strong and weak situations is used to argue that situational strength is a boundary condition for the relation between propensity to trust and intention to trust. For student-athletes who are members of the religion affiliated with the university, the situation may feel strong, whereas for those who are not members of the religion affiliated with the university, the situation may feel weak.

In regard to returned missionaries, a returned missionary that has recently spent 18 to 24 months serving a church mission may have propensity to trust that is even further enhanced by strong situations. Upon returning from an LDS mission, returned missionaries have spent the past 18 to 24 months with several different companions (LDS missionaries are required to be with a “companion” at all times during the mission). They also spend a great deal of their time

interacting with strangers on the streets or in the homes of outsiders. Many returned missionaries serve in a foreign country. All returned missionaries are subject to unfamiliar cultures and customs while serving. Each of these situations places the trustor (missionary) in vulnerable positions where they are forced to trust others. Much of this trust is based on the returned missionaries' strong religious beliefs and values, thus cementing a strong predisposition of trust in the trustor. As a result, experience in the mission field reinforces current perceptions of trust. The experiences of a returned missionary bring us to Mayer et al. (1995), who stated intention to trust is influenced by perceived characteristics of the trustee and predisposition of the trustor. Interestingly, returned missionaries had the highest mean PTT (15.91) among all studied groups including non-minority (15.32) and LDS (15.20).

PTT and Sex

Propensity to trust and sex was an unexpected finding given vulnerability of females to imposition or abuse (Buchan, Croson, & Solnick, 2008; Maccoby & Jacklin, 1974) on college campuses. Conventional wisdom would indicate females would be less likely to trust than males. However, females who are competing at the NCAA Division I level have most likely already overcome gender stereotypes. Through athletics, females may have more trust-building experiences within an intragroup than non-student-athletes. As a result of these experiences, they have already made themselves vulnerable to, and overcome, stereotypes. As with PTT and members of the religion affiliated with the university, propensity to trust correlates with intention to trust when information about trustworthiness is clear (Gill et al., 2005). In the case of student-athletes, the information available to most males and females may be equally clear.

Additionally, the similar levels of propensity to trust with males and females may be explained by the possibility that being a member of the religion affiliated with the university may

act as a moderating variable in PTT differences between males and females in this study. To reinforce this point, 183 of the 221 participants in the study were members of the religion affiliated with the university. Further research would be needed to determine other possible explanations.

PTT and GPA

The explanation for the relationship between PTT and current GPA (Hypothesis 4) may be most simply described by Rotter (1971): Individuals with a high propensity to trust are more likely to act in a trustworthy manner. Academic achievement, as measured by GPA, may be a measure demonstrating that high propensity to trust results in students who are more likely to attend class, take notes, study for exams, receive help from academic support, and generally behave in a way student-athletes are expected to behave.

Rotter posited that trusting others can be believed is an important element in human learning (1967). Goddard, Tschannen-Moran, and Hoy (2001) quote Rotter (1967) who further explained: “Much of the formal and informal learning that human beings acquire is based on the verbal and written statements of others, and what they learn must be significantly affected by the degree to which they believe their informants without independent evidence” (p. 651). Goddard et al. (2001) also asserted, “Trusting relationships make an important contribution to students’ academic achievement.” They found that “after accounting for the effects of student characteristics . . . Trust is a positive predictor of the variance in student achievement among schools” (p. 14). Though Goddard et al. (2001) attributed these findings to elementary students in an urban setting, one can presume that university student-athletes who have a high propensity to trust will feel less vulnerable than student-athletes with low propensity to trust, when it comes to trusting learning specialists, coaches, teammates, and support staff. As a result, the student-

athlete with high propensity to trust will spend less time and energy trying to protect themselves, and will be more likely to ask questions, collaborate, and generally feel efficacious, believing they can achieve rather than be vulnerable to failure.

Another explanation for the relationship between propensity to trust and current GPA is contained in research that indicates the link between trust and a variety of positive work attitudes, such as job satisfaction and organizational commitment, work behaviors, job performance, and citizenship behavior (e.g., Aryee et al., 2002; Watson & Papamarcos, 2002). Student-athletes, in many cases, see themselves first as an athlete and second as a student, or *athlete-student*. When viewed this way, school achievements, such as GPA, become more closely related to those expected in organizational commitment. Continuing eligibility is highly prescribed by the NCAA (see Table 1) and the right to compete in a sport may be more likely viewed by NCAA Division I student-athletes as a condition of employment. When viewed through the “athlete-student” lens, the practical application of current GPA becomes more of an organizational trust variable than an educational one.

Practical Implications

This study has multiple practical implications. First, this research validates the complexity of NCAA Division I college athletics and the NCAA’s ability to maintain integrity in referring to its participants as *student-athletes*. Many institutions, including the institution where this study was conducted, use athletic skill as a criterion for admission consideration. In such cases, student-athletes may have lower academic scores and, in some cases, may not be fully prepared for the rigor of a college education. The NCAA understands this and has encouraged institutions to have support systems in place to assist student-athletes. Each student-athlete is an individual and requires individual support—particularly academic support. Understanding how

propensity to trust influences different individuals and groups may lead to more effective academic support. Academic support personnel would benefit from working initially to build trust by finding ways to show their benevolence, reliability, competence, and honesty (Hoy & Tschannen-Moran, 1999).

Second, universities that employ academic advisors and/or learning specialists can use propensity to trust research as an indicator of Lynne Zucker's (1986) definition of "trust as a set of expectations shared by all those involved in an exchange" including both "broad social rules" and "legitimately activated processes" (p. 54). Advisors and learning specialists play a significant role in the exchange. Additionally, this research will help academic support personnel better understand student-athletes' motivation to trust (Williams, 2001), or intention to trust (Gill et al., 2005). Specifically, when advisors and learning specialists have a firm understanding of student-athlete propensity to trust, they are in a better position to influence student-athlete motivation to trust. If advisors and learning specialists can influence the student-athletes' "desire to view another person as trustworthy enough to be relied on" (Williams, 2001, p. 387), student-athletes are more likely to realize positive academic outcomes. Building interdependent trust between academic advisors and learning specialists acts as a way of reducing uncertainty (Holmes & Rempel, 1989; Luhmann, 1979), which paves the pathway to higher student-athlete trust. Part of reducing uncertainty is the willingness of the academic advisor or learning specialist to demand high academic expectations. Higher expectations result in higher levels of trustworthiness and act as a way to not only influence the current well-being of the student-athlete, but their future academic potential as well (Tschannen-Moran & Hoy, 2000).

Furthermore, understanding how to develop trust with student-athletes who have low propensity to trust will be a benefit to an NCAA Division I institution, which must blend both competitive and cooperative environments. Coaches, and often college athletic administrators, are charged with winning games, and the academic support personnel are expected to provide student-athletes with academic support. One correlation made in this study, relating to propensity to trust and competition was with football: In 2017, when this study was conducted, football had the lowest mean PTT score of all men's teams (see Table 14). In that particular season (2017), the football team had 4 wins compared to 9 losses. It was the first losing season the team experienced in 13 seasons. This study did not focus on the relationship between competition and propensity to trust; however, further studies may examine the relationship using this data.

Whereas coaches and administrators work consistently in a *competitive* environment, academic support staff work in a *cooperative* environment. Athletic competition produces a winner and losers; academic success maintains steady effort toward an ultimate goal all student-athletes can achieve: graduation. Leaders who are able to garner a sense of trust from their people are more likely to achieve better results regardless if the environment is cooperative or competitive. Thus, higher propensity to trust can assist in both settings.

This research also suggests that a propensity to trust measure may be useful when recruiting prospective college student-athletes. If higher propensity to trust is related to higher GPA, then it is reasonable to suggest that a university that uses higher PTT as an assessment tool in recruiting student-athletes will have fewer academic eligibility issues, fewer dropouts, and overall more successful students. Coaches who use PTT as an assessment tool in recruiting will benefit from having an additional layer of information that can be used when determining

athletic scholarship commitments. Conlon and Mayer (1994) found the willingness to trust was significantly related to the behavior and performance of persons working in an agency simulation. Dirks and Ferrin (2002) specified that trust in leadership is related to job performance, intentions to quit, organizational commitment, and job satisfaction, which all act as essential elements of a successful athletic team, which would be critical knowledge for coaches when calculating the risks and rewards of a student-athlete's potential.

Finally, this study can be used to understand trends that occur in other educational environments. Though it does appear student-athletes have a unique set of competing interests, such as academics balanced with their sport, other university students face similar competing interests such as academics and work, academics and social experiences, or academics and family responsibilities. This research should not only be narrowly applied to NCAA Division I student-athletes.

Limitations

The most significant limitation with this study was that it was conducted at one large private university owned and administered by an international church. As a result, a high majority of the subjects participating in this study belonged to the religion affiliated with the university. Few institutions of higher learning have such an imbalance of participants. This imbalance may skew some of the results. Particularly, there may be unknown factors that affected participants' answers to the PTTS questions developed by Frazier et al. (2013). A more traditional institution may be used for future studies regarding propensity to trust and NCAA Division I student-athletes.

Another limitation to this study could be found in grouping variables. Specifically, religion is defined as members of the religion affiliated with the university and those who are not

members of the religion affiliated with the university; minority is defined as minority and non-minority. These variables could be further disaggregated, which would provide additional insights in understanding various prevalent groups on a college campus.

Finally, another limitation may be a single assessment of propensity to trust is assumed in this study to be a stable valuation over a period of time. It is possible that individual propensity to trust can change over time. Thus, a longitudinal study of propensity to trust performed on the same subjects may provide additional insights.

Conclusions

Discovering methods to help support NCAA Division I student-athletes is increasingly challenging. The dichotomy that exists between NCAA competition and NCAA academics will only prove more challenging in the future. If coaches, administrators, learning specialists, and advisors can take a holistic approach to supporting student-athletes, the NCAA can maintain a successful relationship between athletic competition and academic achievement.

Overall performance of most NCAA Division I athletic programs, and specifically the institution where this study was performed, is defined by three major outcomes. The first is by competitive outcomes such as winning games, matches, rivalries, and championships. The second is the perceived character or citizenship of its student-athletes. The third is the academic achievements, defined by GPA and graduation rates, of the student-athletes. Since this study does not examine wins and losses or overall citizenship, the results mainly apply to those charged with helping student-athletes achieve academic success. Like other institutions affiliated with the NCAA, the institution where this research occurred provides an educational opportunity for students who wouldn't have otherwise qualified for one. In this regard, understanding student-athletes' propensity to trust may provide insights that will enhance the vital role college

athletics plays in providing an education to diversely prepared populations. University representatives should consider the findings of this study and seek to better understand the needs of NCAA Division I student-athletes.

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APPENDIX A

Review of the Literature

This dissertation investigates the influence of individual student-athletes' propensity to trust and its relationship with academic achievement. The study also examines the relationship between propensity to trust and demographic and educational variables that will assist athletic coaches, athletic administrators, and athletic support staff, such as advisors and learning specialists, to better understand the impact propensity to trust has on student-athletes.

The following portion of the dissertation is a review of the literature used in preparation for writing this dissertation. The writing begins with a brief history of NCAA Division I college athletics. It explains the relationship between the NCAA and sponsoring institutions of higher education. The review contains context that will assist the reader in understanding how and why the NCAA became involved in educational standards for student-athletes across the country. It will show how the mission of college athletics can, at times, be in conflict with the aims and goals of higher education. Next, the literature will review relevant trust research. Relevant topics include trust, propensity to trust, intragroup trust, and how this research relates to NCAA Division I college athletics.

Understanding the Role of the NCAA in Higher Education

Intercollegiate sports began in the mid-1800s when Harvard and Yale met in the sport of crew. Prior to 1906, sport associations were established to maintain oversight of collegiate athletic competition and college athletic eligibility; however, there was no national organization, which opened the door for the existence of the NCAA.

On December 28, 1905, in New York, 62 higher education institutions established the Intercollegiate Athletic Association of the United States (IAAUS). The IAAUS became

officially recognized in 1906 and took its present name, the NCAA, in 1910. The original role of the NCAA was primarily a rules-making body; however, as college sports became more popular and complex, the NCAA became involved in ownership of competition. In 1921, the first NCAA championship was held in track and field. In 1939, the NCAA held its first basketball championship.

As the NCAA progressed through the years, it moved well past its role as a rule-making body and became better known for its championship events and overall oversight of college sports. In the 1970s the NCAA recognized the need to create varying levels of competition. In 1973 the NCAA association members divided into three competitive and legislative divisions: Division I, Division II, and Division III. Not long after, further subdivision, I-A and I-AA, was made in Division I football. In 2006, Division I football made another change by creating the Football Championship Subdivision.

As the NCAA grew to be the dominant governing body of college athletics, the governing structure became more formalized. Today, the NCAA is governed by an executive committee titled the Board of Governors. Within the NCAA, there are two cabinets, each of which has several committees. Committee members consist of representatives of its member schools. These committees have the power to create legislation, including legislation regarding academic eligibility. Legislation is ultimately overseen by the Board of Directors, which consists of school presidents, who hold the power for final approval.

Since this study was done at an NCAA Division I institution, the focus of the study referred to the current NCAA Division I structure. On August 7, 2014, the NCAA changed its Division I governance structure. As of 2014, Division I college athletics is overseen by the Board of Directors, which has 24 members. Twenty of these directors are university presidents,

one is an athletic director, one is a faculty athletics representative, one is a female administrator, and one is a current student-athlete. The role of the current Division I Board of Directors is to oversee membership, strategy, governance, and policy. The Board of Directors maintains the right to sponsor legislation and endorse or adopt academic standards for continuing eligibility (see Table 1).

Table 1

NCAA Progress Toward Degree Requirements

Academic Requirements	Prior to the Second Year of Enrollment	Prior to the Third Year of Enrollment	Prior to the Fourth Year of Enrollment	Prior to the Fifth Year of Enrollment
Regular Academic Term	6 semester/6 quarter hours of credit			
Regular Academic Year	18 semester/27 quarter hours of credit			
Degree Credit	Credits accepted toward any degree offered at institution	Credits used must go toward the designated degree		
Annual/Percentage of Degree Completed	24 semester/36 quarter hours of credit	40%	60%	80%
GPA	90% of minimum required GPA	95% of minimum required GPA	100% of minimum required GPA	100% of minimum required GPA

Note. More information about NCAA continuing eligibility can be found at <http://www.ncaa.org/about/division-i-progress-toward-degree-requirements>

The Division I Board of Directors maintains the right to establish academic guidelines for each of its participating members and individual student-athletes. The NCAA sets minimum academic requirements for participating student-athletes; participating institutions can have their own academic requirements in addition to the minimum NCAA requirements. As one example, the NCAA can establish that in order to meet continuing eligibility for NCAA competition, a

student-athlete must maintain 1.8 cumulative GPA by the beginning date of their second year. However, an individual institution can establish that all students must maintain a 2.0 cumulative GPA in order to remain in good academic standing.

Another example is the NCAA can establish that a student-athlete must pass a minimum of 18 countable credits between fall and winter semesters to maintain continuing eligibility at an institution. However, the NCAA cannot determine what is a passing grade for each course. The institution may have a policy that a C or better is required to pass a specific course. As a result, a student-athlete at Division I college “Blue” may receive 15 credits of A grades between fall and winter semesters and 3 credits of a C- grade. If Blue institution determines a C- grade is not a passing grade, the student-athlete does not meet the minimum 18 credit fall/winter continuing eligibility rule. A student-athlete at institution “White” may receive the same 15 credits of A and 3 credits of C- and meet NCAA continuing eligibility if institution White accepts a C- as a passing grade.

Furthermore, the NCAA has established the following guidelines to meet initial eligibility requirements needed to compete at the NCAA Division I level: (a) Graduate from high school, (b) Complete 16 core high school courses and 10 before the seventh semester, (c) Earn a minimum of 2.3 GPA in core courses to compete the first year of college, (d) Earn a combined ACT or SAT score that matches core-course GPA on the sliding scale.

Individual institutions can create initial admission policies that are more rigorous than the NCAA initial eligibility requirements. For example, an NCAA Division I institution may determine that a cumulative GPA of 2.3 in core courses does not meet admission standards or criteria. Hence, a student-athlete who meets NCAA minimum initial eligibility requirements is not automatically qualified to meet an institution’s admission criteria.

Many institutions, including the institution where this study was conducted, can use athletic skill as a criterion for admission consideration. In such cases, student-athletes may have lower academic scores and, in some cases, may not be fully prepared for the rigor of a college education. The NCAA understands this and encourages institutions to have support systems in place to assist student-athletes. In the NCAA manual, by-law 16.3.1.1 states, “Member institutions shall make general academic counseling and tutoring services available to all student-athletes . . . In addition, an institution, conference or the NCAA may finance other academic support, career counseling, or personal development services that support the success of student-athletes” (NCAA, 2014, p. 26).

One of the NCAA’s core values advocates the balance of academic pursuit with athletic experiences. The NCAA claimed a graduation rate of 87% in 2017 (see Figure 1). They also claimed 16% of their student-athletes are first-generation college students. The NCAA helps ensure graduation rates by tying continuing eligibility with Progress Towards Degree (PTD). Each Division I student-athlete must complete a certain percentage towards their degree each year in order to compete. Prior to the beginning of the fifth semester, a student-athlete must have completed 40% of their degree; prior to the beginning of their seventh semester, a student-athlete must have completed 60% of their degree; and prior to the beginning of their ninth semester, a student-athlete must have completed 80% of their degree (see Table 1 for more detail). PTD, along with minimum credits passed and a minimum GPA requirement, is how the NCAA ties athletic competition requirements to academic achievement.

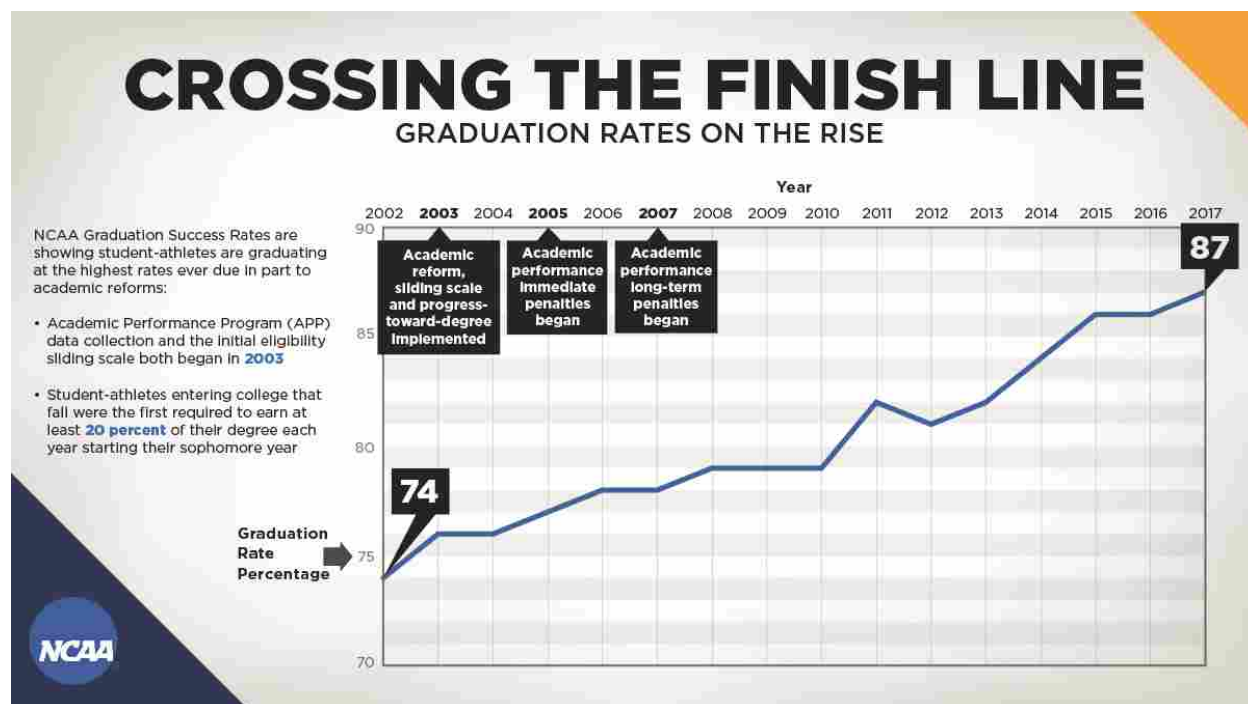


Figure 1. NCAA Division I graduation rates 2002–2017 (NCAA.org, n.d.).

An incongruence occurs when a student-athlete enters an institution underprepared and lacks proper academic habits or preparation to succeed or graduate from the institution. Aware of the issue, the NCAA encourages institutions to have support systems in place. Athletic administrators are charged to financially support these support services, athletic coaches are encouraged to mandate their student-athletes participate in academic support structures, and academic support staff are charged with providing academic support to the student-athletes.

Trust

This study considered the impact of various demographic and educational variables on *propensity to trust*. Propensity to trust (PTT) is one part of a much larger field of trust research and the aspects and antecedents explored in the vast research within this field. This section covers how trust has been defined and categorized in recent research and reviews the facets and antecedents to trust. This study will consider propensity to trust as a factor that moderates the

strength of relationship between Mayer, Davis, and Schoorman's (1995) factors of perceived trustworthiness (ability, benevolence, and integrity) and trust.

Trust definition. Trust is a topic that stretches through a variety of disciplines, such as management, psychology, economics, and sociology. Trust in a management construct needs to have a set of properties which another component can rely on (Bigley & Pearce, 1998).

According to Artz and Gil (2007), a trust management system is either based on reputation or policies. Reputation-based trust is made on the history of past interactions or encounters. In policy-based trust, the judgement is based on the status or credentials.

Related research on trust management was performed by Dirks and Ferrin (2002), where the authors examined research on leadership that was been conducted between 1960 and 2000. Their study concluded that "direct leaders are a particularly important referent of trust" (p. 611). Bijlsma and van de Bunt (2003) look at trust from a bottom up approach. The strategy of their study searched for a "parsimonious set of managerial behaviors that that serve as cues for subordinates regarding trust in managers" (p. 638). Bernerth and Walker (2008) examined the "influence of individual's propensity to trust on the relationship between supervisors and subordinates" (p. 217). A large focus of the research was levels of supervision and the influence on perceptions of social exchange theory. The findings of the study determined that "managerial propensity to trust did not have a direct influence on perceptions of social exchange quality" (Bernerth & Walker, 2008, p. 225).

Measures of trust at the country level have been related to important economic variables such as GDP growth (Knack & Keefer, 1997) and financial markets, and have also identified that higher bilateral trust between two countries is associated with more trade (Guiso, Sapienza, & Zingales, 2009). In addition to trade, Guiso, Sapienza, and Zingales (2008) documented that less

trusting individuals are less likely to buy stock. Though trust may be difficult to define in terms of economic growth or decline, it is clear it plays a role in a country's economy.

In the area of psychology, much of the trust research in the past decade has been centered on the Five Factor Model (FFM), which organizes personality traits under five dimensions: neuroticism, extraversion, conscientiousness, openness, and agreeableness (Costa & McCrae, 1992). The FFM is a well-established taxonomy of global personality traits and is related to many organizational traits such as job satisfaction (Judge, Heller, & Mount, 2002), organizational citizenship behaviors (Chiaburu, Oh, Berry, Li, & Gardner, 2011), and academic performance (Poropat, 2009).

Since the focus of this research is within the social sciences, a deeper historical perspective is provided. Trust research within the social sciences largely began in the late 1950s with Morris Rosenberg (Rosenberg, Suchman, & Goldsen, 1957) and Morton Deutsch (Deutsch, 1958). These authors concluded trust is “the individual's degree of confidence in the trustworthiness, honesty, goodness, generosity, and brotherliness of the mass of men” (Rosenberg et al., 1957, p. 26), and “motivational consequences” (Deutsch, 1958, p. 266). Next, J. B. Rotter's trust research in 1967 built upon Rosenberg's definition of trust as an interpersonal factor and developed an “interpersonal trust” scale that was widely used for several decades. Rotter (1967) defined interpersonal trust as “an expectancy held by an individual or a group that the word, promise, verbal or written statement of another individual or group can be relied upon” (p. 651). According to Rotter, trust is significantly correlated with “positions in the family, socioeconomic level, religion, and religious differences between parents (p. 664). Rotter (1967) viewed interpersonal trust as a belief in the communications of others when there is no evidence for disbelieving.

The term “expectancy” used by Rotter (1967) led to Lynne Zucker’s (1986) definition of expectancy as “a set of expectations shared by all those involved in an exchange” (p. 54).

Zucker outlined what she considered the two main components of trust: background expectations and constitutive expectations. She defined background expectations as “the common understandings that are taken for granted as part of a world known in common” and characterized this definition with the properties of the “attitude of daily life” and the “reciprocity of perspectives” (Zucker, 1986, p. 57). She defined constitutive expectations as “the rules defining the context or situation” and characterized this definition with the properties of “independence from self-interest” and “intersubjective meaning” (Zucker, 1986, p. 58).

In 1993, Sitkin and Roth summarized that “nearly all research has at least discreetly accepted a definition of trust as a belief, attitude, or expectation concerning the likelihood that the actions or outcomes of another individual, group or organization will be acceptable” (p. 368). Sitkin and Roth (1993) defined trust as “belief in a person’s competence to perform a specific task under specific circumstances” (p. 373).

One of the most frequently cited definitions of trust in recent decades has been from Mayer et al. (1995): “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party” (p. 712). This definition has been a prominent building block as other researchers have used it as a baseline (Hoy & Tschannen-Moran, 1999; Mishra, 1996; Rousseau, Sitkin, Burt, & Camerer, 1998; Serva, Fuller, & Mayer, 2005).

One notable variation from Mayer et al.’s definition (1995) was offered by Costa, Roe, and Taillieu (2001), who conceptualized trust as a multi-component variable with three distinct

but interrelated dimensions: propensity to trust, perceived trustworthiness, and cooperative and monitoring behaviors. In this definition, propensity to trust acts as a dispositional variable as well as cognitive and behavioral dimensions. This variance only furthers the need to maintain a distinction between propensity to trust, or an individual's general willingness to trust others, and actual trust or trusting behaviors (Mayer et al., 1995)

Further trust study indicates trust can be an element of the social reality (Searle, 1995). The perception of trust can be real, based on events of the past, or it can seem to be imaginary, based on our own perceptions. Trust can be especially valuable if the trustee is more powerful than the trustor, yet the trustor is under social obligation to support the trustee (Baier, 1986).

Antecedents of trust. In this research, the principal investigator examined several variables as antecedents to trust. Sex, members of the religion affiliated with the university, non-members of the religion affiliated with the university, transfer student, and returned missionary as well as propensity to trust are used as variables or possible characteristics that may shed light on relevant antecedents to trust. Since trust antecedents are part of the research apropos to this study, it is important to understand their construct. The antecedents and intention to trust has been researched in a variety of ways. Work produced by Mayer et al. (1995) stated intention to trust is influenced by perceived characteristics of the trustee and predisposition of the trustor. Later work found that perceived ability, benevolence, and integrity of the trustee predicted an individual's intention to trust (Mayer et al., 1995). This work established three factors of perceived trustworthiness (ability, benevolence, and integrity) and separated trust from trustworthiness (Colquitt, Scott, & LePine, 2007) and "trustor's propensity" from those three factors. Regarding trustworthiness, Lewis and Weigert (1985) noted that trust is based on a

cognitive process which discriminates among persons and institutions that are “trustworthy, distrusted, and unknown” (p. 970).

According to the Mayer et al. model (1995), antecedents to trust tend to be driven by both the dispositional factors and the trustworthiness perceptions. Generally, in the Mayer et al. model (1995), disposition to trust is characterized by a tendency to accept the vulnerability to others in a relationship, otherwise known as propensity to trust.

Gill, Boies, Finegan, and McNally (2005) discovered that ability, benevolence, and integrity predicted an individual’s intention to trust. Further, propensity to trust correlated with intention to trust when information about trustworthiness was clear (Gill et al., 2005). Zucker (1986) placed trust into “three central modes of trust production, each with associated measures: (1) process-based, where trust is tied to past or expected exchange such as in reputation or gift-exchange; (2) characteristic-based, where trust is tied to person, depending on characteristics such as family background or ethnicity; and (3) institutional-based, where trust is tied to formal societal structures, depending on individual or firm-specific attributes” (p. 53). Zucker (1986) further explained that “trust can be explained only in terms of unmeasured antecedents: if rules are internalized—or moral codes or norms of reciprocity apply—then trust exists” (p. 60).

In the mid-1990s, McAllister (1995) divided interpersonal trust into two basic forms (cognition-based trust and affect-based trust). According to McAllister (1995), cognition-based trust is “grounded in individual beliefs about peer reliability and dependability” (p. 25) and affect-based trust is “grounded in reciprocated interpersonal care and concern” (p. 25).

In 1998, Rousseau et al. examined a multidisciplinary view of trust. This view demonstrated just how complex it is to categorize trust. The authors cautioned a limited categorization, stating “conceptualizing trust in only one form in a given relationship risks

missing the rich diversity of trust” (p. 401). Trust research was categorized into types including deterrence-based trust, relational trust, calculus-based trust, and institution-based trust (Rousseau et al., 1998).

In 1999, Hoy and Tschannen-Moran determined the five faces of trust: benevolence, reliability, competence, honesty, and openness. In 2000, they created what they called “bases and degrees of trust,” which included trust and diversity, institution-based trust, and knowledge-based trust (Tschannen-Moran & Hoy, 2000).

In 2002, Bryk and Schneider developed three trust categories: organic trust, contractual trust, and relational trust. They define organic trust as “predicated on the more or less unquestioning beliefs of individuals in the moral authority or a particular social institution” (p. 16). The authors define contractual trust as trust where “the basis for social exchange is primarily material and instrumental” (Bryk & Schneider, 2002, p. 17). In the same study, Bryk and Schneider (2002) categorized relational trust as “an intermediate case between the material and instrumental exchanges at work in contractual trust and the unquestioning beliefs operative in organic trust” (p. 21). Bryk and Schneider (2002) further categorize relational trust as being built on four criteria: respect, competence, personal regard for others, and integrity.

Colquitt et al. (2007) researched antecedents of trust and showed that propensity to trust was significantly related to Mayer et al.’s (1995) three precursors to trustworthiness. The authors considered three categories of trust scales: those using positive expectations components of trust, those assessing vulnerabilities, and those they termed “direct measures,” where respondents were asked to rate their levels of trust (Colquitt et al., 2007, p. 912). Their findings indicated that “trust propensity remained a significant predictor of trust” (Colquitt et al., 2007, p. 915). They also argued for propensity to trust to be categorized as an antecedent to

trustworthiness, stating that to do so “would have significant indirect effects on trust to go along with its significant direct effect” (Colquitt et al., 2007, p. 919).

Propensity to Trust

Propensity to trust is the lynchpin of this dissertation. In this study it is important to define propensity to trust and how propensity to trust affects intragroup trust. To measure propensity to trust value in the respondents, this study used the Propensity to Trust Scale (PTTS) that was developed and validated by Frazier, Johnson, and Fainshmidt (2013).

Propensity to trust has been established as an antecedent to trust. What distinguishes this dissertation is that research was done to show what student-athlete variables or demographics may explain a variance in propensity to trust. This research places propensity to trust as a construct within a population of student-athletes and conceptualizes that propensity to trust moderates the strength of the relationship between Mayer et al.’s factors (1995) of perceived trustworthiness (ability, benevolence, and integrity) and trust.

Defining propensity to trust. For this dissertation, the term “propensity to trust” is defined in the widely cited work by Mayer et al. (1995), in which they define it as “a general willingness to trust others” (p. 715). Other researchers use similar yet different definitions such as a “capacity to trust” (Hardin, 1993, p. 513). Kramer (1999) briefly discussed previous research in the field and stated that “ample evidence exists from both laboratory experiments and field-based research that individuals differ considerably in their general predisposition to trust other people. Research suggests further that the predisposition to trust or distrust others tends to be correlated with other dispositional orientations, including people’s beliefs about human nature” (p. 575). The term “disposition to trust” is also cited by other authors (Gill et al., 2005; McKnight, Cummings, & Chervany, 1998; Tschannen-moran & Hoy, 2000) and is used in this

study. Rotter (1967) used the concept of generalized expectancy for trust. Though not the same as propensity to trust, generalized expectancy for trust is known as a precursor to further research regarding propensity to trust.

Burke, Sims, Lazzara, and Salas (2007) also use the term “predisposition,” but they define propensity to trust as “the general willingness to place faith in others’ reciprocity and good intentions” (p. 619) and “a general tendency to make positive attributions about others’ intentions” (p. 609). Like Hardin (1993), Burke et al. (2007) posit that an individual’s propensity to trust is developed from previous learned experiences.

McKnight, Choudhury, and Kacmar (2002) referred to propensity to trust as “faith in humanity” and “trusting stance” (p. 340). Trusting stance was encompassed within the framework of disposition to trust and was defined as “regardless of what one believes about peoples’ attributes, one assumes better outcomes result from dealing with people as though they are well meaning and reliable” (McKnight et al., 2002, p. 340). All of McKnight et al.’s questions (2002) for “trusting stance” were developed and analyzed (using confirmatory factor analysis) by Frazier et al. (2013) for their PTTS model. McKnight and his colleagues also theorized that disposition to trust influences “institution-based trust” and “trusting intentions” (2002, p. 340).

Other phrases used in the construct of propensity to trust include “motivation to trust” (Williams, 2001), “intention to trust” (Gill et al., 2005), and “risk propensity” (Sitkin & Pablo, 1992). “Motivation to trust” was defined by Williams (2001) as “the desire to view another person as trustworthy enough to be relied on” (p. 387). In discussing this aspect as it relates to trust development, the author states that “the motivation to trust influences whether or not a certain level of perceived trustworthiness is high enough for one individual to trust another in a

given situation” (Williams, 2001, p. 388). Gill et al. (2005) used the term “intention to trust” as a related construct to propensity but distinguished the two in the operational definitions (using separate scales to measure each). The authors found that “intention to trust” and “propensity to trust” are strongly related, depending on the situation, and state that “intention to trust is also determined by the personal disposition of the trustor” (Gill et al., 2005, p. 289). Sitkin and Pablo (1992) also used the term “risk propensity” to identify this construct and defined it as “the tendency of a decision maker either to take or avoid risks” (p. 12).

Propensity to trust as an antecedent to trust. In their work, Mayer et al. (1995) placed a trustor’s propensity to trust as an outside variable, or a “within-party factor that will affect the likelihood the party will trust” (p. 715). The authors also stated that “propensity should contribute to the explanation of variance in trust if used as a part of a more complete set of variables” (Mayer et al., 1995, p. 716). Propensity to trust, while not a part of the three factors of perceived trustworthiness, was still considered an integral antecedent in Mayer et al.’s model (1995). The authors stated that “to understand the extent to which a person is willing to trust another person, both the trustor’s propensity to trust and the trustor’s perceptions of the trustee’s ability, benevolence, and integrity must be discerned” (Mayer et al., 1995, p. 724).

Colquitt et al. (2007) stated that “trust propensity is likely to be the most relevant trust antecedent in contexts involving unfamiliar actors” (p. 911). In conducting a meta-analytic test for this and other factors, the authors confirmed that “propensity was significantly related to all three trustworthiness facets” (Colquitt et al., 2007, p. 918).

Trust and Propensity to Trust Research in the Student-Athlete Context

Little research has been done on trust and student-athletes; however, athletic teams and organizations like an NCAA Division I team certainly have many organizational attributes. A

great deal of research has been done on organizational trust. In addition, research has been done on trust in educational settings. Also related to material in this study, propensity to trust has been researched as part of intragroup trust. Intragroup trust lies at the core of student-athlete relationships with coaches, athletic administrators, and support staff.

Organizational trust. Trust has been linked to a variety of positive work attitudes, such as job satisfaction and organizational commitment, work behaviors, job performance, and citizenship behavior (e.g., Aryee, Budhwar, & Chen, 2002; Watson & Papamarcos, 2002). Helliwell and Wang (2010) found a relationship between a climate of trust in the workplace and satisfaction with life. Rotter (1971) indicated those prone to trust others are less likely to engage in deviant behavior. In addition, Rotter (1971) suggested that individuals with a high propensity to trust are more likely to act in a trustworthy manner. Dirks and Ferrin (2002) indicated that trust in leadership is related to job performance, intentions to quit, organizational commitment, and job satisfaction. In terms of college athletics, organizational leadership commitments, acting in a trustworthy manner, job performance, intentions to quit, and job satisfaction are all key elements of a successful team.

Importantly, the process by which trust forms initially (propensity to trust) may be different than the processes involved in maintaining trust (Mayer et al., 1995; McKnight et al., 1998). McKnight et al. (1998) asserted that initial trust between people is based on an individual's disposition to trust, particularly during the first encounter when individuals have not had the opportunity to observe each other's behavior. This opens the possibility that the relation between propensity to trust and intention to trust changes over time. A Division I college athletic team acts much like an organization in that the longer amount of time teammates spend

together, or the longer student-athletes interact with academic support services, the stronger the potential for the relationship of propensity to trust and intention to trust to change.

Gill et al. (2005) discovered that ability, benevolence, and integrity predicted an individual's intention to trust. Further, propensity to trust correlates with intention to trust when information about trustworthiness was clear (Gill et al., 2005). Situational strength may be an important boundary condition of the relation between propensity to trust and intention to trust. Further, Gill et al. (2005) summarized, the notion of strong and weak situations is used to argue that situational strength is a boundary condition for the relation between propensity to trust and intention to trust. It is possible that athletic teams or the experience of a student-athlete may be influenced by the strong and weak boundary conditions imposed by athletic competition.

In addition to conditions created by athletic competition, additional conditions are created by the equal demands of time-management, social pressures, and academic rigors found at many universities. The combination of these demands places emphasis on proper support systems to surround student-athletes during their college experience. The NCAA encourages those supporting student-athletes (e.g., coaches, athletic administrators, and support staff) to build relationships of trust with each student-athlete as stated in the NCAA's student-athlete guidebook *Mind, Body and Sport: Understanding and Supporting Student-Athlete Mental Wellness*:

When student-athletes trust us, they will approach us for anything—especially when they need help. One thing that will help gain trust is by taking the time to really listen—that has allowed me to get to know student-athletes as individuals. The information gained

through listening, no matter the topic, is often vital for future conversations. (NCAA, 2014, p. 69)

The complexion of an athletic team can have an impact on the social norms of the individual student-athletes. In an athletic team context, collectivism, which represents an individual's belief that collective or group (athletic team) interests, should take precedence over individual of self-interest (Kim, Triandis, Kagitcibasi, Choi, & Yoon, 1994; Parsons & Shills, 1951). Thus, collectivism acts as a central cultural value that has influences on social behavior (Triandis, 1989). Collectivists tend to place a high value on group goals, group cohesiveness, and in the case of athletics, team well-being. Nearly all NCAA student-athletes have grown up in a "team environment." Even individual sports such as track and field, cross-country, swimming, and gymnastics have a strong team component and the success of the team depends on the performance or actions of the individuals.

Collectivist logic could extend to a team. As such, we can speculate that trusting individuals on a team and who value relationships with others would be more likely to sacrifice personal goals for team goals and to have an overall better athletic experience. Propensity to trust as a relational construct interjects the self in relationship to other individuals and in relationship to organizations or collectivities (Banaji & Prentice, 1994), or in the case of this study, NCAA Division I athletic teams. Ultimately, interorganizational relationships develop and reside within individuals who sustain an interorganizational tie (Dyer & Chu, 2000). These types of relationships potentially influence the trust of each student-athlete.

Furthermore, individual student-athletes with a high propensity to trust would value relationships with others within the organization and enhance the student-athletes' sense of self-worth as a contributing team member. In contrast, student-athletes with a low propensity to trust

would not get involved with the team because they would be concerned that others would shirk responsibility or would think of them as a “sucker” (Jackson & Harkins, 1985; Schnake, 1991). It is likely, in the case of student-athletes who have a low propensity to trust, that they do not develop a strong relationship with those charged to provide support and are less likely to acquire skills needed to fulfill the scope be a successful student-athlete.

Trust within an educational framework. There is solid research dedicated to trust in an educational setting, the majority focusing on kindergarten through secondary education. Very little research on trust involves settings of higher education. At the institution where this study was performed, an academic support center exists and acts much like a school within a school. The academic center provides student-athletes with academic advisors, academic learning specialists, and academic tutors.

At the institution where the study occurred, the academic advisors provide course counseling and help direct student-athletes into courses that meet their major or graduation requirements. This advisor counseling aids student-athletes in the creation and follow-through of a graduation plan. Learning specialists focus on teaching academic behaviors that lead to academic success. These behaviors include attending class, proper note-taking, appropriate interaction with professors, engagement in class discussions, and proper amount of study time devoted to each course, project, assignment, and exam. The role of the learning specialist is similar to a K-12 teacher assistant. The learning specialists act to enhance student learning by providing individual attention to a limited number of students. Tutors are used to provide content specific training in the form of one-on-one instruction outside of class, group reviews for exams, or providing greater depth to critical course content not offered by the professor. The

services provided by the institution studied act to enhance the experience found in the classroom; they do not act to replace the experience of the classroom.

Similar to trust in a K-12 school, the academic support structure views trust as an essential element in a high-functioning school. Tschannen-Moran, a leading researcher in school trust, states in her research about the interconnectivity of trust in schools that “trust undergirds cooperative behavior and requires expectations of role relationships and is seen as a vital ingredient in the work of schools” (2014, p. 57). Schools have the expectation that principals, students, and parents will behave in ethical ways (Tschannen-Moran, 2014). Student-athletes, academic support staff, coaches, and school athletic administrators at an NCAA Division I athletic program have a similar relational expectation.

While trust is an interdisciplinary topic that has more recently branched into the field of education, there is limited research from the student-athlete perspective, and even less at the university level within the United States. This dissertation adds to the research of this specific population and considers what factors and attributes impact the propensity to trust of student-athletes participating in NCAA Division I college athletics in the United States.

Student-athlete intragroup trust. Intragroup trust refers to trust that takes place between two or more members of the same group. Like many NCAA Division I college athletic departments, there are several intragroup dynamics: academic support staff, coaching staff, athletic administrators, individual teams, and even within a team itself. By definition, for trust to exist, two or more parties must be in a relationship that presents a risk, in which the parties are also dependent upon each other (Rousseau et al., 1998).

These relationships occur naturally in college athletic departments. For example, coaches and student-athletes enter a relationship that presents a risk. The student-athlete accepts that a

coach makes decisions such as team standing, playing time, practice commitments, health and nutrition expectations, and physical conditioning demands. The coach depends on the student-athlete to meet skill development and performance expectations. In high profile Division I teams, such as football, this relationship is high risk/high reward.

Germane to this study, another important intragroup trust worth examining is trust between team members and those who support them academically. By definition, intragroup trust takes place between two or more individuals of the *same* group. An observation made by the institution where this particular study takes place is that each NCAA team seems to have, or take on, a unique personality. For example, members of the men's track team have or acquire specific personality traits that are different from personality traits of the members of the football team. This study found propensity to trust varies from team to team. One theory is that this difference may be the result of intragroup trust and how that trust is expressed in actions towards the academic support team. One of the key findings of this study is how propensity to trust is related to academic success, defined by grade point average (GPA). As a result, it is important to consider the role of propensity to trust in the development of intragroup trust.

In small group settings, like a team, individuals depend upon each other to achieve task-related outcomes (Champion, Medsker, & Higgs, 1993; Guzzo & Dickson, 1996; Kozlowski & Bell, 2003). Like other organizations, and maybe more so, these relationships present risks and rewards (Wageman, 1995), and not just the obvious outcomes of winning. Team academic outcomes, such as team graduation rates, are also tied to the success of the intragroup. When a student-athlete first enters college, they often have only experienced limited interaction with a coach and teammates, and it is often the first time they meet support personnel such as academics. This experience places them in an unfamiliar intragroup dynamic. Trust among

newly forming groups is fragile. Meyerson, Weick, and Kramer (1996) make this point: “Expectations are high but so are reservations. One foot is in the water, but the other is braced firmly on solid ground” (p. 184). Because these relationships between student-athletes and coaches, student-athletes and teammates, and student-athletes and academic support staff are new, a premium is placed on the actor’s propensity to trust. The student-athlete’s propensity to trust is of particular interest because their experience in a Division I college athletic program and an institution of higher learning is limited to the number of years they have been in college. Veteran coaches, administrators, and support staff experience this relationship each year; however, for a student-athlete, their experience is genuinely novel.

In context to this study, Rotter (1967, 1971) proposed that propensity to trust is highly relevant to a novel trusting relationship where the information available to the actors is based upon their early life experiences. Furthermore, Gill et al. (2005) would expand that initial propensity to trust will be a significant factor in predicting their intention to trust another party. For the purpose of this study, student-athletes with a high propensity to trust in an intragroup setting generally assume others in the group act in a trustworthy manner, best described by Mayer et al. (1995) “trustor’s propensity” as “a stable within-party factor that will affect the likelihood the party will trust” (p. 715). On the other hand, a student-athlete with a low propensity to trust in an intragroup setting may be unlikely to trust for fear others in the group will take advantage of them (Butler, 1999).

Overall performance of most NCAA Division I athletic programs, and specifically the institution where this study was performed, is defined by three major outcomes. The first is competitive outcomes such as winning games, matches, rivalries, and championships. The second is the perceived character or citizenship of its student-athletes. The third is the academic

achievements (defined by GPA and graduation rates) of the student-athletes. Since this study does not examine wins and losses or overall citizenship (though wins and losses and student-athlete citizenship may be topics to study in the future with the data recovered from this study), the results mainly apply to those charged with helping student-athletes achieve academic success. Little research has been done on student-athlete trust in a higher education setting. This dissertation adds to the research of a specific education population but can be expanded to similar populations in higher education.

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APPENDIX B

Method

Problem Statement

A large number of NCAA division I student-athletes enter institutions of higher learning unprepared for the academic rigor of college. In addition, the NCAA places regulations and continuing eligibility standards including Progress Towards Degree (PTD), minimum grade point average (GPA), and minimum countable credits of enrollment and minimum credits earned each semester, all with the intent to ensure student-athletes are in fact college students who are working towards a degree. College athletic administrators, specifically academic advisors, learning specialists, and other academic support staff, are charged with providing adequate academic support that allows student-athletes to receive help in maintaining ongoing academic eligibility and progressing towards graduation. Academically at-risk student-athletes who have a low propensity to trust will likely experience heightened stress, fear, and anxiety at BYU. In addition, they will be more likely to face consequential actions such as loss of eligibility and academic dysfunction. If academic support staff can identify student-athletes' propensity to trust, they will be able to identify strategies and gain insight that will help them gain student-athlete trust and provide more effective support. As student-athletes follow the advice of their academic support staff, they will be more likely to improve their academic performance. In addition, coaches and personnel who identify prospective student-athletes to recruit may be able to identify *propensity to trust* as a criteria or factor in the recruiting process.

This dissertation sought to answer the following questions:

1. What demographic factors are associated with student-athlete propensity to trust?
2. What educational factors are associated with student-athlete propensity to trust?

3. Does propensity to trust vary among athletic teams?
4. In what ways do educational and demographic variables and propensity to trust predict current academic achievement?

From these questions, the following hypothesis were tested:

Hypothesis 1: Student-athletes who are on scholarship and student-athletes who are college transfers will have a higher propensity to trust than student-athletes not on scholarship and who are not college transfers.

Hypothesis 2: Propensity to trust will be higher for non-minority, members of the religion affiliated with the institution, returned missionary, male (sex defined as male and female), and married student-athletes than for student-athletes who are minority, not members of the religion affiliated with the university, did not serve missions for the religion affiliated with the university, female, and are unmarried.

Hypothesis 3: Propensity to trust will not vary significantly between the 17 athletic teams on the campus included in this study.

Hypothesis 4: Student-athlete propensity to trust will predict, with a high degree of accuracy, current college GPA in comparison to other demographic and educational variables.

The results of the studied hypotheses are reflected in the Findings section of the study. Some of the results were presented in the study but not explained in great detail. Two findings deserve a more in-depth explanation: propensity to trust between male and female student-athletes, and propensity to trust between married and non-married student-athletes.

The t-test results in Table 1 found that the mean PTT score for male student-athletes was 14.57 and the mean PTT score for female student-athletes was 14.85. The difference between

male PTT and female PTT was not significant ($p = .554$), as seen in Table 2. Thus, the prediction in Hypothesis 2 that being a male student-athlete increases propensity to trust was not supported.

Table 1

PTT by Sex (Male vs. Female), T-Test

	N	Mean	Std. Deviation	Std. Error Mean
Male	104	14.57	3.665	.359
Female	117	14.85	3.539	.327

Table 2

PTT by Sex, Independent Samples Test

	Levene's Test for Equality of Variances		T-test for equality of means				95% conf. interval of difference		
	F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. Error difference	Lower	Upper
Equal variances assumed	.038	.846	-.593	219	.554	-.287	.485	-1.243	.668
Equal variances not assumed			.591	213.969	.555	-.287	.486	-1.245	.671

One other finding not fully explained in the Findings section is propensity to trust for married and non-married student-athletes. The t-test results in Table 3 found married student-athletes had a mean PTT score of 14.67 and non-married student-athletes had a mean PTT score of 14.73. The difference between the two groups is not significant ($p = .909$). Specifically, the independent samples test (Table 4) found a significance value of .90, which did not meet a 95% level of certainty.

Table 3

PTT by Marital Status (Married vs. Not Married), T-Test

	N	Mean	Std. Deviation	Std. Error Mean
Not Married	173	14.73	3.369	.277
Married	48	14.67	3.460	.499

Table 4

PTT by Marital Status, Independent Samples Test

	Levene's Test for Equality of Variances		T-test for equality of means				95% conf. interval of difference		
	F	Sig.	t	df	Sig. (2- tailed)	Mean difference	Std. Error difference	Lower	Upper
Equal variances assumed	.259	.611	.115	219	.909	.067	.588	-1.090	1.225
Equal variances not assumed			.118	78.263	.906	.067	.571	-1.069	1.204

Instrumentation

This study used a Propensity to Trust Scale (PTTS) developed by Frazier, Johnson, and Fainshmidt (2013) to determine the propensity to trust of NCAA Division I student-athletes at Brigham Young University. The instrument used by Frazier et al. (2013) went through a process of using questions considered by other trust researchers. As a result, Frazier's scale is accepted among trust researchers as an instrument that clearly measures propensity to trust (see Table 5). In addition to previous questions, Frazier and his colleagues developed three additional questions on their own. The final product is four questions related to propensity to trust with Likert scale responses. Answers on the Likert scale range from 1, strongly disagree, to 5, strongly agree. The

result of the questions gives a final propensity to trust product with a Chronbach's Alpha of .85, .84, .70, .89, respectively (see Table 5 below).

Table 5

Propensity to Trust Scale (Frazier et al., 2013)

Question	Chronbach's Alpha
1. "I usually trust people until they give me a reason not to trust them."	.85
2. "Trusting another person is not difficult for me."	.84
3. "My typical approach is to trust new acquaintances until they prove I should not trust them."	.70
4. "My tendency to trust others is high."	.89

The principal investigator for this study created a questionnaire that asked for the student-athletes' BYU (Brigham Young University) net ID (Network Identification), which allowed corresponding educational factors, demographics, GPA, ACT score, and athletic team. The information gathered was explained in the consent form and obtained by the principal investigator with university permission.

Sampling and Collection Process

The target population for this study is all student-athletes who participate on one of Brigham Young University's NCAA Division I athletic teams. Of the 477 student-athletes, 14 were under the age of 18 and were not included. The sampling frame encompasses those NCAA student-athletes at BYU who responded voluntarily to the study. A Qualtrics questionnaire was sent out to 463 BYU NCAA student-athletes, and the results of the survey were returned to the principal investigator.

The questions on the survey were those from the Propensity to Trust Scale by Frazier et al. (2013) along with a question asking for the student-athletes' BYU net ID. As an Associate Dean of Students and Director of the Student Athlete Life and Learning Center at BYU, the

principal investigator has access, by approval of the Executive Director of Student Academic and Advisement Services (SAAS), to university databases, which allows him access to the remaining data needed to complete the study. Therefore, the principal investigator was able to ensure that all of the respondents were NCAA Division I student-athletes and eligible participants in the study.

Of the 463 potential respondents, 221 completed the survey, which is a 47.7% response rate. The Qualtrics survey maintained a list of respondents' BYU net ID of those who completed the survey. The principal investigator took that list from Qualtrics and entered the data into an Excel spreadsheet. Next, the principal investigator entered the educational, demographic, and team information needed to complete the study. Once all of the information was gathered in Excel, the principal investigator uploaded the information to SPSS. Using frequency distributions, the data was visually scanned for outliers. The column indicating BYU net ID was deleted and fields were recorded using numerical value. All yes/no questions were changed to No = 0 and Yes = 1 to provide a level of consistency throughout the study.

Variables for this Study

Some of the variables used in this study will be familiar to the reader, while others may be less familiar. Some context behind peculiar variables is helpful in understanding the scope of the research. Familiar demographic and educational attributes such as sex, year in school, married, transfer student, scholarship, ACT score, and GPA were used for the purpose of this study. In addition, this research includes other demographic information that may be less familiar to the audience. Specifically, "returned missionary" and "LDS" are germane to the group of student-athletes surveyed at Brigham Young University. The sponsoring organization of

Brigham Young University is The Church of Jesus Christ of Latter-day Saints (LDS). Within the LDS church are references familiar to members but may be less familiar to others.

Most obvious is the acronym LDS, which is an abbreviated acronym for The Church of Jesus Christ of Latter-day Saints (Latter Day Saint). The student population at Brigham Young University is over 90% LDS. Those who come to Brigham Young University are aware of the sponsoring organization even if they are not active members in it. Brigham Young University requires all applicants to agree to a strict Honor Code prior to being admitted into the university. The process of agreeing to live the Honor Code makes it clear that these are values shared by LDS members. Even though it is not required to be LDS at BYU, one is required to live the values. Each non-LDS applicant must have a personal interview with the chaplain at BYU, who explains to the applicants about the sponsoring religion (LDS) and the values they are expected to live. Hence, the terms “LDS” and “non-LDS” are terms used frequently during the BYU experience.

The term “returned missionary” is another common term known to those who attend BYU. A returned missionary is one who has spent up to 2 full years (male) or 18 months (female) serving a mission for the LDS church. Men can begin to serve a mission at a minimum age of 18, after graduating from high school, up to the age of 25. Women can serve at a minimum age of 19 up to the age of 25. An LDS individual, upon completion of a mission, is referred to as a returned missionary. The variable is used in the study and indicates those who have served such a mission (returned missionary) and those who have not (non-returned missionary).

Analysis

The purpose of this study is to examine the impact *propensity to trust* may have on NCAA Division I student-athletes' academic success. College athletic administrators, specifically academic advisors, learning specialists, and other academic support staff, are charged with providing student-athletes with adequate academic support as well as help them maintain academic eligibility by progressing toward graduation. The researcher wanted to determine if various educational and demographic attributes had a correlation or relationship exists with NCAA Division I student-athletes' (at BYU) with propensity to trust. Propensity to trust was established by aggregate scores on the PTTS questions. Aggregate scores vary anywhere from 4 (lowest possible aggregate score) and 20 (highest possible aggregate score). Descriptive statistics were run for each variable (see Table 6 below).

Comparisons were then made using a t-test to interpret PTT with corresponding variables. Next, an ANOVA test was used to compare PTT by each athletic team. Post-hoc tests were run to further determine PTT correlations and directional measures in each team. Independent samples tests determined equality of variances (Levene's test) and whether there was a statistically significant difference between the two unrelated groups. Regression tests were then run to determine predictors for PTT and predictors for GPA.

Each of these findings were discovered with the intent to answer the hypothesis questions in the study. Consideration was given to each finding with the purpose of validating or invalidating the hypotheses. Future research could be beneficial in identifying other themes of possible hypotheses from this study.

Table 6

Descriptive Statistics

Variable	N	Range	Min.	Max.	Mean	Standard Deviation	Skewness	
							Statistic	Standard Error
Minority	221	1	0	1	.25	.43	1.14	.16
LDS	221	1	0	1	.83	.37	-1.75	.16
Scholarship	221	1	0	1	.59	.49	-.38	.16
Age	221	15	18	27	20.57	2.24	1.06	.16
Team	221	16	1	17	8.53	4.92	.23	.16
RM	221	1	0	1	.36	.48	.59	.16
Year in School	221	4	1	5	2.38	1.3	.47	.16
Married	221	1	0	1	.22	.41	1.38	.16
Native Lang.	221	1	0	1	.04	.19	4.67	.16
Transfer Student	221	1	0	1	.06	.24	3.61	.16
Sex	221	1	0	1	.53	.50	-.11	.16
HS GPA	215	1.63	2.37	4.00	3.64	.37	-1.36	.16
GPA	221	2.54	1.46	4.00	3.30	.55	-.96	.16
ACT	216	32	16	34	24.29	4.309	-.27	.16
Valid N (listwise)	213							

Note. RM = Return Missionary, Native Lang. = Native Language, HS GPA = High School Grade Point Average, ACT = American College Testing score, PTT = Propensity to Trust.

APPENDIX C

Consent Form

Part E Consent Form Questions on the Qualtrics Software

Research Informed Consent – 2016-2017

Brigham Young University Student Athlete Academic Center is conducting a research study. Based on NCAA student-athlete criteria you were selected as one who could provide valuable feedback toward this research. Your participation is voluntary.

Why is research study being done?

This research is being conducted to better understand the ways that Learning Specialists and Academic Advisors can help NCAA student-athletes receive proper academic support at Brigham Young University.

What is the process if I participate in this research study?

To participate, complete the link below to complete the questionnaire. It is anticipated completion will take 3-5 minutes, although each individual may vary in the time it takes to answer the questions. You may discontinue at any time, without penalty. Clicking the link below will show your consent to be part of the research study.

Are there any potential risks or discomforts that I can expect from this study?

There could be questions that may cause discomfort in deciding how to answer, and uncertainty as to which response is the “best option”. Remember, there is no one “right” answer. Answers are based on your own perceptions and self-recognition.

Are there potential benefits if I participate?

In working with NCAA student-athletes, Academic Advisors and Learning Specialists may have a better understanding of ways to gain trust and ultimately provide better academic support services.

Will data about my participation be confidential?

Your information will be strictly anonymous and confidential, used only for research purposes.

Why do I need to give my student (net) ID?

Your student ID is only given so the principal investigator can link your information to the study and the student ID will never be shared at any time in the study. From your student ID, the principal investigator will seek the following information only: your current GPA, EGPA, scholarship, age, sex, team, minority, LDS, year in school (freshman, sophomore, junior, or senior), transfer, return missionary, dependent children, native language, and first generation college student. This information will only be used to determine differences in groups as a whole and never tied to you individually.



What are my rights if I participate in the study?

You can select whether you want to participate, and may discontinue at any time. There will be no negative consequences to you for withdrawing.

If you choose not to participate in the study, there will be no consequences to your athletic eligibility. In addition, if you choose not to participate, you are still eligible to receive all academic services provided in the Student Athlete Academic Center.

Who can I contact if I have questions about this research?

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Dissertation Committee Chair

Educational Leadership & Foundations

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801-422-3600

I accept the terms and conditions and would like to participate in the survey.


Yes

No

Thank you for your consideration of this project.



Student Athlete Survey

	Institutional Review Board
5-31-2017 Approved	5-30-2018 Expires

Message **Options**

Send Cambria 16 Attach Picture High Priority Low Priority Check Names

To: 2017 Student Athletes

Cc:

Subject: Student Athlete Survey

Research Informed Consent - 2016-2017

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Will data about my participation be confidential?

Your information will be strictly anonymous and confidential, used only for research purposes.

Why do I need to give my student (net) ID?

Your student ID is only given so the principal investigator can link your information to the study and the student ID will never be shared at any time in the study. From your student ID, the principal investigator will seek the following information only: your current GPA, EGPA, scholarship, age, sex, team, minority, LDS, year in school (freshman, sophomore, junior, or senior), transfer, return missionary, dependent children, native language, and first generation college student. This information will only be used to determine differences in groups as a whole and never tied to you individually.

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If you choose not to participate in the study, there will be no consequences to your athletic eligibility. In addition, if you choose not to participate, you are still eligible to receive all academic services provided in the Student Athlete Academic Center.

Who can I contact if I have questions about this research?

Trevor Wilson (Principal Investigator)
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I accept the terms and conditions and would like to participate in the survey.

Yes

No

Thank you for your consideration of this project.



APPENDIX D

Instrument

Please answer the following questions. Please be honest in your feedback – all responses will be anonymous.

What is your BYU net ID?

I usually trust people until they give me reason not to trust them.

- Strongly Disagree
- Disagree
- Neither Agree nor disagree
- Agree
- Strongly agree

Trusting another person is not difficult for me.

- Strongly Disagree
- Disagree
- Neither Agree nor disagree
- Agree
- Strongly agree

My typical approach is to trust new acquaintances until they prove I should not trust them.

- Strongly Disagree
- Disagree
- Neither Agree nor disagree
- Agree
- Strongly agree

My tendency to trust others is high.

- Strongly Disagree
- Disagree
- Neither Agree nor disagree
- Agree
- Strongly agree