IMPACT OF INTERCOLLEGIATE ATHLETICS IN RELATIONSHIP TO
THE PROSOCIAL BEHAVIOR OF GIVING OR VOLUNTEERING
AMONG ALUMNI OF NCAA DIVISION II INSTITUTIONS

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ABSTRACT

Each year, charitable giving to United States postsecondary education provides essential resources in maintaining America’s edge as one of the top higher education systems in the world. The importance of financial giving at the college and university level continues to grow on an annual basis as governmental support for higher education has declined over the last three decades. In response to the reduction in government support for higher education, institutions have increasingly turned to private donors, corporations and graduates to supplement this revenue loss. One of the largest sources of external financial contributions comes from alumni, which has led schools across the country to focus on better ways to build relationships with graduates.

Studies focusing on charitable giving in higher education demonstrate a positive relationship between organizational identification with the propensity for alumni to give back to their alma mater. Research shows that engagement through organizational identification and satisfaction positively relates to giving and other prosocial behaviors. In addition, studies describe how big-time college athletics plays a part in creating a sense of community that transcends the participants of the sport, creating a campus culture that institutions rally around. At same time, interest in following college sports continues to increase, evidenced by the massive NCAA television contracts reaching billions of dollars.

In higher education literature, research on intercollegiate athletic giving generally focuses on the relationship between winning athletic teams and gifts or on the motivations for donors to give specifically to athletics. Few studies investigate the indirect impact of college sports in
providing an opportunity to become engaged with an institution, which leads to giving and other prosocial acts such as volunteering, attending events and serving in advisory roles.

With the enormous interest in intercollegiate sports and the increasing need for higher education institutions to garner more external financial support, this study investigates the impact of intercollegiate athletics in relationship to prosocial behaviors among alumni. Additionally, the study focuses on a specific group of postsecondary institutions, examining schools at the NCAA Division II level, as current literature tends to study only schools at the NCAA Division I and III levels.
DEDICATION

This dissertation is dedicated to everyone who helped and guided me through the trials and tribulations of performing this research study. In particular, my mom and late father, who sacrificed much in their lives in order to provide me, a first-generation college student, the opportunity to obtain higher education and instilling its importance. In addition, thanks to all my close friends who stood by me throughout the time taken to complete this project.
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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>AC</td>
<td>Affective Commitment</td>
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<tr>
<td>AASCU</td>
<td>American Association of State Colleges and Universities</td>
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<td>CASE</td>
<td>Council for Advancement and Support of Education</td>
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<td>CAE</td>
<td>Council on Aid to Education</td>
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<tr>
<td>a</td>
<td>Cronbach’s index of internal consistency</td>
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<td>b</td>
<td>Beta coefficient</td>
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<tr>
<td>β</td>
<td>Standardized Beta value</td>
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<tr>
<td>df</td>
<td>Degrees of freedom: number of values free to vary</td>
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<tr>
<td>F</td>
<td>Fisher’s F ratio: A ration of two variances</td>
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<tr>
<td>IPEDS</td>
<td>Integrated Postsecondary Education Data System</td>
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<tr>
<td>M</td>
<td>Mean: the sum of a set of measurements divided by the number of measurements</td>
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<tr>
<td>MCSD</td>
<td>Marlowe-Crowne Social Desirability scale</td>
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<td>N</td>
<td>Number of cases</td>
<td></td>
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<td>OID</td>
<td>Organizational Identification</td>
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</tr>
<tr>
<td>OS</td>
<td>Organizational Satisfaction</td>
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<td>p</td>
<td>Probability associated with the occurrence</td>
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<tr>
<td>PSB</td>
<td>Prosocial Behavior</td>
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</tr>
<tr>
<td>r</td>
<td>Pearson product-moment correlation</td>
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<tr>
<td>R²</td>
<td>Multiple correlation squared; measure of strength of association</td>
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<tr>
<td>SD</td>
<td>Standard deviation</td>
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</tr>
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<td>SDB</td>
<td>Social Desirability Bias</td>
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<tr>
<td>SDR</td>
<td>Social Desirability Response</td>
<td></td>
</tr>
<tr>
<td>t</td>
<td>Computed value of t test</td>
<td></td>
</tr>
<tr>
<td>≤</td>
<td>Less than or equal to</td>
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<td>=</td>
<td>Equal to</td>
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Several people deserve thanks for helping me achieve this goal. Foremost, I thank God for allowing me the physical and mental abilities, guidance and determination to be successful in realizing this accomplishment. I thank my mom and brothers for always providing encouragement along with my dear friend Dina who helped me through the tough times with advice, reassurance and support through the arduous process of completing a dissertation. In addition, I thank all my of work colleagues for always providing help and inspiration.

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CHAPTER 1

INTRODUCTION

Education is the engine that drives the world and our nation. A United States study from the National Bureau of Economic Research, collecting data between 1950-2010, finds each additional year of education translates into at least a two percent increase in economic production (Whitehurst, 2010). Similarly, an increase in educational level positively associates with increased income over one’s life as bachelor’s degree recipients earn almost double the amount in lifetime earnings. Figures show a four-year degree graduate earning on average $2.1 million compared to $1.2 million for the high school graduate. In addition, higher levels of education positively relate to well-being in terms of health and civic engagement (Habley, 2004). The benefits of higher education extend to more than just the individual recipient of a postsecondary degree. A positive correlation exists between higher education and the community in that a highly educated public creates more earnings in the workforce, which results in governments generating increased tax revenue. “Over a lifetime, each (four-year graduate) generates $177,000 more in tax revenue than those with only a high school degree” (Cheng, 2010).

Voluntary support to higher education played an important role in the creation of the United States higher education system and philanthropic studies scholar Peter Dobkin Hall contends that “No single source is more responsible for the emergence of the modern university in America than giving by individuals and foundations” (Hall, 1992, p. 403). Through philanthropic efforts, the roots of American higher education were established during the colonial times, and the practice has “provided a margin of excellence,” allowing the system to be
considered the best in the world (Drezner, 2011). Philanthropy provided access to higher education to blacks and women in the early 1900s with the establishment of schools, and the creation of academic scholarships provided many poor people with the life-changing opportunity to obtain higher education. The tradition of charitable giving to United States postsecondary education continues today and provides the essential resources in maintaining America’s edge as the leading higher education system in the world. However, the importance of giving to maintain this status continues to increase as governmental support for higher education has declined over the last three decades (Weerts & Ronca, 2012).

Although state support for higher education increased over the last two fiscal years (AASCU, 2015), the recent economic challenges from the “Great Recession” caused extreme budget cuts and higher tuition and fees at colleges and universities across the country, elevating the importance of philanthropy to an even higher crescendo, as “today it is central to the mere existence and daily function of academe” (Drezner, 2010, p. 194). The importance of a better understanding of voluntary support to higher education will continue particularly with the fact that Americans will transfer at least $41 trillion in bequests, philanthropy and taxes between 1998-2052. Schervish and Havens (1993) suggest that at least $6 trillion of that funding will be donated to charity in what they describe as the “great wealth transfer.”

**Government Budget Reductions.** After the Great Recession of 2008, public colleges and universities continue to function in an unpredictable fiscal situation, as state governments across the country struggle with funding issues. Douglass (2010) states simply that “How state budgets go, so goes U.S. higher education” (p. 2). With the U.S. still trying to recover from what is described as the worst economic downturn since the Great Depression, the recession’s effects had a profound impact on state governments, which caused drastic reductions in funding for
higher education. The College Board reports that state support for higher education declined 25% over five years, spanning from FY2007-FY2012 (AASCU, 2013). With state funding being such an important component of public colleges and universities, comprising almost 60% of the entire budgets in FY2009, the cuts were staggering. The effects of the economic situation on higher education would have been worse had the American Recovery and Reinvestment Act not provided relief in stimulus funds to postsecondary education sector (AASCU, 2011). Public higher education has experienced budget cuts in the past but the difference in the recent round sets forward the suggestion that this will be the new norm, “leaders can no longer simply wait out budget cuts until state funding is restored. Such an attitude will be detrimental to institutions operating in this new environment. Today, there is no promise that state money is ever coming back” (Doyle & Delaney, 2011, p. 10).

**Charitable Giving to Higher Education.** Another higher education funding area that felt the effects of the Great Recession is voluntary support to higher education through charitable giving. The Council on Aid to Education (CAE) reported in their 2012 Voluntary Support of Education (VSE) survey that charitable giving still has not returned to the 2008 levels of yearly giving. In 2008 and before the collapse of the housing market, giving to higher education hit a historical high of $31.6 billion, and four years later in 2012, voluntary support had not returned to those levels, coming in at $31 billion (Council on Aid, 2013). For more than two decades, charitable giving by alumni has ranked among the top areas for voluntary support to higher educations, generally representing 25% of all gifts to an institution. The effects of the weak economy have continued to affect giving by graduates, as the overall amount of alumni donations dropped by 1.3% in 2012 and the overall percentage of alumni giving back dropped from 11.6 to 11.2% (Council on Aid, 2013).
**Student Debt Crisis in Higher Education.** With the financial cuts by state governments and the reduction in voluntary support for education due to the recession, students have felt the pinch in making up the difference, paying increased tuition and fees to attend college and universities. At four-year public institutions, tuition and fees have more than doubled since 1987, while state funding for higher education has decreased by more than 30% over the same time frame (AASCU, 2013). Currently, a growing debate exists on the cost of education and how increased tuition and fees have saddled students and graduates in debt. It is not uncommon to hear stories of students in debt by more than $50,000 for bachelor degrees and close to $100,000 or more for advanced degrees (Draut, 2009).

College student loan debt has skyrocketed to unprecedented levels in recent years, and to add to these daunting figures remains the fact that the unemployment rate hit 8.7% for college graduates in 2009, the highest rate on record (Cheng, 2010). As tuition and fees have risen, Draut (2009) describes one of the major reasons that recent graduates cannot get ahead is because the cost of education has outpaced the allocation of Pell Grant funding by the federal government, meaning needy students are having to borrow more to cover college costs. “[Pell Grants] were originally intended to cover 75% of the cost of going to college for low-and moderate income students. The maximum Pell Grant today covers about one-third of the cost of four-year college. And only 22% of recipients get the maximum” (Draut, 2009, p. 31). Another trend that adds to the student debt dilemma relates to the increased emphasis on state grant programs providing more and more merit-based aid instead of providing need-based programs (AASCU, 2013).

**Intercollegiate Athletics in Higher Education.** Founded by student life departments and run by students in the early 1900s, the popularity of intercollegiate athletics grew quickly on
campuses across the country, and the appeal to students, alumni and the general public has not waned. The development and interest in college athletics grew quickly, and over time college spectator sports have matured into being a unique staple in the culture of the American higher education system (Brubacher & Rudy, 2004). With the exposure of collegiate sports many “college presidents and NCAA officials often speak in grand terms about sports as a good way to educate the public about colleges. Football and men’s basketball are said to be the front porch of the university” (Suggs, 2003, p. A17).

While intercollegiate athletics have been a fixture on college campuses for more than 100 years, the size and scope of athletic contests continue to grow. In 2012, almost 49 million fans attended NCAA football games across the country, which included the Southeastern Conference attracting 7.5 million fans, a new record for an individual conference (Johnson, 2013). The popularity of intercollegiate sports across America seems to rise annually, reflected in the enormous revenue generated by the top NCAA Division I athletic programs. In 2013, the University of Texas athletic department reported $165.7 million in revenue to go along with $146.8 million in expenses to lead the nation. The University of Alabama generated the most revenue from a school in the Southeastern Conference and the third most overall, generating $143.7 million to go along with $116.7 million in expenses. Of the generated revenue, Texas took in $37.3 million in voluntary contributions to its athletic department, while Alabama received $34.2 million in charitable giving to its sports program (USA Today, 2015).

According to Fulks (2014) expenses and revenues in intercollegiate athletics are both increasing but expenses are increasing at a much higher rate. At the NCAA Division I Football Sub-Division (FBS) level, the Knight Commission (2010) reports that athletic programs spent up to 11 times more on academics for a full-time enrolled student compared to a regular student.
College football coaching pay, after being adjusted for inflation, has skyrocketed as Clotfelter (2011) finds that in nearly 25 years (1986-2010), these salaries have increased 750%. During the same period, the salary for a full college professor rose 32%.

A common justification by institutions on the importance of college athletics lies in the benefits, both direct and indirect, that college sports afford. Clotfelter (2011) explains how intercollegiate athletics provide students and alumni a team to cheer for and creates an opportunity to develop a common identity among supporters, "Sports teams can foster a deep sense of community and social solidarity, even when those teams lose more often than they win" (p. 9). However, with the increasing costs of fielding intercollegiate athletic teams and the tightening of higher education budgets, these benefits are receiving increased scrutiny.

NCAA revenue and expenditure reports provide considerable indications that most athletic programs operate in the red, especially at the NCAA Division II level. In 2012-13, only 25 out of the top-tier Division I programs earned net positive revenues from their football and basketball programs, which are considered the most profitable college sports (Fulks, 2014). At the Division II level, the numbers show even more revenue loss across the board. In 2012-13, the annual median net revenue loss for schools with football reached $4.8 million, up from a $2.36 million loss a decade ago. For institutions without football, their athletic programs reported a $3.8 million loss, up from $2 million 10 years ago (Fulks, 2014). This data directly contradicts what most in the general public believe, as a survey in 2006 finds that 76% of Americans thought college athletic programs were profitable, along with 84% believing that successful college teams generate increased alumni donations (Knight Commission on Intercollegiate Athletics, 2006). With this misconception in mind, this study contributes to the knowledge base on the relationship between intercollegiate athletics and alumni giving.
Importance of Voluntary Support to Higher Education. With state and federal governments overextended more than ever and students accumulating more debt to offset increasing tuition and fees, the importance of the voluntary support is paramount in providing an additional revenue stream to higher education. Wesibrod and Asch (2010) describe how the combined reduction in revenue from state funding, tuition-related financial aid and the drop in endowments has created a “Perfect Fiscal Storm.” They suggest, “Endowment losses; tightened credit; and shortfalls in tuition, donations and state funding—each is manageable, but all have come at the same time. No one of them has caused a serious problem; together, they have” (p. 29).

Gifts by alumni provide a significant source of revenue for colleges and universities, and the importance of alumni giving will only increase in the future (Clotfelter, 2001). Mann (2007) indicates the importance of emotional attachment in leading to charitable giving, and intercollegiate athletics provides avenues for students, alumni and community members to become emotionally attached to a college or university. Voluntary support to intercollegiate athletics continues to grow, and Stinson and Howard (2010b) contend there are a number of intangible benefits from intercollegiate athletics, including how college sport “acts as a socialization agent and ‘window’ to the institution for both alumni and non-alumni” (p. 319). Clotfelter (2001) suggests that the two responses that garnered the strongest emotional link among graduates were either a change in emphasis from teaching to research at an institution or the elimination of intercollegiate sports at their alma mater. Turner, Meserve and Bowen (2001) provide additional support on the indirect benefits of intercollegiate sports on alumni, stating that besides reunions, athletic events provide the most opportune occasion to bring graduates back on campus and that spectator sports allow alumni to view the university in positive terms.
Purpose of Research

The purpose of this research is to study the impact of intercollegiate athletics in relationship to prosocial behavior of alumni at a college or university. The study focuses specifically on NCAA Division II intercollegiate programs, as this classification lacks scholarly interest. Martinez, Stinson, Kang and Jubenville (2010) found that “the vast majority of studies examining athletic success have been conducted at the NCAA I-A level” (p. 45). In the current study, a prosocial behavior by an alumnus occurs when a graduate becomes actively engaged to the institution. According to O'Reilly and Chatman (1986), the psychological foundation for a person or a graduate to remain connected to an organization or an institution “may be predicated on three independent foundations: (a) compliance or instrumental involvement for specific, extrinsic rewards; (b) identification or involvement based on a desire for affiliation; and (c) internalization or involvement predicated on congruence between individual and organizational values” (p. 493).

In measuring prosocial behavior among alumni, the study uses a social identification model developed by Tidwell (2005) that incorporates three concepts to determine prosocial behavior. The framework for the model originates from social identity theory developed by Tajfel (1985) and Turner (1982), and the theory suggests people attempt to categorize themselves and others based on membership, affiliation, age, gender, culture and other social characterizations (Tajfel & Turner, 1985). Tidwell’s model includes Mael’s (1988) organization identification notion, which measures the connection or “perceived oneness” of an individual to an organization. In addition, the study adapts Meyer and Allen’s (1984) affective commitment concept to measure the strength of commitment to an organization, and finally the Brayfield and Rothe (1951) satisfaction model to gauge the satisfaction level among graduates (Tidwell, 2005,
A few examples of common prosocial behaviors include: when a graduate makes financial contributions to the college or university, remains connected to the institution by regularly attending functions, events and sporting competitions, volunteering time and energy to the institution, serving in leadership and advisory roles for the school or acting as an informal recruiter for the school by recommending the institution to others.

The purpose of this particular study is to learn if intercollegiate athletics factors into alumni becoming actively engaged with the institution and determine if those factors can be used to encourage other groups of alumni to become connected with the college or university.

Research (Clotfelter, 2003; Diehl, 2007; Hanson, 2000; Harrison, Mitchell & Peterson, 1995; Hoyt, 2004; Hunter, Jones & Boger, 1999; Lawley, 2008; Taylor & Martin, 1995; Wunnava & Lauze, 2001) on alumni giving shows that engaged alumni tend to give at a more consistent rate, and studies also show the impact of how emotional attachment creates connections to a college or university. Brittingham and Pezzullo (1990) in their formative work, the “Campus Green: Fundraising in Higher Education,” state that the “best predictors of alumni giving are an emotional attachment to the school” (p. 40). A reasonable assumption from the nature of intercollegiate athletics affords that these activities generally create an emotional attachment to the institution, creating prosocial behaviors by graduates. Stinson and Howard (2010b) suggest that intercollegiate athletics act as a “socialization agent” and “window” for donors to connect with the institution, and sports “serve as an important introduction to the broader mission of the institution. Interestingly, this often appears to be true for alumni as well as non-alumni donors (p. 318).” A number of studies (Baade & Sundberg, 1996; Brittingham & Pezzullo, 1990; Litan, Orszag & Orszag, 2003; Stinson & Howard, 2008; Tucker, 2004; Turner, Meserve, & Bowen, 2001) have examined the relationship between athletic success and giving but few have
investigated the impact athletics has on creating prosocial behaviors, leading to charitable giving in higher education. Both McCormick and Tinsley (1990) and Roy, Graeff, and Harmon (2008) contend that college athletics provides intangible benefits to college and universities such as exposure through communications and awareness.

In addition to the lack of studies focusing on athletic giving at the NCAA Division II level, this study also addresses the finding that a large bulk of the research on indicators of athletic giving review the impact solely based on success of the institution’s football or basketball teams, excluding the impact of other intercollegiate athletic teams on prosocial behavior. Martinez et al. (2010) found “a relatively small percentage of studies in the field of intercollegiate athletic relationship and giving, including a smaller percentage of studies that examine this relationship in terms of sports other than football and basketball and across differing NCAA classification levels” (p. 46).

From an alumni giving perspective, this research addresses the fact that a vast amount of literature on alumni giving patterns examine graduate behavior at NCAA Division I and Division III schools with little emphasis on the study of graduates from more non-traditional schools (Clotfelter, 2003). The current research on alumni giving consistently shows a positive relationship between graduate satisfaction and the factors that lead an alumnus in making a financial gift to his or her respective school (Clotfelter, 2003; Harrison et al., 1995; Pike, 1994; Sun, Hoffman & Grady, 2007), however; a gap in the literature exists based on institution type, causing difficulty for researchers and practitioners to generalize the findings to all institutions. Similar to previous research, the results of this study add to current knowledge pertaining to the relationship between a sense of satisfaction and whether a graduate will contribute financially to his or her alma mater. Additionally, the research provides a rare examination at how alumni
satisfaction levels and intercollegiate athletics interrelate at NCAA Division II schools, an institution type that has been excluded in the current literature.

**Significance of Study**

The overarching research question for the study focuses on the impact of intercollegiate athletics in relationship to prosocial behavior among graduates, specifically at NCAA Division II institutions. Within this overarching question, several particular indicators are examined to determine if a relationship exists between intercollegiate athletics and alumni giving. In conducting this study, the goal is to answer the following research questions:

1. **What is the relationship between organizational identification to an institution through intercollegiate athletics and prosocial behavior among graduates of post-secondary NCAA Division II institutions?**

2. **Is there a relationship between affective commitment through intercollegiate athletics and prosocial behavior by alumni at post-secondary NCAA Division II institutions?**

3. **Does a relationship exist between satisfaction with intercollegiate athletics and prosocial behavior by graduates at post-secondary NCAA Division II institutions?**

4. **What is the impact of intercollegiate athletics and the relationship of alumni prosocial behaviors such as financial giving or volunteering at a NCAA Division II institution?**

5. **If a relationship is determined between intercollegiate athletics and prosocial behavior among alumni of NCAA Division II institutions, what impact does institutional-type and demographic variables have on the relationship?**

    Based on research findings that correlate organization identification and satisfaction with alumni giving, the research expects to show similar results with a positive relationship between organizational identification to intercollegiate athletics and alumni giving. Mael and Ashforth
(1992) and Mann (2007) identified the importance of organizational identification in alumni engagement, and several studies (Diehl, 2007; Hanson, 2000; Harrison et al., 1995; Hoyt, 2004; Hunter et al., 1999; Lawley, 2008; Wunnava & Lauze; 2001) show how graduates become connected to their alma mater through university sponsored activities and events. In addition, a number of studies in the athletic giving literature (Coughlin & Erekson, 1984; Daughtrey & Stotlar, 2000; Sigelman & Bookheimer, 1983; Stinson & Howard, 2007; Stinson & Howard, 2008; and Wunnava & Okunade, 2013) provide support to how people often connect to successful winning teams, and the same would be applicable for alumni engaging with the university through athletics from an organizational identification perspective. Because of the opportunity to connect with an institution emotionally through intercollegiate athletics (Mahony et al., 2003; Stinson & Howard, 2010b; Tsiotsou, 2007), the research also expects to find a positive relationship between the affective commitment factor in leading to prosocial behavior. Compared to the organizational identification and affective commitment factors, the research anticipates the satisfaction variable to be less conclusive due to the fact that most of the research on the relationship between institutional satisfaction and alumni giving (Clotfelter, 2003; Harrison et al., 1995, Pike, 1994; Sun et al., 2007) contends that the positive relationship exists based on their overall experience. Along with the prosocial behavior outcome variable and the organizational identification, affective commitment and satisfaction independent variables, the research also carefully examines the relationship of graduate demographics and institutional-type data with the variables.

An important finding for the study is whether a relationship exists at NCAA Division II institutions, since these programs operate under the radar compared to the traditional NCAA Division I programs. The membership of NCAA Division II programs comprise approximately
300 colleges and universities, but tend to be more non-traditional in nature, as the institutions place less emphasis on intercollegiate sports (NCAA, 2014b), whereas “most Division I institutions choose to devote more financial resources to support their athletics programs, and many are able to do so because of the large media contracts Division I conferences are able to attract” (NCAA, 2014a). The reason for the different classifications based on institution type, public and private, and whether schools offer football is based on findings from the literature that alumni from private schools tend give back more financially (Baade & Sundberg, 1996; Brooker & Klastorin, 1981; Shulman & Bowen, 2001) and that football success (Martinez, Stinson, Kang & Jubenville, 2010) is an important factor in giving to intercollegiate athletics.

In regards to examining the more non-traditional NCAA Division II institutions, Drezner (2011) suggests that “a better understanding of how to engage non-traditional donors is needed” (p. 86) and adds that few studies examine engagement and motivations between alumni and the university from a prosocial framework. He contends that the literature lacks an understanding on the relationship between alumni giving of non-traditional students as studies in the past have focused almost entirely on “wealthy white men” (p. 87). Concerning the impact of athletics in association to prosocial behavior, Martinez et al. (2010) found that “disparate research designs and conflicting results have left researchers lacking the ability to confidently comment on how athletic programs influence donors to higher education” (p. 36). The researchers specifically point to the lack of “quantitative-based research examining intercollegiate athletics and giving” (p. 46). Additionally, Clotfelter (2010) suggests a lack of the literature in the area, contending:

a similar lack of attention to the role of intercollegiate athletics characterizes most of the scholarly research about universities ... to read most scholarly research about American higher education, one would conclude that commercial college sports did not exist at all (p. 12-13).
Despite the contentions about the lack of clear empirical findings regarding the impact of intercollegiate athletics on institutions of higher education, antidotal evidence on the importance of college sports often resonates from college leadership, evidenced by the University of New Mexico president stating, “One of the most effective ways to market your university nationally is to have a really quality athletic program. It helps recruit faculty, students, and donors. It helps with the image of the whole university” (Zengerle, 2010, p. 62).

**Organization of the Research**

As illustrated, the importance of understanding the motivation of graduates to provide voluntary support to higher education is important based on the uncertain financial support from the state and federal government, unstable endowments and the increasing amount of debt that students are being forced to encumber (AASCU, 2013). Despite the negative effects of the economy and the resulting strain on higher education, Drezner (2010) suggests “Perhaps the upside of an economic downturn – save program reduction, furloughs and retrenchment – is that scholars, administrators, and legislators are more likely to think about the centrality of philanthropy and fundraising to academe” (p. 194-195). Like it or not, intercollegiate athletics in America has become a staple on campuses and many “universities are best known across the country, if at all, not for their academic programs, but for their football teams … this remark is as true today as it was when it was written, more than 80 years ago” (Clotfelter, 2010, p. 5).

The following study is divided into five chapters, and Chapter 1 of the study presented a statement of the problem, the reason for the study and the importance of the research given the limited amount literature on the impact of intercollegiate athletics and the relationship of prosocial behaviors at NCAA Division II schools. The opening chapter also provided a brief description of the theoretical lens for the study, as the research employs a prosocial behavior
framework. In Chapter 2, the literature review analyzes the topic from both an alumni and intercollegiate athletics perspective. The chapter also provides a history of voluntary support to higher education. The methods for this quantitative research is presented in Chapter 3 of this study, specifying the research design, the selection sample, data collection and data analysis procedures. With the lack of studies at the NCAA Division II level, the research focuses on that particular type of institution, both public and private. The results are presented in Chapter 4 of the study, while Chapter 5 provides a discussion of the research, limitations of the study and areas for future study.
CHAPTER II
LITERATURE REVIEW

Public and private higher education in the United States relies heavily on voluntary financial support from a number of interested groups and principals, which include alumni, foundations, corporations, religious organizations, and community friends. In 2013, these voluntary supporters contributed almost $34 billion to benefit the efforts of post-secondary education in the U.S., according to the Council for Aid to Education (CAE), which prepares the annual Voluntary Support of Education (VSE), a survey on private giving to higher education in the U.S. (Council for Aid, 2014).

For the last 25 years, one of the top areas for voluntary support in higher education is from alumni, as they have ranked at the top or close to the top in total amount contributed. In 2013, financial contributions from alumni accounted for 25%, $9 billion, of all voluntary financial support to U.S. institutions, trailing only gifts from foundations, which accounted for 30% or $10 billion (Council for Aid, 2014). Since alumni giving ranks among the largest areas of voluntary support, the importance of identifying why alumni make financial contributions to a respective institution has become an increasingly important area of scholarly interest. Couple the fact that alumni are among the largest contributors with the recent economic downturn and budget cuts at many institutions, and the importance of identifying motivations for charitable giving rises to even a higher level. Private dollars are now paramount for public higher education, “As state legislatures cut back support for higher education, public colleges and
universities across the country are turning to their alumni, hat in hand.” (Foderaro, 2011, p. A11).

In addition to the direct impact that alumni giving has on charitable contributions at an institution, another impact of alumni contributions relates to the indirect influence it has on foundations and corporations. Many foundations and corporations review alumni giving statistics in the VSE report and various other national rankings, such as the *U.S. News & World Report* college rankings, before making decisions about financially supporting a particular institution. In the *U.S. News & World Report* rankings, alumni giving is defined as an indirect measure of satisfaction by graduates with their respective alma mater (*U.S. News & World Report*, 2014). Because of the large percentage of contributions by graduates and the indirect impact alumni giving has on foundations and corporations in terms of making charitable contributions, the determinants for alumni giving have become incredibly important for both the university policy-maker along with the advancement practitioner. In 2013, these three areas (alumni giving, foundation giving and corporation giving) to U.S. colleges and universities resulted in a combined $24 billion and over 71% of all charitable giving to higher education (*Council for Aid*, 2014).

Historically, private institutions have out-performed public colleges and universities in terms of alumni giving and alumni participation. In 2013, the VSE survey reported similar findings at the research, masters and baccalaureate level institutions. At the research level, private institutions reported a 15.3% alumni participation rate and an average gift of $1,914, compared to 10% participation and a $924 average gift at the public research institution. For master level schools, private institutions had a 10% alumni participation rate and a $754 annual average gift, while public institutions had a participation rate of 5% and an annual average gift of
$336. At the four-year level, private institutions reported a 22% alumni participation rate and an average gift of $1,030, compared to a 6% participation and $699 average gift at the public institution (Council on Aid, 2013). In 2013, alumni giving rose $1.3 billion in total support to higher education but the increase came from a smaller pool of donors as the overall alumni giving participation rate dropped to 8.7% from 9.2% in 2012.

With the importance of alumni giving in higher education established, this chapter begins with an identification of a theoretical framework for studying the impact of intercollegiate athletics in connecting alumni to their respective alma mater. Next, the chapter provides a historical review of fundraising and athletics in higher education along with a description of NCAA Division II athletics, followed by an analysis of literature. The synthesis of literature on the topic includes a detailed investigation of research exploring indicators of alumni giving, the impact of athletic success on philanthropic behavior and motivations for giving to intercollegiate athletics.

**Prosocial Behavior and Social Identity Theory**

In examining motivations that lead to charitable giving from a psychological viewpoint, several researchers (Diamond & Kashyap, 1997; Hogg, 1987; Midlarsky, 1971; Schwartz & Ben-David, 1976) identify prosocial behavior as a theoretical framework to explain philanthropic actions. The concept of prosocial behavior originates from social identity theory developed by Tajfel (1982) and Turner (1985). Social identity theorists contend that individuals tend to categorize themselves “into various social groups, such as organizational membership, gender and age cohort” (Ashforth & Mael, 1989, p. 20). This classification enables individuals to identify with the group and have a perception of “belongingness,” and as the organization’s image improves with increased participation, the social identity of the individual connected to the organization
enhances. Mael and Ashforth (1992) report a direct correlation between college and university graduates who display organizational identification to their alma mater and also those who perform prosocial acts, such as giving back financially and volunteering. According to Eisenberg and Mussen (1989), prosocial behaviors are “voluntary actions that are intended to help or benefit another group of individuals” (p. 3). The researchers explain prosocial actions from the perspective of the organization or recipient of the behavior, differentiating prosocial behavior from altruism, which is a motivation to act regardless of the benefits attained from the behavior.

For this study, the research on prosocial behavior provides a framework in understanding why alumni give back to higher education and whether intercollegiate athletics is a factor in increasing prosocial acts. A number of social psychologists (Eisenberg, 1982; Rushton, 1982; Schroeder, Penner, Dovidio & Piliavin, 1995) contend that prosocial behavior can be learned, which suggests that certain aspects of higher education may provide opportunities for this behavior of giving back to develop. According to Schroeder, Penner, Dovidio and Piliavin (1995), social learning occurs in most instances through observation and the “consequences it produces” (p. 63). The nature of intercollegiate athletics provides several avenues for prosocial behavior from the perspective of both students and graduates. Some of these conditions include the social engagement of attending athletic events, the emotional tie of being connected to an athletic team along with the helping nature demonstrated by giving back financially to support a sports program.

Eisenberg and Mussen (1989) defined the act of giving financially to an organization as a prosocial behavior, but equally important to this study is how college sports develop emotional ties and engagement with a college or university, which is also considered a prosocial behavior. Within both alumni giving and the athletic giving studies, researchers (Brittingham & Pezzullo,
1990; Stinson & Howard, 2010a; Weerts & Ronca, 2007) establish the importance of the emotional tie between the donor and the organization. Weerts and Ronca (2007) confirmed the findings of Mael and Ashforth (1992), showing how an emotional connection to an institution increases the likelihood of charitable giving behavior, while Stinson and Howard (2010a) established the importance of this emotional tie, and how it can mature into important personal relationships with donors of a college or university, cultivating and improving the likelihood of increased charitable giving and a lifelong connection.

During the late 1960s and early 1970s, significant attention was devoted to the study of prosocial behaviors by a number of social scientists and only recently have organizational scientists began to look at the importance of prosocial behavior. Organizational researchers Brief and Motowidlo (1986) provided a similar definition of prosocial behaviors, describing them as activities that are performed to support others and usually consist of acts such as helping, sharing, donating, cooperating or volunteering. The importance of prosocial behavior within the supporters of a higher education organization is further illustrated by Katz (1964), explaining how prosocial behavior increases the likelihood that supporters remain connected with an organization and encourages them to go the extra mile in their support. Similarly, Straw (1983) suggested how supporters demonstrating prosocial behavior toward an organization generally sacrifice some portion of their own interests for the well-being of the organization.

Higher education institutions utilize a variety of means to encourage philanthropic giving, including both intrinsic and extrinsic motivating factors, and several social psychologists (Ahammer & Murray, 1979; Grusec, 1982; Israel, 1978; Moore & Eisenberg, 1984; Rushton, 1975; Smith, Gelfand, Hartmann & Partlow, 1979) found that prosocial behaviors can be strengthened through reinforcement, observing and even discussing charitable giving.
opportunities. In his examination of prosocial behavior, Rushton (1982) suggests that involvement encourages socialization and organizational identity, increasing the likelihood of prosocial behaviors. His findings relate to the alumni giving research (Diehl, 2007; Hanson, 2000; Harrison et al., 1995; Hoyt, 2004; Hunter et al., 1999; Lawley, 2008; Wunnava & Lauze, 2001), which indicates the importance of engagement through general university activities and specific alumni sponsored events, leading to the propensity of donations. Building on Rushton’s (1982) findings, Friedman (2003) adds that as a result of this socialization process, intrinsic motivations have greater influence than extrinsic motivations, while Schervish (1993) suggests how involvement and engagement with an organization are motivating factors in relationship to prosocial behaviors, creating what he coined a “community of participation” (p. 33).

While most prosocial acts toward an organization tend to be positive, Brief and Motowidlo (1986) contend there are times when these prosocial acts can be dysfunctional. These findings relate to the winning and giving literature in intercollegiate athletics, which show conflicting outcomes as some literature (Coughlin & Erekson, 1984; Daughtrey & Stotlar, 2000; Sigelman & Bookheimer, 1983; Stinson & Howard, 2007; Stinson & Howard, 2008; Wunnava & Okunade, 2013) reveals a positive relationship between college athletics and giving, while other studies (Springer, 1974; Stinson & Howard, 2004) show a negative outcome.

Another connection, which links the prosocial framework with postsecondary education, relates to a finding by Smith, Organ and Near (1983), suggesting that prosocial behavior positively correlates with education level, meaning that prosocial acts would tend to be more common in the postsecondary education environment. Similar to education level being an important component in promoting prosocial behavior, a number studies based in social psychology (Aderman, 1972; Isen, Clark & Schwartz, 1976; Rosenhan, Salovey & Hargis, 1981)
reveal how personal disposition positively encourages prosocial behaviors. Specifically, Isen, Shalker, Clarke and Karp (1978) found that people who generally exhibit a good nature remember more positive experiences from past events, increasing the likelihood of performing prosocial acts and helping others within an organization. These findings correlate to the alumni giving research (Baade & Sundberg, 1996; Clotfelter, 2001; Connor, 2005; Harrison et al., 1995; Monks, 2003), which shows how positive student experiences often lead to charitable giving behavior after graduation.

A final variable from the prosocial behavior literature that links to giving in higher education relates to the impact that rewards and reinforcements provide in the process. Skinner (1978) suggests how prosocial acts can be motivated through reinforcement, while Moss and Page (1972) add the importance of a rewards system in encouraging prosocial behaviors. These findings align with the motivational studies for giving to intercollegiate athletics (Billing, Holt & Smith, 1985; Mahony, Gladden & Funk, 2003; Staurowsky, Parkhouse & Sachs, 1996; Verner, Hecht & Fansler, 1998), which cite the importance of benefits, both intrinsic and extrinsic, impacting giving behavior to intercollegiate athletics.

Based on the findings from social identity research (Diamond & Kashyap, 1997; Eisenberg & Mussen, 1989; Hogg, 1987; Mael & Ashforth, 1992; Midlarsky, 1971; Schervish, 1993; Schwartz & Ben-David, 1976) two specific behaviors emerge as appropriate outcome variables in studying the relationship between intercollegiate athletics and prosocial acts among alumni. For this study, a prosocial behavior demonstrates the connection between the graduate and the institution, and from the prosocial literature two measurable actions include the act of making financial contributions and volunteering at a graduate’s alma mater. Prosocial behaviors are defined as actions performed to benefit organizations, and both donating financially and
volunteering to help at a postsecondary institution fit the criteria described in social identity literature (Diamond & Kashyap, 1997; Eisenberg & Mussen, 1989; Friedman, 2003; Hogg, 1987; Katz, 1964; Mael & Ashforth, 1992; Midlarsky, 1971; Organ, 1990; Rushton, 1982; Schervish, 1993; Schwartz & Ben-David, 1976).

**History of Philanthropy in Higher Education**

The systematic practice of philanthropy in all sectors of the United States originates from the early efforts to establish higher education in the American colonies (Cutlip, 1965). The importance of fundraising for both the public and private institution dates back to John Harvard’s 1638 bequest to the country’s first college and the many gifts of colonial benefactor Thomas Hollis to Harvard, and the practice has continued in today’s multi-million dollar campaigns. The early colleges depended on financial contributions for survival, and the impact of philanthropy like donations from Elihu Yale and Nicholas Brown in the formation of Yale and Brown, can be traced in the roots of all of the Ivy League schools (Brittingham & Pezzullo, 1990). Even though a number of the early philanthropic acts represented small gifts, the importance of these donations cannot be underestimated, as they established a culture of giving in higher education, "More important than the size was the fact that higher education and its philanthropic support were planted as ideas and actualities in American soil" (Curti & Nash, 1965, p. 41).

With many early colleges affiliated with religious organizations, most of the early contributions to American colleges focused on the need to educate clergymen and relied on clerics to raise money. Colleges referred to these solicitations for gifts as “subscriptions” (Curti & Nash, 1965). These early gifts accumulated during the period satisfied the initial operational and capital needs from compensating faculty to constructing buildings and purchasing books, since government support was virtually nonexistent at this time (Curti & Nash, 1965). After the
establishment of the early colleges, the United States experienced a rapid expansion of colleges up until the Civil War with almost 200 institutions, thanks in large part to the contributions of wealthy individuals, communities and churches (Curti & Nash, 1965). With such a large increase in schools at this time, Curti and Nash (1965) explained how “the fittest in this competition [for survival] were the institutions that were successful in raising money” (p. 43). Not unlike today, there were several differing and competing motivations for giving to colleges and universities. Philander Chase, founder of several colleges in the Midwest, provides an example of the stern competition for funds, “Place the [college] near my residence, or in the vicinity of my property, or near the town or village that I inhabit, and I will give, liberally give, but otherwise not a cent from my pocket shall you have” (Curti & Nash, 1965, p. 51).

In addition to providing the foundation for many of the first colleges in America, philanthropy also opened the doors to higher education for both women and black students during the late 1800s and early 1900s. The establishment of several women’s colleges, such as Vassar, Smith and Wellesely, resulted from large donations from single individuals. The early origins and roots of many historically black colleges, including Howard, Fisk, Meharry Medical, Virginia Union and Spelman, trace their heritage to the philanthropic work of several religious groups (American Missionary Association, The Freeman’s Aid Society of the Methodist Church, American Baptist Home Mission Society) and organizations, such as the Ford, Carnegie, Peabody and Rockfeller Foundations (Curti & Nash, 1965).

Along with the gifts from wealthy philanthropists, religious organizations and foundations that helped shape the American higher education system, another area of charitable giving that contributed to the development of colleges and universities originated from alumni.
One of the first calls for alumni support, proclaiming the duty of graduates to give back came from University of Michigan President James B. Agnell. In his 1871 inaugural address, he states:

"[the university should] hope that the men she had been sending forth into all honorable callings and professions might testify to their indebtedness to the University by increasing her power and usefulness … Let it not be thought that the aid furnished by the State leaves no room for munificence" (Brittingham & Pezzullo, 1990, p. 8).

With the call for more alumni support at both public and private institutions, the establishment of systematic and organized fundraising programs developed in the 1900s, and included the first attempt by colleges to solicit alumni for financial gifts. The Harvard class of 1881 represented one of the first examples of asking graduates for voluntary support in an organized giving appeal, and the class reciprocated giving almost $115,000 back to the college in 1906. An effort by Yale followed and after taking time to materialize showed positive results in 1910 as “8,000 Yale men were giving close to half a million dollars yearly for running expenses” (Curti & Nash, 1965, p. 202). Other private schools followed over the next 25 years, and a few early alumni fundraising campaigns at public schools occurred on the campuses of the University of Michigan, the University of Wisconsin and the University of Minnesota. An early campaign at Minnesota in 1922 provided funds to build an athletic stadium to commemorate Minnesota’s fallen military veterans. The campaign proved successful with a 90% alumni giving rate. Much of the early alumni giving centered on capital projects such as residence halls, libraries and student centers before graduates introduced the practice of endowing scholarships for students (Curti & Nash, 1965).

At the same time the concept of alumni giving took hold, intercollegiate athletics also burst onto the college campus in the late 1800s, as part of the “collegiate ideal,” and quickly became popular extracurricular activities. In the beginning, undergraduate students controlled
intercollegiate athletics from both an organizational perspective through an athletic association and a funding aspect through student fees. Despite the efforts of determined students to maintain autonomy of intercollegiate athletics, their control dissipated quickly near the turn of the century with the hiring of professional athletic directors and coaches to lead the programs (Thelin, 2004). Once a student-run activity, intercollegiate athletics transitioned from being an extracurricular activity to more of a commercialized sport program during this time, outside the control of both students and academic officials. Shulman and Bowen (2001) content that “no other historical development in intercollegiate athletics has been as influential, or as subtle, as the progressive institutionalization of the athletic clubs that students once ran” (p. 9). In addition to the shift to professionally-run intercollegiate athletic programs, another important development occurred with the formation of the National Collegiate Athletic Association (NCAA) in 1906. Originally known as the Intercollegiate Athletic Association of the United States (IAAUS), the governing body was founded to protect students from the rough nature of football that had resulted in several deaths and to institute common rules for member schools (NCAA, 2014a).

The popularity of intercollegiate sports, especially football, grew quickly as colleges and universities built huge stadiums across the country in the booming 1920s. Even as the nation experienced the harsh economic setback of the stock market crash in 1929, university officials continued “to accommodate alumni and [the] public zeal for the building of football stadiums” (Thelin, 2004, p. 210). An example at Southern Methodist University represented this fervor as the school’s trustees docked faculty salaries to pay off the debt from construction of a football stadium that was approved earlier in the decade. During this time, college presidents either yielded to the pressure or openly supported a strong commitment to football in hopes of attracting students or raising money for the institution. One of the first reports questioning the
relationship between successful intercollegiate athletics attracting new students and donors emerged from the Carnegie Foundation in its Bulletin No. 26, stating: “The notion that winning athletic teams bring the college increased attendance, contributions for endowment and for academic purposes, or higher reputation among those whose good opinion is worth having, is erroneous” (Marts, 1934, p. 14-15).

After World War II and during a large expansion of higher education in the 1950s and 1960s, voluntary financial support reached the “golden age” of fundraising for colleges (Kelly, 1991). As higher education became more accessible to a broader group of students, more graduates became available and willing to give back to their respective schools. In 1962-63, the Council on Aid collected data from over 1,000 institutions and found that alumni support was the leading category of voluntary giving to colleges and universities (Curti & Nash, 1965). During this same time, public institutions received increased funding from the government sector. From the early 1930s to the late 1950s, state support for higher education skyrocketed by more than 800% in response to new institutions and programs (Moos & Rourke, 1959). Along with the increase in governmental support, colleges and universities began to receive corporate support for higher education. These donations, which were nonexistent until around 1935, increased to $38 million in 1940, $70 million in 1953, and $950 million in 1970 (Ishoy, 1972). With the increase in charitable giving from alumni, foundations and corporations, the need for professional fundraising staffs began to emerge on campuses across the country. By the 1960s, most colleges recognized the need and created advancement divisions, staffed with fundraisers and a vice-president for development who reported directly to the president (Thelin, 2004).

After unprecedented growth post World War II, the 1970s signaled a reduction in higher education philanthropy due to a decline in the economy and falling enrollments with the
graduation of the baby boomers. The trend continued throughout the 1970s and into the 1980s, and with this downward turn, the importance of campus development offices grew as fundraising activities became increasingly specialized and the need for private dollars became paramount (Brittingham & Pezzullo, 1990). As legislators slashed state budgets, higher education became a prime target for cuts, and state officials deemed postsecondary spending discretionary in comparison to allocations for the prisons, health care and primary and secondary education (Wellman, 2010). In 1973, intercollegiate athletics experienced a major modification as the NCAA structure changed with the implementation of differing competitive divisions. The governing organization created three different levels (Division I, II, III) for member schools with a different emphasis on each division. Another important development for college athletics occurred in the early 1980s when the NCAA began administering women’s athletics programs (NCAA, 2014a).

Though the U.S. economy improved in the 1990s, the dependence on voluntary support for education continued in large part due to a lack of federal and state funding of post-secondary education. With an increased emphasis on professional development, coupled with a booming stock market in the late 1990s, voluntary support for higher education hit all-time highs in total dollars and in the percentage of donors. By 1998, individuals contributed almost $21 billion to colleges and universities, representing more than 10% of all charitable donations in the United States (Hanson, 2000). In the early 2000s, charitable giving to higher education suffered a slowdown in large part due to the U.S. stock market’s correction after the dot-com bubble. Voluntary support for higher education rebounded quickly after the market downturn and the traumatic effects of 9/11, primarily due to the resurgence in the housing market, as giving to higher education soared to a historical high of $31.6 billion in 2008 (Council for Aid, 2013).
However, the recovery was short-lived with the collapse of the housing market later that year, which resulted in massive reductions in state support for higher education and a decline in voluntary support. This forced institutions to increase tuition, slash budgets and implement hiring freezes and furloughs for faculty and staff (Drezner, 2010).

**Background on NCAA Division II Athletics.** The NCAA Division II classification was founded in the 1970s and formed from an earlier college division that comprised what is now both Division II and Division III institutions. An important impetus for the creation of the Division II classification was to keep “athletic budgets in good proportion to the total institutional budget” as many Division II programs are integrated into a school’s overall budget similar to other departments on campus (NCAA, 2015a). Currently, there are more than 300 NCAA Division II intercollegiate programs across the country, including one in Canada and three in Puerto Rico, which are the only NCAA schools outside the United States. Ninety-thousand student-athletes participate athletically at the Division II level, and a majority of the institutions have less than 2,500 students with only a few having an enrollment as high as 15,000 students. From an institutional-type perspective, the classification is evenly split between public and private schools (NCAA, 2014c).

A key distinction between the NCAA Division II model compared to Division I and Division III relates to the financial scholarship opportunities available for student-athletes. The Division II classification operates in what is described as a “partial scholarship model,” which allows “student-athletes to fund their college experiences through a mix of athletics scholarships, academic aid, need-based grants and/or employment earnings” (NCAA, 2014b), and few student-athletes receive full athletic scholarships at this level (NCAA, 2014d).
An example of this model is in the sport of football where NCAA Division II schools can offer only 36 total athletic scholarship equivalences, while the Division I football level programs can offer 85 full athletic scholarships and the Division III level programs cannot award any athletic aid. Another difference lies in the number of sports that schools in each classification are required to sponsor. Division II must sponsor at least five sports for men and five for women and two of these sports must be team sports, while Division I schools must offer more (NCAA, 2014c). At the NCAA Division II level, sports compete in a geographic region, allowing schools to reduce travel, manage expenses and limit the amount of missed classroom time for student-athletes. Division II is comprised of eight regions throughout the country (Atlantic, Central, East, Midwest, South, Southeast, South Central and West) and 24 athletic conferences. Each region consists of approximately three conferences, and each conference usually has between 8-to-16 schools (NCAA, 2014c).

Since few student-athletes at the Division II level reach the professional level in sports, the NCAA describes the experience as a “comprehensive program of learning and development in a personal setting … [it] provides growth opportunities through academic achievement, learning in high-level athletics competition and development of positive societal attitudes in service to the community” (NCAA, 2015b). The NCAA states that Division II student-athletes generally graduate at a 7% percent higher rate than the total student population at Division II institutions. The athletic teams usually feature a number of local student-athletes, and without the media attention of Division I athletics, Division II athletic events are affordable and provide fan-friendly environments (NCAA, 2014c).

With the lack of media attention and revenue-generating opportunities, Division II athletics tend to operate closer to the National Junior College Athletic Association (NJCAA)
model. Horton (2009) describes the importance of NJCAA athletics in “Class and Cleats: Community College Student Athletes and Academic Success,” stating how community college athletics provide a “valuable experience for student participants and facilitate the continued desire to pursue academic endeavors beyond sports … athletic programs at the community college are an extension of learning opportunities that cannot be measured by dollars and cents” (p. 25).

Alumni Giving in Higher Education

In a review of literature for the voluntary charitable support at post-secondary institutions in the U.S., considerable research focuses on the relationship between alumni and their propensity to make a gift to their respective alma mater. Weerts and Ronca (2008) state “predicting voluntary behaviors, such as charitable giving, is a deeply complex issue predicted by an array of sociological, economic, and psychological variables” (p. 275). Likewise, Okunade, Wunnava and Walsh (1994) suggest that predicting donative behavior is not determined by a single theory or model, which proves consistent with literature on the topic. Baade and Sundberg (1995) indicate that “alumni giving is a complex phenomenon” determined by a number of variables including university type, student demographics and institutional development efforts (p. 75), while Belfield and Beney (2000) attribute alumni giving to student outcomes and institutional quality. In an effort to distinguish the differing motives for understanding donor behavior in higher education, Mann (2007) provides a framework from six different theoretical perspectives. The author divides the behaviors by the following concepts: charitable giving, organizational identification, social identification, economics, services-philanthropic and relationship-marketing. Using Mann’s framework, the following section
identifies and connects key thematically related concepts in the literature of alumni giving in higher education.

Charitable Giving Concept and Alumni Giving. From his charitable giving concept, Mann (2007) describes three characteristics that drive philanthropy in higher education, which include: altruism, reciprocity and direct benefits. The first type, altruism, refers to donors interested in giving back out of a sense of obligation with “strong feelings of allegiance and empathy toward the college” (p. 38), usually after the college provided a positive experience for the donor. A number of prior research studies (Baade & Sundberg, 1996; Clotfelter, 2001; Connor, 2005; Harrison et al., 1995; Monks, 2003) support this theory, indicating donors who appreciated and enjoyed their experience at a particular institution, are more likely to support the school with a financial gift. Clotfelter (2001) finds that gifts by alumni were “highly correlated” to a positive impression that the graduate had of the institution and that continued positive interactions were important in developing charitable giving behaviors with graduates. Harrison, Mitchell and Peterson (1995) suggest a similar positive relationship, stating that “intellectual performance and satisfaction” are directly linked, leading to alumni donative behavior (p. 213).

In a study by Baade and Sundberg (1996), a finding demonstrates the importance of “the quality of the experience, as measured by the quality of the student body and instructional spending per student, [in that it] correlates positively with alumni generosity” (p. 80). Monks (2003) adds to the positive relationship between satisfaction and charitable giving stating, “The single biggest determinant of the generosity of alumni donations is satisfaction with one’s undergraduate experiences” (p. 129). A study on alumni giving by Connor (2005) provides more indications on the correlation between satisfaction and graduate giving behavior, showing how
positive student involvement and experience leads to institutional pride and loyalty, which in turn relates to increased donations.

Within the charitable giving concept, Mann (2007) describes the next type, reciprocity, as instances when donors expect a “potential return of some benefit” (p. 38), such as the obligation to give back based on the college or university providing the opportunity for career success. Pike (1994) finds that graduates pleased with their job and compensation tended to be more satisfied with their educational experience, “individuals who were satisfied with the pay they were receiving, and were not looking for another job held more favorable opinions of their college experience” (p. 118). A third area within the Mann’s (2007) charitable giving concept relates to direct benefits received by donors in explaining motivations for gifts. The author describes the motivations for personal benefits as instances when donors make a gift in exchange for having a physical space named in their honor, being named in a college publication or when athletic donors make a gift for preferential seating at athletic events. Harrison et al. (1995) provided support for the direct benefits concept. The researchers suggest alumni give for more than altruistic reasons, stating:

Alumni offices know their graduates generally need to be motivated. While some give because of what the college did for them in the past, others may give because of what they perceive the college will do for them now, or in the future. Donors seem to want the psychic satisfaction that accompanies recognition from their former school—from appearing in a list of names in the alumni bulletin, to receiving free football tickets, to having a scholarship or building named after them (p. 398).

The study adds to the literature on the importance of the exchange of benefits in the process, suggesting that charitable giving in the higher education environment may occur in more of a prosocial type behavior instead of pure altruism.
**Organizational Identification and Alumni Giving.** Another donative concept discussed by Mann (2007) relates to organizational identification motives, where donors feel connected to the college and inclined to support due to this association. Ashforth and Mael (1989) define this identification as “the perception of oneness with or belongingness to an organization, where the individual defines themselves in terms of the organizations in which he or she is a member” (p. 104). A number of studies (Diehl, 2007; Hanson, 2000; Harrison et al., 1995; Hoyt, 2004; Hunter et al., 1999; Lawley, 2008; Wunnava & Lauze; 2001) provide additional support for the importance of organizational engagement through general university activities and specific alumni sponsored events, leading to the propensity of donations.

Research by Harrison (1995) finds that “the most striking result of our study: [reflects] that expenditures on alumni activities have the greatest significance in explaining success” (p. 79). Studies by Hunter, Jones and Boger (1999) and Diehl (2007) add to the literature on the topic and signal the importance of alumni association membership and the propensity to give. Hunter et al. (1999) and Diehl (2007) suggest that membership to the alumni association was the strongest predictor of whether a graduate contributed financially to the institution and in the amount of the gift.

Wunnava and Lauze (2001) found that being attached to the university through participating in alumni reunions played a significant role in giving behavior at a small liberal arts college. Examining alumni giving patterns over a 23-year period, the study indicated that “reunions, both five-year and major, are times of increased giving from alumni” (p. 541). Similarly, studies by Hanson (2000) and Hoyt (2004) reported that alumni are more willing to make contributions to their alma mater if they remained connected to the school through attending alumni association meetings and activities. The research found participation in alumni
activities to be a significant predictor for charitable giving by graduates. Lawley (2008) provided more signs of the positive correlation between alumni involvement and charitable giving, finding a significant relationship between alumni engagement and both alumni giving and volunteering.

In addition to the importance of attending alumni sponsored activities, studies (Dean, 2008; Taylor & Martin, 1995) show a positive relationship between giving and involvement with general university events. A study by Taylor and Martin (1995) indicated that “involvement with the university” was one of the strongest variables differentiating both a donor from a non-donor and also between a high and low contributor (p. 299). Research by Dean (2008) revealed that involvement at any university event positively correlated to giving. The study found that such activities as serving on boards and committees, attending university events and staying connected through the university communications all demonstrate a positive relationship. Additional research (Hanson, 2000; Hunter et al., 1999; Weerts and Ronca, 2009) provided similar empirical findings on the positive relationship between being actively engaged to the college or university and giving. A study by Robinson (1994) added to the literature on the importance of alumni involvement and giving, establishing how both the frequency of gifts and the amounts positively correlated to the actual number of visits to the college or university made by a graduate in a respective year. Similar studies (Dean 2008; Hunter et al., 1999; Shim 2001) also showed a positive correlation between alumni simply visiting their alma mater and making charitable contributions to the institution.

**Social Identification and Alumni Giving.** A third motivational concept for giving described by Mann (2007) refers to social identification theory and how a donor’s affinity to a certain group at the college leads to donative behavior. Several studies (Clotfelter, 2001; Delaney, 2004; Harrison et al., 1995; Monks, 2003; Okunade, Wunnava & Walsh, 1994; Sun, Hoffman &
Grady, 2007) suggest the importance of the social interaction factor, and common examples in the higher education environment from this model relate to when donors give back as a result of their connection to a group when they were students, such as a fraternity, athletic team, area of study, campus club or residence hall. Clotfelter (2001) identified the importance of students being connected to the institution through extracurricular activities, and findings from Sun et al. (2007) also showed that “student experience significantly distinguishes alumni donors from non-donors” (p. 327). A study by Okunade et al. (1994) added to the positive relationship between the student involvement and alumni giving concept. The researchers found that “alumni members of non-Greek clubs and honors club alumni who continued their education at the same university contribute significantly” (p. 81).

Findings from Harrison et al. (1995) indicated the significance of student involvement and also added the importance of being a full-time student, “the percent of students who participated in fraternities and sororities positively affected giving while the percent of students who are part-time negatively affect giving” (p. 410). Monks (2003) provided more indications on the importance of the social connecting aspect in terms of charitable giving, stating “active participation in student government, intercollegiate athletics, performing arts/music, fraternities and sororities, religious groups, or residence life all correlated with greater levels of alumni giving” (p. 128). Delaney (2004) also found a direct correlation between student involvement in clubs and organizations outside the classroom and alumni engagement, and her study indicated educational achievement to be a positive variable in the characteristics of alumni donors.

**Economic Factors and Alumni Giving.** Another concept Mann (2007) identified relates to economic motivations for donative behavior. This model refers to how donor income and benefits interact, leading to philanthropic decisions. The author suggests this motive emerges
from the value or utility received from the gift experience and that donors give in order to receive either tangible or intangible benefits. Clotfelter (2003) found a relationship between economic capacity and alumni giving, suggesting that “the level of alumni donations was strongly associated with income” (p. 119), and a study by Weerts and Ronca (2009) provided further support for the connection between economic capacity and alumni giving, indicating that “both lifetime giving and giving in a single year relates to household income” (p. 114). Wunnava and Lauze (2001), Belfield and Beney (2000) and Monks (2003) all added to the literature, finding a direct correlation between financial status, income and charitable giving.

A study by Baade and Sundberg (1996) showed that “gifts per alum to public universities are much lower” (p. 80) than gifts by graduates of private institutions. The authors suggested that students at private schools generally are wealthier and that graduates of public schools may consider their tax payments to state institutions adequate support for public colleges and universities. In a similar study, Wunnava and Okunade (2013) supported the economic capacity concept, examining the giving behavior of business executives to their respective alma mater. A finding from the research revealed that “alumni with higher type CEO or President job titles contributed more in donations than those with lower job titles” (p. 771).

**Service-Philanthropic Factors and Alumni Giving.** Another giving concept according to Mann (2007), the service-philanthropic theory relates to giving behavior associated to when donors feel “they receive professional service and value” (p. 37) from an organization. A number of studies (Baade & Sundberg, 1996; Cunningham & Cochi-Ficano, 2002; Hartman & Schmidt, 1995; Leslie & Ramey, 1988; Newman & Petrosko; 2011; Okunade & Berl, 1997) support this feeling of professional service and quality, suggesting that donors give back based on their positive perception of the institution and when they are assured their gifts will add value and
have impact. Equally important, donors connected through this concept, cite the importance of the receiving organization being good stewards of their respective gift.

Leslie and Ramey (1988) found that “although academic quality may have some influence on alumni support … the main predictor of alumni support appears to be institutional prestige” (p. 125). Baade and Sundberg (1996) supported the claim, suggesting that “institutional quality is important and more selective private universities and colleges receive significantly more alumni giving per alum” (p.79-80). A study by Hartman and Schmidt (1995) showed that even the perception of quality had a positive impact on whether a graduate decided to give and indicated that the professional skills learned to attain a job had a strong positive correlation on alumni satisfaction. In a study of business school alumni, Okunade and Berl (1997) found a number of variables leading to the propensity of giving, which included a graduate’s “personal evaluation of how valuable their earned business school degrees are” (p. 251).

Cunningham and Cochi-Ficano (2002) added to the institutional quality concept, citing “An institution’s academic reputation, the measured scholastic aptitude … the faculty-staff ratio, its function and structure, and the vocational choices of graduates critically affect subsequent flows of charitable giving from former ‘customers’” (p. 560). Newman and Petrosko (2011) provided more support on the importance of perception in relationship to charitable giving, stating “the most significant attitudinal variable associated with alumni association membership was alumni association perception” (p. 757).

**Relationship-Marketing Factors and Alumni Giving.** Finally, the last concept described by Mann (2007) focuses on the importance of cultivating relationships through communication, networking and friend-raising. Through these relationships, which vary from transactional connections to close-knits bonds, research (Bingham, Quigley & Murray, 2003;
Levine, 2008; Pearson, 1999) shows how communication shapes these associations, leading to positive perceptions and philanthropic support. Pearson (1999) indicated the importance of an institution’s advancement efforts and how these practices cultivate potential donors, “giving is influenced … by the quality of alumni relations and communications … and the messages conveyed in solicitations—not to mention the resources involved in fundraising” (p. 8). In an example of a transactional-relationship study, Levine (2008) examined which types of communications pieces lead to alumni giving. The analysis found that the total number of contacts through communications did not associate with greater giving but that “a strong positive relationship between receiving certain communication pieces frequently related to higher alumni giving levels and participation rates” (p. 195). A study by Bingham, Quigley and Murray (2002) analyzed the correlation between alumni acknowledgement programs and their relationship with charitable giving by graduates. The research indicated that the more personalized and elaborate the acknowledgement the greater likelihood of future alumni donations. The study found that a “personalized approach, identifying the use and need for funds demonstrated the greatest impact … [and] the impact over the giving lifetime of an alumnus is substantial” (p. 12-13).

**Capacity to Give Factors and Alumni Giving.** Along with the work of Mann (2007) in identifying a set of theoretical perspectives for giving, research by Weerts and Ronca (2007) developed a set of motivational frameworks in studying the giving and volunteer behavior of graduates as well. In this theoretical approach, the researchers established the importance of economic capacity to give by alumni; and if a graduate met this criterion, charitable behavior followed based on three central principles. These included: the social exchange theory, the expectancy theory and the investment model.
In the overarching capacity to give concept, Weerts and Roca (2007) cited studies showing how financial characteristics, demographic variables and lifecycles play an important role in the economic capacity of a graduate to give back to an institution. Like Mann (2007), the authors refer to a number of studies (Baade & Sundberg, 1996; Belfield & Beney, 2000; Clotfelter, 2003; and Monks, 2003; Wunnava & Lauze, 2001) that show a direct correlation between financial status, income and charitable giving. Weerts and Ronca’s (2007) capacity to give notion differs from Mann’s (2007) economic theory in a couple of areas. First for Weerts and Ronca (2007), the capacity to give concept is the initial construct for charitable behavior to occur, while for Mann (2007) the economic theory illustrates one motivational instance leading to alumni giving. In addition, Weerts and Ronca (2007) place an emphasis on lifecycles, which is absent in Mann’s economy theory concept. A study by Olsen, Smith and Wunnava (2001) provided support for the lifecycle variable, revealing “we discovered that the growth rate of donations coincided with the age-income profile and became negative at the retirement age” (p. 60). Another example of the importance of the lifecycle effect, according to Weerts and Ronca (2007) relates to how alumni with student loan debt, as shown by Monks (2003), tend to give less to their alma mater. A study by Wiepking and Breeze (2012) supported the Weerts and Ronca (2007) economic capacity concept, establishing the importance of money perception and charitable giving for donors, stating “Regardless of actual financial resources, the amount people donate is negatively affected by feelings of retention and inadequacy” (p. 21).

After a donor meets the initial economic capacity threshold, Weerts and Ronca (2007) recognized the social exchange theory as one of the central concepts for charitable giving. In this theory, the authors suggested there are “costs and benefits” associated with giving motivation, specifically that donors are motivated to make a monetary gift or volunteer time because they
received a benefit from the University in the past or will receive a benefit. According to Weerts and Ronca (2007), a number of alumni giving studies (Clotfelter, 2003; Cunningham and Cochi-Ficano, 2001; Harrison et al., 1995; Monks, 2003) indicate the relationship between the benefit of alumni experiences and involvement correlating to charitable giving behavior.

Weerts and Ronca’s (2007) expectancy theory centers on a give-and-receive motivation, and instead of the graduate receiving an immediate benefit, the concept associates to a projected outcome in the future. The researchers contend that alumni support “is based on whether the graduate feels that he or she can make a difference to the organization through charitable gifts or volunteer service” (p. 23). A finding in a study by Taylor and Martin (1995) directly relates to the expectancy theory, suggesting alumni tend to give when there is a “perceived need by the institution” (p. 299).

Finally, Weerts and Ronca (2007) described the investment model as a pledge by alumni to give back in response to a feeling of satisfaction with the institution. These commitments usually develop stronger over time and appear linked to a strong attachment to the college or university. Weerts and Ronca (2007) explained how these investments, “can be linked to extrinsic—linked to external gains or losses—or intrinsic which is comprised of time, emotional involvement, or money” (p. 24). The authors cite the findings of Mael and Ashforth (1992) on the importance of emotional connections and how alumni create strong attachments to organizations, which enhance the likelihood of giving. Several additional studies (Clotfelter, 2003; Taylor & Martin, 1995; Wunnava & Lauze, 2001) provide support and how alumni who are engaged with the institution either through involvement or through a sense of satisfaction with their alma mater lead to charitable giving.
Overview of Alumni Giving in Higher Education. In review of research attempting to predict charitable giving behavior in higher education, a majority of the studies focus on two primary groups of potential donors in students and alumni. In the student-related studies, the research often centers on student involvement and student success, while for the alumni literature; the research generally focuses on alumni engagement, graduate satisfaction, economic factors and institutional reputation. Research on the alumni giving topic often differs in the type of institution studied, ranging from public to private schools and from large research universities to small selective colleges. Studies also vary from cross-sectional studies to single institution ones. Because alumni tend to be one of the largest pools of voluntary donors to higher education, understanding their motivation and charitable giving behavior becomes important in gauging whether athletics has an impact on voluntary support to higher education. By examining the impact athletics has on some of the commonly identified factors that motivate alumni giving, it would be a valuable exercise in understanding the impact of athletics on charitable giving in higher education.

As discussed in several studies (Baade and Sundberg, 1995; Belfield and Beney, 2000; Okunade et al., 1994; Weerts & Ronca, 2008) a number of variables impact charitable giving behaviors of alumni, and consistent with the research of Mann (2007) and Weerts and Ronca (2007) several patterns and theoretical perspectives explain these motivations. From a synthesis of the literature on the topic, six common themes emerge as important factors: emotional attachment, satisfaction, active engagement, economics, direct benefits and institutional prestige. Within these themes, the need for future research arises on whether intercollegiate athletics can stimulate, either directly or indirectly, these types of motivations.
Brittingham and Pezzullo (1990) in their formative work, the “Campus Green: Fundraising in Higher Education,” state that the “best predictors of alumni giving are an emotional attachment to the school, participation in alumni events and participation in and donation to other voluntary groups” (p. 40). A reasonable assumption from the nature of intercollegiate athletics is that these activities generally create an emotional attachment to the institution, such as being proud of your team, providing social opportunities through the attendance at games and active engagement by being involved or supporting an athletic team. Mann (2007) describes how potential donors to higher education tend to act like “a proud parent, an individual is very proud of the organization and what it stands for” (p. 39). Further, he elaborates how individuals wish to associate with winners and success and willing to provide assistance to the institution during times of success or when an institution is in need of support to overcome obstacles. A number of studies (Baade & Sundberg, 1996; Brittingham & Pezzullo, 1990; Litan et al., 2003; Stinson & Howard, 2008; Tucker, 2004; Turner et al., 2001) examine the relationship between athletic success and giving but fewer investigate the indirect impact athletics has on creating these prosocial behaviors, leading to charitable giving in higher education.

Charitable Giving to Intercollegiate Athletics

The history of charitable giving to college athletics is much shorter in duration than giving at the general institutional and alumni giving levels; however, the evolution of voluntary support at all levels closely resemble. Like general institutional and alumni giving to higher education, Hall and Mahoney (1997) trace the evolution of charitable giving to athletics as first appearing in the Ivy League schools. The first gifts to athletics programs were directed to football, and the head coaches and athletic directors served as the initial fundraisers. The practice
of athletic fundraising continued at modest levels in higher education until the 1970s when government support for athletics decreased (Hall & Mahoney, 1997). With the reduction of institutional support for college athletics, programs increased their efforts in fundraising to compensate for the loss. Similar to the evolution of charitable giving in higher education, the pursuit for revenue led to the development of more professional fundraising programs in college athletics, which have continued to advance over the last 40 years (Hall & Mahoney, 1997). For many schools at the NCAA Division I level, the increased emphasis on athletic fundraising correlates to increased revenue for their respective programs. A report by Fulks (2009) finds that charitable giving accounts for 31% of generated revenue at NCAA Division I-A football schools and represents 29% at NCAA Division I-AA football schools.

Since the early 1970s, a number of research studies have investigated the correlation between the success of intercollegiate athletic programs and their relationship with the total amount and number of philanthropic gifts to an institution. Despite the commonly held belief that athletic success leads to larger endowments, research studies (Baade & Sundberg, 1996; Brittingham & Pezzullo, 1990; Litan et al., 2003; Stinson & Howard, 2008; Tucker, 2004; Turner et al., 2001) over the past four decades show conflicting findings in terms of the significance of athletic success in leading to institutional giving. These studies offer differing variables in the determination of whether there is a relationship between athletic success and giving such as institution size and type, NCAA classification and type of donor to name a few. In studying the relationship between athletic success and institutional donations, one notable observation is that a majority of the previous research examines the success of either football or men’s basketball at almost exclusively NCAA Division I-A schools (Martinez et al., 2010).
Brittingham and Pezzullo (1990) emphatically question the link between athletics success leading to increased giving to higher education stating:

One of the best-documented inquiries in the history of fundraising is of the widely held conviction that winning teams produce higher yields in private giving or losing teams to reduce it. Few areas of inquiry into fundraising have been as long and as thoroughly examined, yet few areas of conventional thinking and practice in higher education seem so clearly at odds with empirical findings (p. 45-46).

Despite the claim by Brittingham and Pezzullo (1990), contradictory research on the subject exists, especially in some of the recent research examining the relationship between athletic success and athletic giving. In an analysis of the research on intercollegiate athletics and institutional fundraising, Martinez et al. (2010) separated the findings into three categories. Two categories cover a bulk of the studies, with the first set including studies with “little or no relationship between athletics and fundraising (p. 37),” and the second group including studies that had a positive effect on fundraising either at the athletic or institutional level. The final category included studies that found a negative correlation between athletic success and institutional giving in what the researchers deem as a “crowding out effect” (Martinez et al., 2010). The following section summarizes these studies on athletic giving over the past 40 years and identifies key findings and themes from the literature.

**Themes from Athletics Success and Giving Literature.** In reviewing the literature on the relationship between charitable giving in higher education and athletics success on the playing field, comparisons of empirical studies prove difficult to generalize. After 40 years of studying the relationship, the differing research designs and variables hinder researchers’ ability to assertively predict the impact of athletic success on donative behavior in higher education (Goff, 2000). In an analysis of the literature, the most prevalent variables on the topic include: institution type (i.e. public or private); university giving, alumni giving and athletic giving;
alumni donors versus general donors; NCAA classification; intercollegiate sports examined; and what constitutes athletic success (Martinez et al., 2010). From these variables, the most common themes relate to the correlations between the type of giving, the type of donor and what type of athletic success generally leads to charitable giving.

From the studies that did show a positive relationship between winning and giving, a common theme in these studies (Coughlin & Erekson, 1984; Daughtrey & Stotlar, 2000; Sigelman & Bookheimer, 1983; Stinson & Howard, 2007; Stinson & Howard, 2008; Wunnava & Okunade, 2013) reveals that when intercollegiate teams achieve success on the playing field, institutional giving or athletic giving increases. For the most part, the literature shows a small but significant impact in total giving and the number of donors when a college’s athletic teams perform well. Sigelman and Bookheimer (1983) indicated that “there is in fact a fairly strong linkage, which comes in the form of a correlation between success in football and contributions made directly to intercollegiate athletic programs” (p. 357). The authors continued in describing how the winning and giving linkage perpetuates stating that “Success brings in money, money makes it easier to succeed, and success brings in more money still; as the process feeds upon itself, the rich get richer and the poor get poorer” (p. 358).

Further to the point regarding the relationship between athletic success and institutional and athletic giving, a number of studies (Baade & Sundberg, 1996; Coughlin & Erekson, 1984; Daughtrey & Stotlar, 2000; Rhoads & Gerking, 2000; Wunnava & Okunade, 2013) qualify the type of success that best correlates with institutional and athletic giving. From these studies, major achievements such as college football bowl victories, NCAA national basketball tournament appearances and wins and conference and national championships tend to spark charitable giving. Rhoads and Gerking (2000) suggested that “long standing athletic traditions,
measured by the extent of participation in football bowl games and NCAA basketball
tournaments … appear to have a positive impact on voluntary support,” (p. 257). Similarly, 
Baade and Sundberg (1996) found that when the higher profile sports, such as football and 
basketball, realize success on a “big stage” such as postseason tournaments or bowl games, there 
is a significant correlation between athletic success and alumni gifts.

In contrast to the positive linkage between athletic success and giving at both the general 
institutional and athletics levels, the literature on the impact of athletic success on alumni giving 
appears inconclusive with conflicting research in this area. A number of studies (Gaski & Etzel, 
1984; Humphrey & Mondello, 2007; Litan et al., 2003; Sigelman & Carter, 1979; Turner et al., 
2001) focus solely on alumni donors and the impact of athletic success, and they suggest no 
correlation between the two variables. A study by Sigelman and Carter (1979) found, “Our 
statistical analysis has revealed there is simply no relationship between success or failure in 
football and basketball and increases and decreases in alumni giving” (p. 293). Further, the 
researchers elaborated on how the perception of a positive relationship exists based on 
ideological confrontations, “the idea that athletic success causes alumni giving symbolizes the 
twisted values and perverted priorities underlying big-time college athletics” (Sigelman & 
Carter, 1979, p. 293). Similarly, Litan, Orzag and Orzag (2003) indicated no significant 
relationship between the success of the athletic program and alumni gifts along with no 
significant connection between how much the institution spent on athletics and the amount of 
alumni contributions to a respective school. On the relationship between alumni giving and 
football success, Turner et al. (2001) added that “Contrary to much of the mythology about 
winning and giving, we find no relationship of any kind between won-lost records in football and 
giving rates” (p. 821).
In addition to the literature that shows no relationship between athletic success and alumni giving, several studies (Baade & Sundberg, 1996; Daughtrey & Stotlar, 2000; Grimes & Chressanthis, 1994; McCormick & Tinsley 1990; Rhoads & Gerking 2000; Stinson & Howard, 2007; Stinson & Howard, 2008; Tucker, 2004; Wunnava & Okunade, 2013) reveal a positive relationship between athletic success and alumni giving. Baade and Sundberg (1996) indicated that “Colleges and universities are rewarded by their alumni for sport programs that are extremely successful and that athletic success has an immediate impact on alumni generosity” (p. 802). Tucker (2004) compares the winning percentage of teams, the number of post-season appearances and the final national rankings for athletic teams with the U.S. News & World Report rankings for graduation rates and alumni giving rates for each respective institution. His findings show a positive connection between success on the football field and both graduation and alumni giving rates. Wunnava and Okunade (2013), added to the positive impact on alumni giving indicating that when a school wins a football national championship, “our results confirm that donations tend to rise significantly in years that their alma mater won the national basketball and/or football championship(s)” (p. 769).

Although limited, a couple of empirical studies (Springer, 1974; Stinson & Howard, 2004) reveal a negative correlation between intercollegiate athletics and alumni giving. Both of the studies support an assertion by Sperber (1990), of a “crowding out effect.” In his book, “College Sports Inc.: The Athletics Department vs. the University,” Sperber offers one of the most formative pieces on the negative relationship between athletics and financial giving to a college or university. The author provides a number of myths about intercollegiate sports, one of which directly relates to athletics and giving. Springer (1974) provides an example of this negative relationship between athletics and giving, finding that some schools “experienced
significantly positive results” when they drop the football program. A study by Stinson and Howard (2004) indicates additional support of the “crowding out effect,” suggesting that “both alumni and non-alumni show an increasing preference toward directing their gifts to the intercollegiate department-at the expense of the donations to academic programs” (p. 138). These findings counter another study by Stinson and Howard (2010b) that “academic programs may benefit from leveraging the emotional connection generated by athletic programs to cultivate gifts” (p. 325).

Another common theme from the research finds that when a positive correlation exists between athletic success and charitable giving, and the studies examine both institutional giving and alumni giving (Daughtrey & Stotlar 2000; Rhoads & Gerking 2000; Stinson & Howard, 2008); then the athletic success has a more significant impact on alumni donors compared to non-alumni donors of the institution. Rhoads and Gerking (2000) compared post-season success of football and basketball, athletic tradition and athletic probation on alumni and general institutional giving rates at the respective schools. For non-alumni, the study showed no change in the giving rates at the institutions in correlation to athletic success, however; the research established a favorable correlation between alumni giving and football bowl victories. A study by Daughtrey and Stotlar (2000) examined the giving tendencies at NCAA Division I-AA, Division II and Division III schools in relationship to the success of athletics. The sample observed the relationship between winning football teams, specifically national championship winners during the span of 1987-1997 and indicated a stronger tendency for alumni to give back to the annual fund at the university and also more targeted gifts to the athletic department.

The findings of Rhoads and Gerking (2000); Daughtrey and Stotlar (2000); Stinson and Howard, (2008); and Stinson and Howard (2010b); suggest that alumni donors tend to be swayed
more by athletic success. These findings differ from Springer (1974) and Sperber (2000), who assert that intercollegiate athletics has a negative impact on charitable behavior. The positive impact of athletic success on alumni giving also differs from the findings of Humphreys and Mondello (2007), who suggested that winning and giving can alter giving patterns and lead graduates to donate to athletics instead of academic interests. Humphreys and Mondello (2007) found “only restricted giving changes in response to athletic success” and for alumni at both public and private institutions, “athletic success does not appear to induce donors to increase their unrestricted contributions the following year” (p. 278). Since most of the restricted gifts are designated for athletics, the authors suggested that “academic units might not benefit from athletics-related increases in donations” (Humphreys & Mondello, 2007, p. 278). Stinson and Howard (2007) illustrated a similar tendency, stating that “athletic success does not differentially influence alumni and non-alumni donors but does influence giving to athletic programs differently than giving to academic programs” (p. 260).

Within the literature on the impact of winning and giving, another common finding throughout the studies shows that football success, especially bowl appearances and wins (Baade & Sundberg, 1996; Goff, 2000; Humphrey & Mondello, 2007; Rhoads & Gerking 2000; Stinson & Howard, 2007) appear as a more important variable in terms of defining athletic success and later leading to charitable giving. Baade and Sundberg (1996) found that “a football appearance is significantly and positively correlated with the average gift per alum” (p. 799). Stinson and Howard (2007) added that “football tradition and the winning percentage of the football team both have significant positive influence on giving” (p. 258). The importance of only football in gauging the impact of athletic success in leading to donations tends to be slightly misleading, since only Grimes and Chressanthis (1994) and Meer and Rosen (2009) are the only studies to
investigate the success of sports other than football and men’s basketball in assessing a link between athletic success and charitable giving.

Along with the differing views about the impact of winning and giving, a review of the literature also finds a few other common themes across the study of athletic success and charitable giving. In comparing the impact of institution type (i.e. public versus private) across the studies, the literature indicates mixed findings. Several of the studies (Budig, 1976; Daughtrey & Stotlar, 2000; Sigelman and Brookheimer, 1983; Sigelman, & Carter, 1979; Stinson & Howard, 2007; Stinson & Howard, 2008; Tucker, 2004) sample a combination of public and private institutions, and the research finds that institution type did not impact the relationship between athletic success and charitable giving, indicating that all schools may be impacted by athletic success. However, one study that did suggest a relationship in giving based on institution type was by Brooker and Klastorin (1981). In examining data of both public and private NCAA Division I institutions over a 10-year span, the research finds a significant correlation between football and basketball success at the private institutions and only mixed results within the public schools. The researchers conclude, “To the question of whether athletic performance influences alumni giving … the answer seems to be yes, but it depends on the nature of the institution—whether public or private” (p. 746).

Although not strictly based upon institution type, another common association in the research of winning and giving relates to the academic ranking of a respective institution. Research by Shulman and Bowen (2001) and Turner et al. (2001) found that the higher academic ranking of an institution correlated to the less likelihood of a relationship between athletic success and charitable giving. A finding from Stinson and Howard (2007) connected closely to the private school relationship, established by Shulman and Bowen (2001) and Turner et al.
(2001). These studies show that both public and private institutions positioned higher academically in the *U.S. News and World Report* rankings were less likely to be affected by a shifting of academic gifts to intercollegiate gifts when the football program demonstrated success. Stinson and Howard (2007) explained that “*US News* Tier 1 schools are not as susceptible to athletic performance as other schools. In addition, the higher ranked institutions allocate lower percentages of their total gifts to athletics than lower ranked and unranked institutions” (p. 260).

Finally, an area that also lacks consistency in investigating the relationship between athletic success and philanthropic giving in higher education relates to the NCAA classification variable. A vast majority of the studies (Coughlin & Erekon, 1984; Gaski & Etzel, 1984; Grimes & Chressanthis, 1994; Humphrey & Mondello, 2007; Litan et al., 2003; Rhoads & Gerking, 2000; Sigelman & Bookheimer, 1983; Sigelman & Carter, 1979; Stinson & Howard, 2007; Tucker, 2004; Wunnava & Okunade, 2013) focus solely on athletic success and charitable giving habits of donors at the NCAA Division I-A level, and as indicated, the results range from a positive association and no relationship to a negative one. From the literature on the topic, only three studies (Baade & Sundberg, 1996; Budig, 1976; Turner et al., 2001) examine the relationship in a combination of all three NCAA Division I levels (I-A, I-AA, I-AAA). The results are also inconclusive from these studies, as Budig (1976) and Turner et al. (2001) suggest no significance, while Baade and Sundberg (1996) reveal a positive relationship.

From all the research on the topic of winning and giving in higher education, only two studies (Daughtrey & Stotlar, 2000; Stinson & Howard, 2008) examine the relationship of charitable giving and athletic success at non-NCAA Division I schools. In general, the Daughtrey and Stotlar (2000) study finds that annual fund giving to the institution increases at
both the NCAA Division I-AA and Division III levels during national championship seasons, while findings reveal a negative relationship at the Division II institutions. In terms of the total amount and the number of donations from alumni and the general public earmarked to the respective athletic departments, the study yields a significant increase at NCAA Division II and Division III schools. In examining the donative behavior of only alumni in relationship to athletic success, the research reveals mixed results with Division I-AA institutions exhibiting a positive correlation, while the Division II and Division III schools present a negative one. The authors suggest that the Division II and Division III findings aligned with the previous work of Sperber (1990) in that “some alumni did not donate to their former universities because they thought their schools had become “jock factories” or pro-sport minor leagues, and they felt this devalued their degrees” (Daughtrey & Stotlar, 2000, p. 191).

A study by Stinson and Howard (2008) explores the relationship between academic, athletic and total university giving at the NCAA Division I-AA and Division I-AAA levels and finds a positive association between successful football and basketball teams, correlating to larger individual gifts and in the number of donations. The authors suggest:

“while some of the practical effects are marginal and trail the influence of other institutional factors (i.e., academic ranking, private status, religious affiliation, etc.), it is clear that successful athletic programs lead current donors to make larger gifts and more importantly, attract additional donors to the institution” (Stinson & Howard, 2008, p. 17).

Another important finding from Stinson and Howard (2008) countered the “crowding out” theory of Martinez et al. (2010), suggesting “these findings appear to support the institutional investment in developing successful, high-profile sports at lower-levels of NCAA competition” (p. 17). An assertion from Martinez et al. (2010) also cited that NCAA Division I-A schools tend to receive more media attention, stimulating a greater significance of athletic success at the
NCAA Division I levels; however, the lack of research at the lower Division I levels and at the NCAA Division II and NCAA Division III levels prevents an accurate generalization on the relationship between NCAA classification and charitable giving in higher education.

**Motivations for Giving to Intercollegiate Athletics**

In addition to the research focusing on the relationship between winning and giving, another body of literature in the 1970s began to explore specific motivations for athletic giving and to develop instruments or models to help examine the reasons for donors making targeted philanthropic decisions to intercollegiate athletics. By learning the motivations for donors giving to athletics, it provides a clearer understanding if there is a relationship between athletic success and charitable giving to higher education.

Staurowsky, Parkhouse and Sachs (1996) mentions much of the early research in the late 1970s and early 1980s on the topic relates to broad demographic variables for donors giving to athletics instead of the motivational factors which lead to athletic gifts. Verner, Hecht and Fansler (1998) concur stating many of the early studies on intercollegiate athletic giving by Bronzan (1977), Eilefson (1977), Ford (1978) and Fields (1980) focus on athletic giving characteristics and attitudes, providing descriptive studies rather than analytic works that lead to predictors of donor motivation. The research focuses more on practical issues with the goal of establishing a link to why donors gave to athletic causes instead of developing “an all-inclusive account of factors affecting athletic donor behavior and motivation” (Staurowsky et al., 1996, p. 263).

In the mid-to-late 1980s, several studies began to identify some motives for athletic donor behavior. Research by Hammersmith (1985) and Isherwood (1986) found the importance of the benefit factor, responding to the personal benefits attained when a donor gives back to an athletic
program, such as priority seating, parking privileges, special recognition and exclusive invitations to social events. In addition, Hammersmith (1985) and Comstock (1988) established the importance of the philanthropy factor, finding links to athletic giving through the importance of student-athlete development and also the importance of the prestige factor as donors welcomed the opportunity to give back to promote the image of the institution.

Since prior research lacked the classification of broad categories to enable scholars an ability to generalize the motivational behavior of athletic donors, sport researchers began the development of tools to measure motives of athletic giving. Understanding the need for such an instrument, Billing, Holt and Smith (1985) developed the first scale to measure donor motives in what is known as the Athletic Contributions Questionnaire (ACQUIRE). Based on the Billing et al. (1985) work, Staurowsky et al. (1996) and Verner et al. (1998) created similar instruments to gauge motivational factors of athletic donors. All three studies (Billing et al., 1985; Staurowsky et al., 1996; Verner et al., 1998) generally agreed upon four primary factors leading to athletic giving. The first common reason relates to altruistic motives, as donors receive satisfaction in either helping an athletic program or providing opportunity for student-athletes through philanthropic gifts. Another common donor motivation associates with social interaction, feeling and bonding realized by being part of an organization, while a third reason relates to the success factor and having the opportunity to connect with successful individuals and teams. A final factor relates to the benefits, direct or indirect, realized by donors to athletics. These benefits range from receiving tickets and parking privileges to receiving exclusive access to university officials.

Based on earlier studies, Mahony, Gladden and Funk (2003) created another instrument to gauge the motivations of athletic donors, following a similar path as both Billing et al. (1985)
and Stauroswky et al. (1996). The authors acknowledged the previous research on the topic of Billing et al. (1985) and Stauroswky et al. (1996) and how these early works provided “insight into our understanding of [athletic] donor behavior,” but state how these previous studies “have not provided a commonly accepted scale” (Mahony et al., 2003, p. 10). From the previous research, Mahony et al. (2003) first builds upon the philanthropy, social, benefits and success factors identified in Billing et al. (1985), and like research by Stauroswky et al. (1996), the researchers chose to expand some of the measures into separate categories. Under each factor, with the exception of the philanthropy measure, Mahony et al. (2003) created sub-factors, one relating to the importance of associating with friends at sporting events and the other linked to relaxation. For the benefit factor, the researchers break down the measure into three sub-categories, “priority seating for football, priority seating for basketball and business enhancement” (Mahony et al., 2003, p. 11). The study divided the success measure into four separate factors which included: tradition, current success, future success and community pride. In addition to these factors, Mahony et al. (2003) added to the instrument a nostalgia factor (i.e. emotional ties to the school) and a psychological factor (i.e. a donor’s commitment to the University’s primary athletic team).

As a result, the Mahony et al. (2003) study produced a new instrument to predict donor motivations, and found that some motives “were clearly more important than others” (p. 23). In terms of benefits received, the priority seating factor suggested to be a significant predictor of athletic giving along with the success factors. Another important finding revealed “support for the theory that donors at different institutions are unique and that understanding donors at a particular institution is important before developing any fundraising plans” (Mahony et al., 2003, p. 23). A qualitative study by Gladden, Mahony and Apostolopoulou (2005) on intercollegiate
athletic giving motivations provided additional indications of the importance of institutional-type, finding there is not a “one-size-fits-all” factor for intercollegiate athletic giving and there are varying motives for giving based on institution type and size.

In addition to these studies (Billing et al., 1985; Gladden et al., 2005; Mahony et al., 2003; Staurowsky et al., 1996; Verner et al., 1998), research by Staurowsky (1996) and Shapiro and Ridinger (2011) added to literature on motivational factors, finding differences based on gender in giving back to athletics. The Shapiro and Ridinger (2011) study revealed three findings: “affective involvement” was stronger for female donors as opposed to male donors; female athletic donors on average contributed smaller amounts on an annual basis, confirming the previous work of Staurowsky (1996); and finally that male donors gave continually over a longer span of years compared to female donors. Of importance, the authors suggested that the affective involvement finding demonstrated that “female [athletic] donors may feel more involved through a message that is value-expressive as opposed to utilitarian in nature” (Shapiro & Ridinger, 2011, p. 30). In addition, Shapiro and Ridinger (2011) added a new component to the literature in establishing longevity differences in athletic giving between males and females.

The importance of understanding the motivations and why donors give to athletics relates to the correlation between athletic success and institutional giving as a whole. Similar to literature on the positive relationship between winning and giving (Coughlin & Ereksen, 1984; Daughtrey & Stotlar, 2000; Sigelman & Bookheimer, 1983; Stinson & Howard, 2007; Stinson & Howard, 2008; Wunnava & Okunade, 2013), several of the motivational studies (Billing et al., 1985; Gladden et al., 2005; Hall & Mahony, 1997; Mahony et al., 2003; Staurowsky et al., 1996; Verner et al., 1998) also stress the importance of athletic success as a motivational factor in giving. Another common finding across the literature relates to the importance of institutional-
type. Like some of the literature (Brooker & Klastorin, 1981; Shulman & Bowen 2001; Stinson & Howard 2007; Turner et al., 2001) on winning and giving, the motivational studies also cite the importance of institutional-type in the relationship between charitable giving and athletics. Both Mahony et al. (2003) and Gladden et al. (2005) noted this importance for intercollegiate athletic giving and suggested there are varying motives for giving based on institution type and size. A final area of similarity between the intercollegiate athletic success and giving literature and the research on motivational factors relates to the emotional tie to the institution. Mahony et al. (2003) and Tsiotsou (2007) developed the importance of the emotional connection to athletics, which directly relates to the findings of Stinson and Howard (2010b) and Holmes (2009) who indicated the importance of prestige and image, suggesting that “Alumni appear to increase their giving as they experience a ‘warm glow’ from athletic successes but also to preserve the academic reputation of the institution” (p. 27).

Alumni and Athletic Giving in Higher Education

After a synthesis of the literature pertaining to athletics and charitable giving at postsecondary institutions in the United States and an identification of common themes across studies, the results show contradictory findings on the topic. In reviewing the literature, several noticeable areas emerge lacking inquiry and in need of further analysis. The first relates to the lack of studies that examine non-NCAA Division I-A schools, especially institutions that compete at the NCAA Division II and Division III levels. In an analysis of studies relating to intercollegiate athletics, Martinez et al. (2010) found only one study that examined the giving habits of donors to NCAA Division II institutions. The study by Daughtrey and Stotlar (2000) indicated a negative impact between overall giving and alumni giving during the time a NCAA
Division II school experienced athletic success, while giving specifically targeted to the athletic
department increased during this period.

The lack of studies that compared the success of other athletic teams besides football and
men’s basketball was also noticeable, as only Grimes and Chressanthis (1994) and Meer and
Rosen (2009) investigated the success of other sports in relationship to voluntary support. The
exclusion of other intercollegiate sports in the research demonstrates a lack of clarity on the topic
since football and men’s basketball are not always the highest profile athletic program on
campus, especially at the NCAA Division II and III levels. A finding by Baade and Sundberg
(1994) revealed the importance of athletic success with the institution’s highest profile sport,
leading to charitable giving. However, a vast majority of the research is limited to only football
and men’s basketball success, which may not always be the most recognizable athletic program
(i.e. women’s basketball at the University of Connecticut).

Another area in need for further inquiry relates to the relationship between institutional-
type and athletic success in leading to charitable giving. The finding from Stinson and Howard
(2007), revealing the relationship between academic ranking, per the *U.S. News and World
Report* rankings, warrants further inquiry. Instead of delineating institution type as public or
private as in a majority of the research, the finding suggests defining institution type in more
academic terms, such as student selectivity or academic ranking. Mahony et al. (2003) also
indicated the importance of institution type in the study of athletic donor motivation. The
institution type variable also relates to the lack of studies at the NCAA Division II and III levels,
as schools at these levels often have different institutional missions. Schools with intercollegiate
athletics at the NCAA Division II level offer much less scholarship money to student-athletes
than NCAA Division I schools (I-A, I-AA, I-AAA), while schools at the NCAA Division III level prohibit any type of athletic aid (NCAA, 2014a).

As predicted by Brittingham and Pezzullo (1990), “The search for evidence will no doubt continue as long as intuition suggests that the link [between athletic success and institutional giving] must exist” (p. 47). The inquiry on the relationship has continued over the last 20 years, and one variable recognized by Brittingham and Pezzullo (1990) and identified later by Gaski and Etzel (1994) that requires additional research relates to the importance of an emotional tie between intercollegiate athletics and donors. The majority of the studies on the subject examine the direct relationship between winning and giving and not the indirect relationship that athletics can offer, which in turn, may translate into voluntary financial support. These indirect relationships relate to the prosocial behaviors that may develop through the connection to athletics by students and graduates of an institution.

Within the studies examining the relationship between charitable giving and athletics success, a number of researchers caution not to dismiss the importance of the indirect benefits of athletics leading to giving. A study from Sack and Watkins (1985) suggested, “College sport is often at the center of campus social life. Around it has grown homecoming, football weekends, and a wide variety of rituals that keep alumni in touch with their schools (p. 304). Gaski and Etzel (1984) associated the importance of a school’s image through athletics and how it translates to greater voluntary support from friends and alumni. Grimes and Chressanthis (1994) defined the indirect benefits of intercollegiate athletics as a “spillover effect” and how it indirectly leads to charitable giving.

A study by Roy, Harmon and Graeff (2004) examining the impact of a school’s transition to NCAA Division I-A football stated, “Division I-A is seen as prestigious and has
many benefits to the university, including creating a positive image, stimulating alumni involvement, attracting students and enhancing school spirit” (p. 194). Tucker (2004) added how intercollegiate athletics keeps alumni engaged with the institution and also how increased media coverage from athletics can be a positive factor in establishing new relationships with the university. In addition, research by Holmes (2009) suggests the importance of prestige and image and how athletic successes help strengthen a positive feeling about the institution.

An example by Stinson and Howard (2010a) found indirect benefits of athletic success in exploring split gifts between athletics and academics. The researchers describe how donors who initially gave to athletic programs most often increased their voluntary support to other parts of the institution, “The empirical evidence clearly indicated that over time, a number of donors expanded their giving from strictly athletics to broader institutional support” (Stinson & Howard, 2010a, p. 764). In addition, the study established how intercollegiate athletics generates new donor pools for general institutional giving, and it also indicated that many of these new donors make significant academic gifts that would not be received without first being cultivated through athletics. In a similar study, the researchers stated how “Socialization to the institution, through exposure to high-profile athletic programs, clearly is an important antecedent to the development of some major donors” (Stinson & Howard, 2010b, p. 320).

With state and federal governments overextended more than ever, the volatility of the economy in recent years and students accumulating more debt to offset rising tuition and fees, the importance of philanthropic support proves paramount in providing an additional revenue stream to higher education. As Wesibrod and Asch (2010) described, the combination of smaller endowments, reductions in state funding, less tuition revenue, tightened credit and reductions in financial aid, has created the “Perfect Fiscal Storm” in the American higher education (p. 29).
As an example of the impact intercollegiate athletics has on charitable giving at the highest level, consider the recent developments at Texas A&M University. After recently joining the Southeastern Conference, arguably regarded as NCAA’s top athletic conference, donative behavior at the institution skyrocketed. In fiscal year 2013, the school raised more than $740 million, more than $300 million better than any previous year. John Sharp, chancellor of the Texas A&M University system, stated that one of the important factors in the fundraising success rested with football’s move to the SEC, “Football is one heck of a megaphone for us to tell our story” (Troop, 2013).

The record-setting fundraising total for Texas A&M came on the heels of the school joining SEC in 2012, and according to Ann E. Kaplan, director of the VSE survey, represented the most money ever raised by a public university. In addition to the large sum of charitable gifts directly targeted for intercollegiate athletics and for the renovation of the school’s stadium, the indirect impact on giving to other parts of campus was recognized by university officials. Ed Davis, the president of the Texas A&M Foundation said, “The ‘man-bites-dog’ part of that story is that 1,500 of the donors who have made gifts to Kyle Field have made parallel gifts to academics. Some of those have been in the seven- and eight-figure range” (Troop, 2013). Texas A&M’s experience confirms findings from Stinson and Howard (2010b) as the authors state, “It is evident that academic programs are missing a huge opportunity … academic programs in particular, and the institutions in general, may be leaving substantial gifts on the table by not cross-cultivating and soliciting these donors” (p. 326).

This chapter reviews research on prosocial behavior and social identity theory, the history of philanthropy in higher education, why alumni make charitable contributions to their respective alma mater, the impact of athletic success on giving to intercollegiate athletics and the
motivations for philanthropic support to college athletics. After a synthesis of research on charitable giving in higher education and the relationships between alumni giving and intercollegiate athletics, a noticeable gap in the literature exists on the impact college athletics has in association to prosocial behavior of students and graduates. In addition, another gap in the literature exists in the lack of study on the importance of institutional-type in predicting donative behavior. Chapter 3 of this study provides the methods for examining the impact of intercollegiate athletics in relationship to prosocial behavior of alumni at NCAA Division II institutions.
CHAPTER III

METHODS

This chapter provides the research methods and the procedures used in this quantitative examination to help determine the impact of intercollegiate athletics in relationship to prosocial behavior of alumni of postsecondary schools. The methods for this study consist of the following sections: (1) Introduction to Research Perspective; (2) Description of Research Design; (3) Variables and Research Questions; (4) Population and Sample (5); Data Collection; and (6) Data Analysis.

Introduction to Research Perspective. This research studies the relationship of intercollegiate athletics in creating prosocial behaviors among alumni at a college or university. Since the theoretical framework of the study aligns with social identity theory, specifically through a prosocial behavioral lens, and the study investigates the relationship between measurable variables and theory, an appropriate research method lies in quantitative inquiry. Creswell (2014) explains that “quantitative research is an approach for testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures” (p. 4). Within the quantitative approach, a survey method design is employed as the intent of the study is to obtain “a numeric description of trends, attitudes or opinions of a population” (Creswell, 2014, p. 13). He adds how a quantitative inquiry provides an opportunity for closed-end, instrument-based questioning in a format to obtain statistical data that can be interpreted (Creswell, 2014). The measurable outcome variable (i.e. trend, attitude or opinion as described
by Creswell, 2014) for this study represents prosocial behavior, precisely the act of financially
giving or volunteering, and the population represents alumni of higher education institutions.
Based on prosocial behavior defined as actions performed to benefit organizations (Diamond &
Kashyap, 1997; Eisenberg & Mussen, 1989; Friedman, 2003; Hogg, 1987; Katz, 1964; Mael &
Ashforth, 1992; Midlarsky, 1971; Organ, 1990; Rushton, 1982; Schervish, 1993; Schwartz &
Ben-David, 1976), both financial giving and volunteering fit as measureable outcomes.

In the study, the prosocial behaviors of financial giving and volunteering demonstrate a
connection between the graduate and the institution, including not only the act of monetary
donations, but also the act of being engaged with the school. Research studies on charitable
giving in higher education show alumni who are more engaged with their alma mater are more
likely to make financial contributions (Clotfelter, 2003; Diehl, 2007; Hanson, 2000; Harrison et
al., 1995; Hoyt, 2004; Hunter et al., 1999; Lawley, 2008; Taylor & Martin, 1995; Wunnava &
Lauze, 2001). Furthermore, several intercollegiate athletic studies (Clotfelter, 2011; Grimes &
Chressanthis, 1994; Sack & Watkins 1985; Stinson & Howard, 2010a; Stinson & Howard, 2010b
Tucker, 2004) show how college sports provide an avenue for keeping donors connected to the
institution.

Description of Research Design

A proper method for studying a general population utilizes survey research, which allows
for the generalization of a small applicable group in order to make inferences about a larger
population (Fowler, 2009). Survey research provides a tool to measure quantitative inquiries of
“some characteristic, attitude, or behavior” of a population (Creswell, 2014, p. 157), and
Dillman, Smyth and Christian (2009) add that, “the remarkable power of the survey sample is its
ability to estimate closely the distribution of a characteristic in a population by obtaining
information from relatively few elements of that population” (p. 54). In determining the size of a study’s sample size, the research follows recommendations of Dillman et al. (2009) in understanding precision is determined not by the proportion of the population sampled rather by the size of the sample (See Appendix A). The researchers add that “within small populations, greater proportions need to be surveyed to achieve estimates within a given margin of error” (p. 59). A number of disciplines use survey research because of the advantages and flexibility that the survey techniques offer. Survey instruments are generally inexpensive to administer and capable of providing a wide range of analysis on a research topic. In addition, surveys can be managed through one location and be disseminated through several different types of communicative means such as regular mail, electronic mail, the internet and telephone calls (Fowler, 2009). Roy and Berger (2005) add that “there is unequivocal evidence, as shown in this study and in previous studies that the reliability and validity of data collected through e-mail surveys are as strong as those collected through any other modes” (p. 164).

For this research, data is collected utilizing a cross-sectional, web-based online survey. Fowler (2009) contends that “if one is collecting data from a population that is highly literate and that, on average, is likely to be highly interested in the research, procedures such a mail or e-mail become more attractive” (p. 73). The instrument acquires data from a predetermined alumni group of selected NCAA Division II public and private institutions. When employing survey research, the ability to administer standardized questions to a selected group allows for the attainment of reliable data, and the findings to be statistically significant when analyzing multiple variables (Fowler, 2009).

In developing survey research, Fowler (2009) cites three important components integral in the process. The purpose must be to obtain statistical data or numeric descriptions about a
predetermined population, the study must employ questions as the means to collect data, and finally it must produce the ability to generalize a sample of the data to an entire population. This study adheres to these elements, as the study produces statistics about alumni, collecting information from questions aimed to identify the impact of intercollegiate athletics in association to prosocial behavior. The descriptive and inferential data obtained is generalizable to a sector of NCAA Division II institutions and enable an interpretation of characteristics or behaviors leading to prosocial acts.

**Variables and Research Questions**

As noted, the outcome variable for this study represents prosocial behavior among alumni, and the dependent variable is assessed using two sub-dimensions of prosocial characteristics, which include the act of volunteering to an organization and the act of making financial donations. To gauge the propensity of these two prosocial traits among alumni, the study employs three independent variables which include: organizational identification, affective commitment and satisfaction (See Table 1). In an effort to ensure content validity, as mentioned by Creswell (2014), the survey questions for the study were constructed considering the following common acts of alumni prosocial behavior: financial contributions to alma mater, attending university events and functions, such as sporting competitions, volunteering time and energy to institution, serving in leadership and advisory roles for the school or acting as an informal recruiter for the school by recommending the institution to others.

For the organizational identification variable, Mael’s (1988) model was selected based on fit, as the author describes organizational identification as, “the perception of oneness with or belongingness to an organization where the individual defines him or herself in terms of the organization he or she is a member” (p. 104). In studying the impact of intercollegiate athletics
on prosocial behavior among alumni, organizational identification is appropriate because a graduates’ connection in this instance relates to a commitment to the organization through college athletics. Mael and Ashforth (1992) and Mann (2007) along with several other studies (Diehl, 2007; Hanson, 2000; Harrison et al., 1995; Hunter et al., 1999; Hoyt, 2004; Lawley, 2008; Wunnava & Lauze; 2001) support the importance of organizational identification in alumni engagement.

Meyer and Allen’s 1984 model of commitment, which consists of three different types: affective, normative and continuance, was chosen as a model for the second independent variable. The authors explain those with a “strong affective commitment remain [engaged] because they want to, those with strong continuance commitment because they need to, and those with strong normative commitment because they feel they ought to do so” (Meyer, Allen & Gellatly, 1990, p. 3). Since a graduates’ attachment to his or her alma mater most often involves an emotive connection, the affective type fits best for the current study. Porter, Mowday and Steers (1982) describe how affective commitment relates to a passionate attachment and how the supporter accepts the organization’s culture and values based more from an emotional perspective. Mahony et al. (2003); Stinson and Howard (2010b); and Tsiotsou, (2007) all stress the importance of the emotional attachment in the intercollegiate athletic literature, while Brittingham and Pezzullo (1990); Clotfelter (2001); Mael and Ashforth (1992); Mann (2007) and Weerts and Ronca (2007) emphasize the emotional link in alumni studies.

The third and final independent variable in the research regarding the impact of intercollegiate athletics on prosocial behaviors relates to satisfaction, and a measure was adapted from the Brayfield and Rothe (1951) model, examining organizational satisfaction. A number of
alumni studies (Baade & Sundberg, 1996; Clotfelter, 2001; Harrison et al., 1995; Monks, 2003) indicate an important relationship between charitable giving and satisfaction.

Along with the selected independent and dependent variables for investigating the impact of intercollegiate athletics on prosocial behavior among alumni of NCAA Division II institutions, the study also captures demographic information on the alumni participants and delineates data by institutional-type. The survey asks for the following information: sex, major, year of graduation, age range at graduation, co-curricular involvement, whether giving financially to institution, intercollegiate athletic participation, whether a part-time or full-time student, financial aid received, lived on or near campus and whether he or she worked while going to school. Public and private institutions are separated in the data collection along with whether a school offers football within its intercollegiate sport program. Based on previous studies in the alumni and intercollegiate athletic literature, these demographic and institutional-type variables were found to impact giving.

In their model for predicting alumni giving, Weerts and Roca (2007) identified the importance of demographics, financial stability and lifecycles in the capacity of alumni to give back to their alma mater. The authors like other studies (Baade & Sundberg, 1996; Belfield & Beney, 2000; Clotfelter, 2003; Mann, 2007; Monks, 2003; Olsen, Smith & Wunnava, 2001; Wunnava & Lauze, 2001) contend a correlation exists between financial status in terms of age and income with the capacity to make charitable contributions. From the studies investigating motivations for athletic giving, Staurowsky (1996) and Shapiro and Ridinger (2011) found differences in giving based on gender, stating that female donors usually contributed smaller amounts and less frequently. Findings from Harrison, et al. (1995) provided the significance of being a full-time student, suggesting that “the percent of students who are part-time negatively
affect giving” (p. 410), while Wunnava and Okunade (2013) offered indications on the importance of major, showing how business executives tend to give back more to their respective college or university. The importance of living on campus and being involved is according to Brittingham and Pezzullo (1990) one of the “best predictors of alumni giving” (p. 40).

From an institutional perspective of public versus private, Baade and Sundberg (1996) indicated that “gifts per alum to public universities are much lower” (p. 80) than gifts by graduates of private institutions, while Shulman and Bowen (2001) and Brooker and Klastorin (1981) added that alumni of private schools tend to reward their institutions with gifts based on successful athletic teams compared to their public school counterparts. Despite these findings, Gladden, et al. (2005) and Mahony et al. (2003) acknowledged there is not a “one-size-fits-all” factor and varying motives in the relationship between institutional-type and athletic giving. In separating the football and non-football schools, several studies (Baade & Sundberg, 1996; Goff, 2000; Humphrey & Mondello, 2007; Rhoads & Gerking 2000; Stinson & Howard, 2007) showed how football success appears to be an important factor in alumni giving.

For the study investigating the impact of intercollegiate athletics in relationship to prosocial behavior among graduates of NCAA Division II institutions, the research seeks to answer the following questions:

1. What is the relationship between organizational identification to an institution through intercollegiate athletics and prosocial behavior among graduates of post-secondary NCAA Division II institutions?

2. Is there a relationship between affective commitment through intercollegiate athletics and prosocial behavior by alumni at post-secondary NCAA Division II institutions?
3. Does a relationship exist between satisfaction with intercollegiate athletics and prosocial behavior by graduates at post-secondary NCAA Division II institutions?

4. What is the impact of intercollegiate athletics and the relationship of alumni prosocial behaviors such as financial giving or volunteering at a NCAA Division II institution?

5. If a relationship is determined between intercollegiate athletics and prosocial behavior among alumni of NCAA Division II institutions, what impact does institutional-type and demographic variables have on the relationship?

Table 1

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Research Question</th>
<th>Survey Item</th>
<th>Statistical Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variable 1: Organizational Identification (OID) with intercollegiate athletics</td>
<td>Descriptive Question 1: What is impact of OID on alumni prosocial behavior.</td>
<td>Section II Questions: 2, 6, 10, 14, 18</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td>Independent Variable 2: Affective Commitment (AC) to intercollegiate athletics</td>
<td>Descriptive Question 2: What is impact of AC on alumni prosocial behavior.</td>
<td>Section II Questions: 3, 7, 11, 15, 19</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td>Independent Variable 3: Organizational Satisfaction (OS) to intercollegiate athletics</td>
<td>Descriptive Question 3: What is impact of OS on alumni prosocial behavior.</td>
<td>Section II Questions: 4, 8, 12, 16, 20</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td>Dependent Variable 1 Prosocial Behavior (PSB) financial contributions or volunteering</td>
<td>Descriptive Question 4: Does an alumni connection through intercollegiate lead to financial contributions or volunteering at alma mater.</td>
<td>Section II Questions: 1, 5, 9, 13, 17</td>
<td>Multiple Regression</td>
</tr>
</tbody>
</table>
Mediating Variables
Institutional-type and Demographic factors

Exploratory Question 5
If relationship exists what is impact of institutional-type and demographics.

Section I:
Questions 1-16

Stepwise Regression and Independent Sample T-test

Note. Table reflects the research variables, questions and specific survey items for the study. (OID) Organizational Identification; (AC) Affective Commitment; Organizational Satisfaction (OS); and (PSB) Prosocial Behavior.

**Population and Sample**

The population and sample for this study focus on institutions that offer intercollegiate sports at the NCAA Division II level since this area has lacked scholarly interest. Martinez, et al. (2010) finds that “the vast majority of studies examining athletic success have been conducted at the NCAA I-A level” (p. 45). Overall, there are over 300 institutions competing at the NCAA Division II level, and the respective institutions are divided into eight regions throughout the country. This study concentrates on schools that are members of the NCAA Division II South and Southeast Regions. The South Region consists of three conferences, Gulf South Conference, Southern Intercollegiate Athletic Conference and Sunshine State Conference, while the Southeast Region is comprised of the Conference Carolinas, the Peach Belt Conference and the South Atlantic Conference (NCAA, 2014c). The two NCAA regions consist of almost 70 member institutions and are all located in the Southern United States. More than half of the intuitions are private schools and less than half offer football among its intercollegiate sport offerings. The two regions combined have an undergraduate enrollment of almost 230,000 students and 20,000 student-athletes at their respective schools (See Appendix B).

A further delineating factor of the study defines the population and sample based upon institution type (public versus private) and whether a school offers football among its sport programs. As discussed by Fowler (2009), an important consideration in reducing error within a
study relates to choosing the proper “sample frame” (p. 14). This sample frame was based on previous findings and a report by the NCAA, detailing how there are:

inherent differences in fiscal demands and resources of public institutions and those of private institutions … athletics programs offering football operate in a different environment from those which do not, and the impact of the differences may be even greater when comparing public and private institutions (Fulks, 2014).

A number of studies (Baade & Sundberg, 1996; Coughlin & Erekson, 1984; Daughtrey & Stotlar, 2000; Rhoads & Gerking, 2000; Wunnava & Okunade, 2013) investigating the relationship of intercollegiate athletics at the NCAA Division I level indicated giving differences between graduates from schools that offer football and those that did not, and Martinez et al. (2010) found that football success is the top predictor of giving among all intercollegiate sports. In addition, Brooker and Klastorin (1981) and Baade & Sundberg (1996) recognized a difference between charitable giving at public and private institutions, along with Mahoney et al. (2003) demonstrating the importance of “understanding donors at a particular institution” (p. 23).

Statistics show that students at private colleges and universities (See Appendix C) are more involved and engaged in co-curricular activities (NSSE, 2009), and the literature (Mael & Ashforth, 1992; Diehl, 2007; Hanson, 2000; Harrison et al., 1995; Hoyt, 2004; Hunter et al., 1999; ; Lawley, 2008; Mann, 2007; Wunnava & Lauze; 2001) emphasizes the importance of alumni engagement in charitable giving behavior.

Due to the sensitivity of alumni contact information and institutions not wishing to share this data with the public, the primary researcher was not allowed custody of the email contact information for the alumni population. The primary researcher had to rely on the alumni directors at the participating institutions for dissemination of the survey instrument. Because of the complexity of working with different contacts at the respective institutions and with different
alumni lists, the study was forced to perform a sampling technique that Bhattacharyya (2006) describes as judgement sampling, where “the judgment or opinion of some experts forms the basis of the sampling method (p. 111).” The alumni directors qualify as the experts in this instance and assisted the primary researcher in selecting the sample.

Data Collection

The survey instrument used for this study employs a social identification model of prosocial behaviors developed by Tidwell (2005), investigating prosocial behavior within nonprofit organizations. The instrument represents three components from three different assessments with each tied to the independent variables within the study. The first measure is adapted from Mael’s (1988) model of organizational identification. Questions in the study focus particularly on a graduates’ connection to an institution through intercollegiate athletics. The next measure in this study relates to affective commitment to an institution and is adapted from Meyer and Allen (1984), assessing the relationship between alumni and their connection to the institution. The final measure is based on satisfaction and relates to a graduates’ feeling of contentment with his or her alma mater from the Brayfield and Rothe (1951) measure of satisfaction.

When performing survey research, Fraenkel and Wallen (2006) emphasize the importance of ensuring that instruments used in a study are both reliable and valid. The authors describe how reliability relates to accuracy of the instrument, while validity ensures a study is properly constructed to measure what the researcher intends to investigate. Creswell (2014) suggests three ways to examine the appropriateness of drawing inferences from existing instruments in quantitative research. These three forms include: content validity, which observes whether the instrument measures the “intended” content; predictive validity, which examines
whether the instrument “correlates with other results; and finally construct validity, which measures whether the instrument is appropriately connected to the hypothetical constructs and concepts (p. 160).”

In an effort to provide a valid and reliable instrument, careful consideration was taken to use focused questions linked to specific research questions and related theory. The outcome prosocial variable for the study was connected by a framework of three independent variables used by Tidwell (2005). Each of the survey questions were adapted from Tidwell’s (2005) model, and instead of focusing on a non-profit organization, this particular study concentrated on an audience of higher education alumni. As suggested by Creswell (2014), the questions for the survey are in a direct, simple format and language in efforts to ensure consistency and provide a reliable instrument for the study. In addition, the questions were presented in an organized, easy-to-follow conversational style as suggested by Dillman et al. (2007). The survey instrument consists of 20 questions along with 16 demographic and socio-economic questions (See Appendix D). Each of the four variables, one dependent and three independent, connects to five specific survey questions within the instrument, and the tool features three reverse questions to further help gauge the reliability of the instrument (Fowler, 2009). These 20 questions are measured in an ordinal fashion on a five-point Likert scale, ranging from strongly disagree to strongly agree.

Instead of creating constructs for the study to address the “Impact of Intercollegiate Athletics in Relationship to the Prosocial Behavior of Giving or Volunteering among Alumni of NCAA Division II Institutions,” the research utilizes accepted scales for each of the variables, however; some of the questions were slightly modified to fit the distinctiveness of a higher education population. For the organizational identification scale, Mael’s (1988) organizational
model was employed, and examples from this scale are: *When someone criticizes (name of school), it feels like a personal insult; I am very interested in what others think about (name of school)*; and *When I talk about this school, I usually say ‘we’ rather than ‘they’*. The affective commitment scale utilizes questions from Meyer & Allen’s (1984) organizational commitment scale. Examples of these questions include: *I do feel like 'part of the family' at (name of school)*; *I do feel 'emotionally attached' to (name of school)*; *Name of school) has a great deal of personal meaning for me*; and *I do feel a strong sense of belonging to (name of school)*. For the organizational satisfaction scale, the instrument employs questions from the Brayfield & Rothe (1951) organizational satisfaction scale. Examples of these questions include: *I find real enjoyment attending sporting events at (name of school)*; *I am enthusiastic about (name of school) Athletics;* and *Overall, I am satisfied with my educational experience at (name of school)*. In assessing the prosocial behavior outcome, questions such as *I am happy to give back financially or volunteer to (name of school) and I have served as a volunteer or am interested in serving as a volunteer at (name of school)* were utilized. These prosocial questions were similarly used in Tidwell’s (2005) study evaluating prosocial behavior in non-profit organizations.

In an effort to provide construct validity, the study administers post hoc statistical procedures for discriminant and convergent validity through common factor analysis as “factor analysis is extensively used in identifying the construct validity of a test or a scale in behavioral sciences (Bhattacharyya, 2006, p. 330). Convergent validity refers to the agreement between measures, while discriminant validity analyzes the distinctiveness between constructs (Campbell & Fisk, 1959). They work together to provide construct validity by examining the association of measures, “correlations between theoretically similar measures should be ‘high’ while
correlations between theoretically dissimilar measures should be ‘low’” (Trochim, 2006, para. 3). The divergent validity should register below 0.4 and the convergent validity above 0.7.

Frequently performed to assess construct validity, factor analysis reduces and summarizes data, and the tool “has been developed primarily for analyzing relationships among a number of measurable entities, such as survey items or test scores … and the underlying assumption of factor analysis is that there exists a number of unobserved latent variables” (UCLA, 2015, para. 2). More specifically, the study utilizes a common factor analysis technique since “the observed variables are only indicators of the latent constructs to be measured such as test scores or responses to attitude scales … then the appropriate technique to is select is common factor analysis” (Bhattacharyya, 2006, p. 300).

To ensure content validity of the study, representatives within Alumni Relations and Department of Athletics offices at a four-year public university evaluated the instrument, along with a small group of alumni from the institution. The reviewers of the survey were asked, as recommended by Fowler (2009) when performing a pre-test of a self-administered survey, about the clarity of the instructions, whether the questions were clear and if any problems existed in providing answers to the questions. In addition, the Tidwell (2005) study provides predictive validity in his evaluation of prosocial behavior in a non-profit setting. His findings show that “organizational identification had a direct and significant relationship with financial contributions (b = .52),” a “direct and positive relationship between organizational identification and organizational satisfaction (b = .70) and organizational commitment (b = .55)” and that “satisfaction and commitment would be positively related to engagement (b = .17)” (p. 458).

To measure the internal consistency of the scale, the study employs a Cronbach alpha analysis to examine reliability. Cronbach alpha assesses the relationship between constructs and
represents an indication of reliability associated with the variation accounted for by the true score of the underlying construct" (Hatcher, 1994). Nunnaly (1978) indicated .70 or higher to be an acceptable reliability coefficient. From Tidwell’s (2005) study, an alpha level of .77 was established for organizational construct, an alpha coefficient of .87 for affective commitment and an alpha level of .85 for the organizational satisfaction independent variable. The prosocial dependent variable registered a reliability coefficient score of .96.

In addition, the study employs an adaption of the Marlowe-Crowne Social Desirability scale (MCSD) used to evaluate how participants respond to surveys. The MCSD scale was developed to guard against the tendency of participants to respond in a socially desirable manner to attitudinal questionnaires due to a “need for social approval and acceptance” (Marlowe & Crowne, 1961, p. 109-110). To identify Social Desirability Bias (SDB), researchers sometimes utilize a Social Desirability Response (SDR) scale, often when a questionnaire contains sensitive questions. Näher and Krumpal (2012) found “that online surveys are prone to social desirability concerns, but argue that [the] effects of social desirability are less prevalent in online surveys compared to interviewer-administered surveys (p. 1613),” mainly due to the anonymity of online instruments. Tourangeau and Yan (2007) describe a question to be sensitive “when it asks for a socially undesirable answer, [and] when it asks in effect that the respondent admits he or she has violated a social norm” (p. 860). The authors provide examples such as questions regarding drug use, sexual behavior, voting and income. Critics of SDR scales cite “they lack ‘true’ scores, making it difficult or impossible to distinguish among respondents who are actually highly compliant with social norms” (p. 861).
The original MCSD scale consisted of 33 items, however; due to its length a number of researchers have offered modifications to the scale, and this study utilizes a version of the MCSD created by Strahan and Gerbasi (1972) called the X1. Fischer and Fick (1993) contend:

Of the original forms, X1, developed by Strahan and Gerbasi (1972), would be the form of choice. It is a significant improvement over all others, including the 33-item form developed by Crowne and Marlowe (1960). It is a 10-item scale, one of the shortest in length; it has high internal consistency and is highly correlated with the 33-item original scale (p. 423).

The 10-item scale consists of true and false questions and is presented in Appendix E of the study. Because the participating schools resisted including the social desirability scale to the survey, a small pilot with Strahan and Gerbasi’s X1 scale was performed and the results are provided in Chapter 4.

In addition to the X1 scale, the study utilizes a couple of other measures to guard against SDB as recommended by Paulhus (1991) and Tourangeau and Yan (2007). The study contains one question regarding income, and since income questions fall in the sensitive area, the survey used a question-wording approach suggested by Tourangeau and Yan (2007). The strategy is called unfolding brackets, and the authors describe how it allows researchers “to collect partial information from respondents who are unwilling or unable to provide exact amounts” (p. 874). In another approach for reducing SDR, Paulhus (1999) recommends that “the most obvious strategy is to assure respondents of anonymity” (p. 19). Both the consent form and the email to participate informed participants of survey anonymity along with the fact their respective institution would not be sharing any personal data with the principal investigator of the study, making it impossible to identify participants.

For participation in the study, the alumni and development offices of all NCAA Division II institutions in the South and Southeast Regions (approximately 70 schools) were contacted to
request participation. The institutions were first recruited through an introductory correspondence (See Appendix F) from the principal investigator, Gid Rowell, to a schools' Director of Alumni Relations and to an institution's Vice President for Advancement. The initial email gauged participation interest from a respective school and provided information on the purpose of the study. When an institution agreed through this initial contact for the surveying of its alumni, a school was sent a Site Authorization Form (See Appendix G), which provided additional information about the purpose and research methods of the study.

The alumni participants were identified by working with the respective Alumni offices at participating institutions, and the subjects initially learned of the study through an email by the respective Alumni Relations offices. The study followed protocol suggested by Dillman et al. (2007), implementing a multiple contact strategy. The initial email provided background about the study, introduced Gid Rowell as the principal investigator and included the link to the informed consent form and survey questions. Because of the sensitive nature of alumni contact information, each school retained custody of its list throughout the study and did not be provide any personal alumni information to anyone connected to this study. Before answering the survey questions, each participant was presented informed consent documentation and required to agree before proceeding with the survey. If a participant refused the informed consent requirement, the respondent was exited from the survey. Neither the required consent form nor any of the questions required a name or any type of personal identification, so there was no way to link any of the participants to an individual survey. After two weeks, a follow-up email thanked the alumni participants who had completed the survey and reminded others who had not participated. The survey was available for a three-week time frame.
Data Analysis and Interpretation

In presenting the data analysis and interpretation for the study, the process as suggested by Creswell (2014), consists of a series of steps. These steps include: 1) a report on the number of respondents of the survey; 2) a discussion on the method to determine if response bias exists; 3) a report on the approach to provide a descriptive analysis of the results. The plan includes findings on all independent, dependent and mediating variables; 4) an identification of the statistical computer program and rationale for the type of statistical measure chosen; and 5) an interpretation of the results from the statistical tests.

The respondents for the survey include alumni from eight NCAA Division II colleges and universities, featuring both public and private institutions and schools that have football and do not offer football among their sport programming. The reason for the different categorizations based on institution type, public and private, and whether schools offer football is based on findings from the literature that alumni from private schools (Baade & Sundberg, 1996; Brooker & Klastorin, 1981; Shulman & Bowen, 2001) tend to give back more financially and that football success (Martinez et al., 2010) is the top predictor of giving among all intercollegiate sports.

The descriptive statistics for this study include the means, standard deviations and ranges of scores for the demographic questions and the dependent and three independent variables. The outcome variable for the study represents prosocial behavior and measured in two sub-dimensions of financial contributions and volunteering, while the three independent variables are: organizational identification, affective commitment and satisfaction. To evaluate the research questions, the study utilizes several different statistical analyses based upon the inquiry of the research question. For the first three research questions which relate to the relationship
between a single independent variable (organizational identification, affective commitment and organizational satisfaction) and the dependent variable (prosocial behavior), the study employs a Pearson correlation to analyze the relationship between two variables. The Pearson product moment correlation is a widely used statistical test to measure the linear correlation between two variables (Mayers 2013), and Cramer (1998) states that a Pearson correlation “assesses the strength, direction and probability of the linear association between two interval or ratio variables” (p. 137). Because research question four examines the relationship between all three independent variables and the dependent variable, the study employs a multiple regression statistical test, which allows researchers the ability to examine “the combined relationship of multiple independent variables with a single dependent variable” (Creswell, 2009, p. 368). As suggested by Pedhazur (1982), multiple regression analysis “is applicable in designs consisting of a single dependent variable and two more independent variables … for the purpose of predicting or explaining a given phenomenon” (p. 8-9).

For research question five, which examines the impact of socio-demographic and school-level predictors, a step-wise multiple regression is performed to examine the relationship between these moderators and the variables of the study. Since this research question aims to explore the impact of certain demographic related variables rather than be explanatory in nature, stepwise regression fits as an appropriate statistical analysis. In addition, stepwise regression is used when a researcher explores a relationship with a large set of predictors (Aron & Aron, 1999). For assessing the impact of institutional-type factors (public versus private and football versus non-football) in the outcome variable, independent sample t-tests were performed. Independent t-test scores examine whether there is a difference between two unrelated groups (Cramer, 1998).
This chapter presented the rationale for the quantitative method of studying the impact of intercollegiate athletics on prosocial behavior among alumni of NCAA Division II institutions. Framed from a prosocial behavior theoretical lens, the study employs a survey instrument created by Tidwell (2005) that measures the prosocial outcome of financial giving and volunteering to an institution based on the predictor variables of organization identification, affective commitment and satisfaction. The study concentrates on a population of institutions that compete athletically at the NCAA Division II level, as few studies focus on Division II programs (Martinez et al., 2010). For the evaluation of the research questions, Pearson correlations, a multiple regression and a stepwise regression test are performed. In addition, an independent sample t-test is utilized to examine selected institutional characteristics. After the data has been measured statistically, an interpretation of the results is presented in Chapter 4 of the study.
CHAPTER IV
RESULTS

The previous chapter described the study design and methodology for the research analyzing the “Impact of Intercollegiate Athletics in Relationship to the Prosocial Behavior of Giving or Volunteering among Alumni of NCAA Division II Institutions.” The purpose of this research is to investigate the impact of college sports in encouraging graduates to either give back financially or to volunteer to help at their alma mater. The study concentrates on a specific type of institution, focusing only on colleges or universities that have NCAA Division II athletic programs and seeks to understand if college sport at this level creates among graduates a sense of community and encourages a connection to the college or university. The study hopes to learn more about the relationship between an institution, the school's alumni and its athletic program. Schools commit significant resources to college athletics in hopes of creating a wholesome community for students, faculty, alumni and the general public (Clotfelter, 2011; Fulks, 2014). The research investigates the alumni and athletic connection at NCAA Division II institutions since scholarly literature is lacking at this particular level (Martinez et al., 2010).

This chapter reports the results of the study and after a presentation of the participant demographics; this section continues with descriptive data from the web-based, online survey, followed by analytic results in relationship to the five research questions presented in Chapter 1. In conducting this study, the goal sets forth to answer the following research questions:
1. What is the relationship between organizational identification to an institution through intercollegiate athletics and prosocial behavior among graduates of post-secondary NCAA Division II institutions?

2. Is there a relationship between affective commitment through intercollegiate athletics and prosocial behavior by alumni at post-secondary NCAA Division II institutions?

3. Does a relationship exist between satisfaction with intercollegiate athletics and prosocial behavior by graduates at post-secondary NCAA Division II institutions?

4. What is the impact of intercollegiate athletics and the relationship of alumni prosocial behaviors such as financial giving or volunteering at a NCAA Division II institution?

5. If a relationship is determined between intercollegiate athletics and prosocial behavior among alumni of NCAA Division II institutions, what impact does institutional-type and demographic variables have on the relationship?

The population and sample for this study consisted of alumni from institutions that offer intercollegiate sports at the NCAA Division II level. Over 300 institutions in the U.S. compete in Division II level, and the respective institutions are divided into eight regions throughout the country. This study focused on schools that are members of the NCAA Division II South and Southeast Regions, which includes approximately 70 schools. Eight schools from these two regions agreed to participate, and the study focused on a sample of alumni population that graduated from 1990-2010. The date range was selected to ensure that all participating schools were competing at the NCAA Division II level at this time. The population during this time frame consisted of over 76,000 alumni from the eight schools, and the schools had approximately 33,000 email contacts for the sample (Appendix J).
With the delicate nature of handling alumni contact information, the primary researcher was not allowed custody of the email contact information for the alumni populations of the study and had to rely on the eight alumni directors at the schools for distribution the survey. The challenge of working with eight different contacts for dissemination of the instrument forced the primary researcher to perform what Bhattacharyya (2006) refers to as judgement sampling, where “the judgment or opinion of some experts forms the basis of the sampling method. It is expected that these samples would be better as the experts are supposed to know the population (p. 111).” The eight alumni directors qualify as the experts in the case, and the sample was chosen based on their recommendations with the outside assistance of the primary researcher. As mentioned, the population was stratified prior sampling, requesting only participants from 1990-2010 to ensure that all the institutions were competing at the NCAA Division II level when the respective graduates were matriculating. The primary researcher also kept the results of each school separate in order to examine the difference between private and public schools and institutions that played football.

The study employed a web-based online survey and participants were asked questions about their identification, commitment and satisfaction with their alma mater. In addition, the survey included demographic type inquiry such as questions pertaining to a graduate's major, student involvement, whether the graduate lived on campus, attended as a full-time student or worked while going school, etc. As discussed, the alumni participants were identified by working with the respective Alumni offices at the participating institutions, and the subjects initially learned of the study through an email sent to the graduate by the respective Alumni Relations Office of the school. The email provided background about the study and included a link to the survey. Each school was provided a different link to the survey, providing an extra layer of
anonymity among survey respondents and to easily separate the participants from each of the institutions.

In evaluating the data obtained through the survey, statistical tests were conducted using IBM SPSS v. 22.0. This section presents the descriptive statistics for variables, the data preparation methods and the analyses of reliability/validity scaling. Then, all five research questions are addressed using Pearson’s correlations, multiple regressions and independent sample t-tests. For the first three research questions which relate to the relationship between a single independent variable (organizational identification, affective commitment and organizational satisfaction) and the dependent variable (prosocial behavior), the study employs a Pearson correlation to analyze the relationship between two variables. The Pearson correlation is a widely used statistical test to measure the linear correlation between two variables (Mayers 2013). Since research question 4 examines the relationship between all three independent variables and the dependent variable, the study employs a multiple regression statistical test, which allows researchers the ability to see what impact multiple variables have on an outcome (Creswell, 2009).

For research question 5, which examines the impact of socio-demographic and school-level predictors, a step-wise multiple regression is performed to examine the relationship between these moderators and the variables of the study. As this research question aims to explore the impact of certain demographic related variables and is not explanatory in nature, stepwise regression fits as an appropriate statistical analysis (Aron & Aron, 1999). Additionally, independent sample t-tests were used to assess the impact of institutional-type factors such as public versus private and the difference between football and non-football schools with the
outcome variable of prosocial behavior. Independent t-test scores examine whether there is a difference between two unrelated groups (Cramer, 1998).

**Descriptive Statistics.** The preliminary dataset included 952 survey respondents, however; the survey protocol as suggested by Alabama’s Institutional Review Board (IRB) allowed for respondents to skip questions, and six participants did not answer any items on the survey and were subsequently removed from any further analysis, leaving a sample of 946. The total alumni population in the 1990-2010 timeframe from the eight schools in the study represented over 76,000 alumni, including over 51,000 public school graduates and almost 25,000 private school graduates. Within these populations, more than 19,000 emails were available for the public school alumni and over 14,000 for the private school alumni (See Appendix J). Although 33,000 email addresses were reported available by the participating institutions, difficulty lies in gauging how many email addresses are actually valid in college alumni databases.

Research is limited on the accuracy of alumni databases, but several years ago a data management company estimated that “on average, nonprofit organizations (such as universities, colleges and alumni organizations) lack valid email addresses for more than 80 percent of their total donors” (SHONW, 2004, para. 2). This approximation is not surprising as a 2012 Council for Advancement and Support of Education (CASE) benchmarking survey revealed that “less than 40 percent [of institutions] verify email data, and 56 percent of those who run checks do so every four to five years” (Simonetti, 2014, p. 36). To further complicate the issue, another data management service says that “email addresses change at a rate of 30 percent or more on most lists each year (Melissa Data, 2012). Based on this information and previous experience by the
primary investigator, the study chose to conservatively estimate that two-thirds of alumni email addresses were invalid.

Of the 946 participants, 621 (65.6%) attended private schools, while 325 (34.4%) went to public institutions, meaning a larger number of participants came from a smaller pool of the population. The sample also consisted of only 111 respondents who attended schools that offered football, signifying that almost 90% of the survey participants attended schools that did not participate in football. Utilizing the two-thirds threshold on email address accuracy and validity in non-profit databases, the 946 participants yielded a response rate of only 8.6%; however, the low response is offset by the large n-value, and the fact the sample was achieved through the use of a low-cost online survey, which provided a fitting representation of the alumni population desired. Based on the “Sample Size for a 95% Confidence Level” defined by Dillman et al. (2009), the overall sample meets the size needed for making observations at a 95% percent confidence level with a margin of an error ±5% with both a 50/50 and 80/20 split (See Appendix A).

The sample consists of a total of 358 (37.8%) male, 586 (61.9%) female respondents and two participants did not respond to the initial question. The study surveyed graduates during a time period from 1990-2010, and the respondents were somewhat evenly distributed with most participants graduating between 2006-10 (36.5%). The other three graduation date ranges of 1990-95, 1996-00 and 2001-05, all had an approximate 20% participant rate. Over 87% percent of the students were 25 or under when graduating and 96% identified as full-time students with 86% living on or near campus. In hours per week spent in co-curricular activities, 83% indicated they spent at least an hour per week in school-related activities outside of academics with 43.1% spending more than six hours per week in those type activities. Over 84% of the participants
identified as working as a student and more than 72% received financial aid. Liberal Arts and Business were the two most prevalent degrees at 37% and 29%, followed by STEM at 17%. For the question of NCAA participation, 27% of participants identified as intercollegiate student-athletes. Almost 60% of the respondents stated that they contribute financially to the institution. In regards to current residence, almost 45% indicated they live less than 100 miles from their alma mater.

Table 2

Overview of Demographic and School-related Variables

<table>
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<tr>
<th>Demographic Variable</th>
<th>Response Categories</th>
<th>Frequency</th>
<th>Valid Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Male</td>
<td>358</td>
<td>37.8</td>
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<tr>
<td></td>
<td>Female</td>
<td>586</td>
<td>61.9</td>
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<tr>
<td></td>
<td>Other</td>
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<td>.2</td>
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<tr>
<td>College Attended</td>
<td>Private 1</td>
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<td>14.8</td>
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<tr>
<td></td>
<td>Public 1</td>
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<td>7.0</td>
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<tr>
<td></td>
<td>Private 2</td>
<td>279</td>
<td>29.5</td>
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<td></td>
<td>Public 2</td>
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<td>4.9</td>
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<tr>
<td></td>
<td>Public 3</td>
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<td></td>
<td>Private 4*</td>
<td>55</td>
<td>5.8</td>
</tr>
<tr>
<td>Graduation Year (Bachelors)</td>
<td>1990-1995</td>
<td>218</td>
<td>23.2</td>
</tr>
<tr>
<td></td>
<td>1996-2000</td>
<td>173</td>
<td>18.4</td>
</tr>
<tr>
<td></td>
<td>2001-2005</td>
<td>206</td>
<td>21.9</td>
</tr>
<tr>
<td></td>
<td>2006-2010</td>
<td>343</td>
<td>36.5</td>
</tr>
<tr>
<td>Age at Graduation</td>
<td>25 or under</td>
<td>823</td>
<td>87.3</td>
</tr>
<tr>
<td></td>
<td>26-39</td>
<td>87</td>
<td>9.2</td>
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<tr>
<td></td>
<td>40 or over</td>
<td>33</td>
<td>3.5</td>
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### Student Attendance Status

<table>
<thead>
<tr>
<th>Status</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>904</td>
<td>95.9%</td>
</tr>
<tr>
<td>Part-time</td>
<td>39</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

### College Major

<table>
<thead>
<tr>
<th>Major</th>
<th>Count</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Business</td>
<td>277</td>
<td>29.3%</td>
</tr>
<tr>
<td>Health-related field</td>
<td>51</td>
<td>5.4%</td>
</tr>
<tr>
<td>Liberal arts</td>
<td>345</td>
<td>36.5%</td>
</tr>
<tr>
<td>STEM</td>
<td>164</td>
<td>17.4%</td>
</tr>
<tr>
<td>Other</td>
<td>108</td>
<td>11.4%</td>
</tr>
</tbody>
</table>

### Hours per week involved in co-curricular activities

<table>
<thead>
<tr>
<th>Hours</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 hours</td>
<td>161</td>
<td>17.0%</td>
</tr>
<tr>
<td>1-5 hours</td>
<td>376</td>
<td>39.8%</td>
</tr>
<tr>
<td>6-10 hours</td>
<td>194</td>
<td>20.5%</td>
</tr>
<tr>
<td>More than 10 hours</td>
<td>214</td>
<td>22.6%</td>
</tr>
</tbody>
</table>

### Did you work as a student

<table>
<thead>
<tr>
<th>Work Status</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>801</td>
<td>84.8%</td>
</tr>
<tr>
<td>No</td>
<td>144</td>
<td>15.2%</td>
</tr>
</tbody>
</table>

### Did you compete as an NCAA student while attending

<table>
<thead>
<tr>
<th>Compete Status</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>255</td>
<td>27.0%</td>
</tr>
<tr>
<td>No</td>
<td>691</td>
<td>73.0%</td>
</tr>
</tbody>
</table>

### Did you receive financial aid as a student

<table>
<thead>
<tr>
<th>Aid Status</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>661</td>
<td>72.5%</td>
</tr>
<tr>
<td>No</td>
<td>247</td>
<td>27.5%</td>
</tr>
</tbody>
</table>

### How much of your income do you contribute to school

<table>
<thead>
<tr>
<th>Contribution</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>337</td>
<td>41.8%</td>
</tr>
<tr>
<td>Less than 5%</td>
<td>288</td>
<td>35.7%</td>
</tr>
<tr>
<td>5-10%</td>
<td>76</td>
<td>9.4%</td>
</tr>
<tr>
<td>More than 10%</td>
<td>106</td>
<td>13.1%</td>
</tr>
</tbody>
</table>

### How far do you currently live from campus

<table>
<thead>
<tr>
<th>Distance</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 100 miles</td>
<td>411</td>
<td>44.7%</td>
</tr>
<tr>
<td>100-250 miles</td>
<td>144</td>
<td>15.2%</td>
</tr>
<tr>
<td>More than 250 miles</td>
<td>364</td>
<td>39.6%</td>
</tr>
</tbody>
</table>

### As a student, did you live on campus

<table>
<thead>
<tr>
<th>Live Status</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>808</td>
<td>85.7%</td>
</tr>
<tr>
<td>No</td>
<td>135</td>
<td>14.3%</td>
</tr>
</tbody>
</table>

*Note.* The dataset includes missing items thus totals do not always equal the total dataset of 946.

*Institutions competing in NCAA Division II football.*

**Data Preparation.** Before conducting analyses, all data were examined for missing or miscoded variables and outlier cases. Three reverse items were recoded prior to scale testing.
(item 3, item 8, and item 14). Dummy codes were created for nominal variables to prepare them for regression analyses. Normal distribution was confirmed through SPSS using Q-Q plots, which are used to assess whether there is large departure from normality of distribution of variables (Scott, 2015). Furthermore, all skew values were between the recommended limits of ± 2.0 (Khine, 2013). Linearity between the dependent and independent variable was established through scatterplots and there was no overt indication of multi-collinearity or extreme outliers. The scatterplot matrix reported linear positive correlation of prosocial behavior with all three of the independent variables. See Appendix L for the Q-Q plots for the organizational identification, affective commitment, organizational satisfaction and prosocial behavior variables.

**Scale Reliability & Testing.** Four scales were utilized for the current study. In order to ensure construct reliability, Cronbach alpha tests were performed to examine internal consistency, measuring how closely related a set of items are as a group. A reliability coefficient of .70 or higher is acceptable in social science research (Nunnaly, 1978), and all four scales met that criterion. Table 3 presents these results.

Table 3

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization Identification (OID)</td>
<td>19.53</td>
<td>3.36</td>
<td>.71</td>
</tr>
<tr>
<td>Affective Commitment (AC)</td>
<td>19.75</td>
<td>3.79</td>
<td>.83</td>
</tr>
<tr>
<td>Organization Satisfaction (AS)</td>
<td>17.41</td>
<td>4.05</td>
<td>.82</td>
</tr>
<tr>
<td>Prosocial Behavior (PSB)</td>
<td>17.07</td>
<td>3.76</td>
<td>.70</td>
</tr>
</tbody>
</table>
The five-item scale for “organizational identification” ranged from 5-25, with a mean score of 19.53 (SD = 3.36). Cronbach’s alpha test demonstrated a strong level of internal consistency for this measure (a = .71). Within the organizational identification variable, the Cronbach alpha coefficient would have slightly improved with the removal of question 14 in Section II of the survey (*I am not interested in what the community thinks about (name of school)*); however, the question was retained since the difference was only negligible (.71 versus .72) and also since the question was used in Mael’s (1988) organizational study, which was utilized as a model for this study. Table 4 presents these results.

Table 4

**Organizational Identification Scale - Cronbach Alpha if Item Deleted**

<table>
<thead>
<tr>
<th>Organizational Identification (OID) Scale</th>
<th>Scale Mean if Item Deleted</th>
<th>Cronbach’s Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section II, Question 2 - I am proud to wear (name of school) athletic gear such as (name of school) t-shirts, sweat shirts, hats, etc.</td>
<td>15.54</td>
<td>.65</td>
</tr>
<tr>
<td>Section II, Question 6 - When someone criticizes (name of school), it feels like a personal insult.</td>
<td>15.71</td>
<td>.63</td>
</tr>
<tr>
<td>Section II, Question 10 - I take pride when one of (name of school) athletic teams wins a sporting contest.</td>
<td>15.71</td>
<td>.62</td>
</tr>
<tr>
<td>Section II, Question 14 - I am not interested in what the community thinks about (name of school). (R)</td>
<td>15.49</td>
<td>.72</td>
</tr>
<tr>
<td>Section II, Question 18 - When I talk about (name of school), I say ‘we’ rather than ‘they.’</td>
<td>15.68</td>
<td>.67</td>
</tr>
</tbody>
</table>

A five-item scale for “affective commitment” was constructed. The scale ranged from 5-25, with a mean score of 19.75 (SD = 3.79). Cronbach’s alpha test demonstrated a very strong level of internal consistency for this measure (a = .83). Within the affective commitment
variable, each of the constructs’ reliability coefficients were examined, and the removal of any of the five constructs would not have improved the overall Cronbach alpha score for the affective commitment variable. Table 5 shows these results.

Table 5

Affective Commitment Scale - Cronbach Alpha if Item Deleted

<table>
<thead>
<tr>
<th>Affective Commitment (AC) Scale</th>
<th>Scale Mean if Item Deleted</th>
<th>Cronbach’s Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section II, Question 3 - I do not feel a strong sense of belonging to my (name of school). (R)</td>
<td>16.00</td>
<td>.82</td>
</tr>
<tr>
<td>Section II, Question 7 - (Name of school) has a great deal of personal meaning for me.</td>
<td>15.61</td>
<td>.77</td>
</tr>
<tr>
<td>Section II, Question 11 - (Name of school) has a great deal of personal meaning for me.</td>
<td>16.11</td>
<td>.79</td>
</tr>
<tr>
<td>Section II, Question 15 - I enjoy conversations in which we recall experiences that happened at (name of school).</td>
<td>15.50</td>
<td>.81</td>
</tr>
<tr>
<td>Section II, Question 19 - I do feel “emotionally attached” to (name of school).</td>
<td>15.76</td>
<td>.77</td>
</tr>
</tbody>
</table>

Additionally, a five-item scale for “organizational satisfaction” was constructed and tested. The scale ranged from 5-25, with a mean score of 17.41 (SD = 4.05). Cronbach’s alpha test demonstrated a very strong level of internal consistency for this measure (a = .82). Within the organizational satisfaction variable, the Cronbach alpha coefficient would have slightly improved with the removal of question 16 in Section II of the survey (Overall, I am satisfied with my educational experience at (name of school); however, a decision was made to retain the question, since the initial Cronbach alpha score (a = .82) with all five constructs was well above the .70 threshold for internal consistency and because of the rich literature on the importance of alumni satisfaction in relationship to educational experience (Baade & Sundberg, 1996;
The results are presented in Table 6.

Table 6

*Organizational Satisfaction Scale - Cronbach Alpha if Item Deleted*

<table>
<thead>
<tr>
<th>Organizational Satisfaction (OS) Scale</th>
<th>Scale Mean if Item Deleted</th>
<th>Cronbach’s Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section II, Question 4 - I find real enjoyment attending sporting events at (name of school).</td>
<td>14.26</td>
<td>.77</td>
</tr>
<tr>
<td>Section II, Question 8 - When I go back to (name of school), I wouldn’t waste my time by going to a game. (R)</td>
<td>13.90</td>
<td>.79</td>
</tr>
<tr>
<td>Section II, Question 12 - I am enthusiastic about (name of school) Athletics.</td>
<td>14.25</td>
<td>.76</td>
</tr>
<tr>
<td>Section II, Question 16 - Overall, I am satisfied with my educational experience at (name of school).</td>
<td>12.95</td>
<td>.87</td>
</tr>
<tr>
<td>Section II, Question 20 - I enjoy keeping up and reading about athletic wins and losses of (name school) teams.</td>
<td>14.28</td>
<td>.77</td>
</tr>
</tbody>
</table>

The dependent variable, “prosocial behavior” among graduates, was also measured through a five-point scale ranging from 5-25, with a mean score of 17.07 (SD = 3.76). The Cronbach’s alpha for this scale was strong (a = .70). Within the prosocial behavior variable, the Cronbach alpha coefficient would have slightly improved with the removal of question 1 in Section II of the survey (*I attended (name of school) athletic games as a student*); however, the question was retained since the difference was only slight (.70 versus .73). A decision was also made to not delete the question, since the question fit in Tidwell’s (2005) prosocial behavior model for which this study is framed. The literature (Clotfelter, 2001; Delaney, 2004; Harrison et al., 1995; Monks, 2003; Okunade, Wunnava & Walsh, 1994; Sun, Hoffman & Grady, 2007) also
is rich in citing the importance of students becoming engaged to the institution through social activities in leading to prosocial behavior. Table 7 shows these results.

Table 7

Prosocial Behavior Scale - Cronbach Alpha if Item Deleted

<table>
<thead>
<tr>
<th>Prosocial Behavior (PSB) Scale</th>
<th>Scale Mean if Item Deleted</th>
<th>Cronbach’s Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section II, Question 1 - I attended (name of school) athletic games as a student.</td>
<td>13.75</td>
<td>.73</td>
</tr>
<tr>
<td>Section II, Question 5 - As a graduate, I attend (name of school) events when I am able.</td>
<td>14.25</td>
<td>.56</td>
</tr>
<tr>
<td>Section II, Question 9 - I am happy to give back financially or volunteer to (name of school).</td>
<td>13.60</td>
<td>.55</td>
</tr>
<tr>
<td>Section II, Question 13 - I have served as a volunteer or am interested in serving as a volunteer at (name of school).</td>
<td>14.00</td>
<td>.57</td>
</tr>
<tr>
<td>Section II, Question 17 - I recommend (name of school) to potential students when they are looking for a school to attend.</td>
<td>12.71</td>
<td>.64</td>
</tr>
</tbody>
</table>

**Construct Validity.** The study administered common factor analysis to assess the construct validity for the scales for the study (Bhattacharyya, 2006). This method reduces and summarizes data, and the technique “has been developed primarily for analyzing relationships among a number of measurable entities, such as survey items or test scores” (UCLA, 2015, para. 2). Convergent and discriminant validity work together to provide validity by examining the association of measures, and the divergent validity should register below .40 and the convergent validity above .70 (Trochim, 2006). The study utilized this method since “the observed variables are only indicators of the latent constructs to be measured such as test scores or responses to attitude scales … then the appropriate technique to select is common factor analysis”
Within each of the four constructs of organizational identification, affective commitment, organizational satisfaction and prosocial behavior, five questions are tied to the variable. Convergent validity was assessed for each construct, and organization identification, affective commitment and prosocial behavior registered at or above the .70 threshold (OID = .78, AC = .70, PSB = .79). Organization satisfaction scored just below .70 (OS = .68); however, given the pre-selected nature of this particular scale, it was decided to retain all items for further analyses. After examining the convergent validity, the divergent validity was measured between the four constructs, and all the correlations registered under the .40 threshold.

Social Desirability Scale. As mentioned in the preceding Methods chapter, a small pilot of 50 alumni provided results to a modified version of the Marlowe-Browne (1960) social desirability scale by Strahan and Gerbasi (1972). The results from the social desirability scale, which featured yes or no questions, were mixed. Out of the 10 questions, five questions scored in the median range of 1.50, while two questions skewed in a socially desirable response type manner and three questions skewed in a non-socially desirable response type way. Since the results of the alumni pilot were inconclusive and given the conflicting literature on the utility of social desirability tests (Tourangeau & Yan, 2007), along with the resistance from the participating schools’ alumni directors to these specific questions, a decision was made to exclude the social desirability questions from the survey.

Research Question Findings

In the following section, the results to the statistical tests in relationship to the five research questions are provided. See Table 8 for the descriptive and scale characteristics for the three independent and dependent variables, followed by the findings from each of the five
research questions. In addition, this section provides results for the institutional-type factors of private versus public and football versus non-football schools.

Table 8

Scale Characteristics for Independent and Dependent Variables

<table>
<thead>
<tr>
<th>Scale Variable</th>
<th>Statistic</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Identification (OID)</td>
<td>Mean</td>
<td>19.53</td>
</tr>
<tr>
<td></td>
<td>Standard Deviation</td>
<td>3.36</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>19.00</td>
</tr>
<tr>
<td></td>
<td>Skewness</td>
<td>-.53</td>
</tr>
<tr>
<td>Affective Commitment (AC)</td>
<td>Mean</td>
<td>20.75</td>
</tr>
<tr>
<td></td>
<td>Standard Deviation</td>
<td>3.79</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>19.00</td>
</tr>
<tr>
<td></td>
<td>Skewness</td>
<td>-.91</td>
</tr>
<tr>
<td>Organizational Satisfaction (OS)</td>
<td>Mean</td>
<td>17.41</td>
</tr>
<tr>
<td></td>
<td>Standard Deviation</td>
<td>4.05</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>17.00</td>
</tr>
<tr>
<td></td>
<td>Skewness</td>
<td>-.28</td>
</tr>
<tr>
<td>Prosocial Behavior (PSB)</td>
<td>Mean</td>
<td>17.08</td>
</tr>
<tr>
<td></td>
<td>Standard Deviation</td>
<td>3.76</td>
</tr>
<tr>
<td></td>
<td>Median</td>
<td>17.00</td>
</tr>
<tr>
<td></td>
<td>Skewness</td>
<td>-.36</td>
</tr>
</tbody>
</table>

**Research Question 1:** What is the relationship between organizational identification to an institution through intercollegiate athletics and prosocial behavior among graduates of post-secondary NCAA Division II institutions?

The relationship between the independent variable of organizational identification (OID) to an institution through intercollegiate athletics and the dependent variable of prosocial behavior (PSB) among graduates of post-secondary NCAA Division II institutions was tested using a Pearson correlation test. This test produces a value between +1 and -1 inclusive, wherein 1 is a
total positive correlation, 0 is no correlation, and -1 is a total negative correlation (Mayers 2013).

In this instance, there was a highly significant correlation between organizational identification to an institution through intercollegiate athletics and prosocial behavior among graduates ($r = .653$, $n = 894$, $p \leq .001$), with higher levels of OID being positively associated with prosocial behavior. See Appendix M for a scatterplot that summarizes the results. With a Pearson product-moment correlation coefficient of .653, the results show that changes in the organizational identification variable (OID) are strongly correlated with changes in the prosocial behavior variable (PSB), and the positive relationship indicates that when one variable increases in value, the second variable also increases. See Table 9 for the results.

Table 9

<table>
<thead>
<tr>
<th>Prosocial Behavior (PSB)</th>
<th>Organizational Identification (OID)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>.653</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000*</td>
</tr>
<tr>
<td>N</td>
<td>894</td>
</tr>
</tbody>
</table>

*p ≤ .001.

**Research Question 2:** Is there a relationship between affective commitment through intercollegiate athletics and prosocial behavior by alumni at post-secondary NCAA Division II institutions?

The relationship between the independent variable of affective commitment (AC) through intercollegiate athletics and the dependent variable of prosocial behavior among graduates of post-secondary NCAA Division II institutions was tested using Pearson’s correlation test. The test demonstrated a highly significant correlation between affective commitment through intercollegiate athletics and prosocial (PSB) among graduates ($r = .597$, $n = 893$, $p \leq .001$), with
higher levels of AC being positively associated with prosocial behavior. See Appendix N for a scatterplot that summarizes the results. With a Pearson product-moment correlation coefficient of .597, the results indicate that changes in affective commitment (AC) are correlated with changes in prosocial behavior (PSB), and the positive relationship shows that when one variable increases in value, the second variable also increases. Table 10 presents the results.

Table 10

Prosocial Behavior and Affective Commitment Pearson Correlation

<table>
<thead>
<tr>
<th>Affective Commitment (AC)</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prosocial Behavior (PSB)</td>
<td>.597</td>
<td>.000*</td>
<td>893</td>
</tr>
</tbody>
</table>

*p ≤ .001.

Research Question 3: Does a relationship exist between organizational satisfaction with intercollegiate athletics and prosocial behavior by graduates at post-secondary NCAA Division II institutions?

The relationship between the independent variable of organizational satisfaction (OS) with intercollegiate athletics and the dependent variable of prosocial behavior (PSB) among graduates of post-secondary NCAA Division II institutions was tested using a Pearson correlation test. In examining this relationship, a highly significant correlation between satisfaction with intercollegiate athletics and prosocial behavior was found among graduates (r = .691, n = 887, p ≤ .001), with higher levels of OS being positively associated with prosocial behavior. See Appendix O for a scatterplot that summarizes the results. With a Pearson product-moment correlation coefficient of .691, the results indicate that changes in the organizational
satisfaction (OS) variable are strongly correlated with changes in the prosocial behavior (PSB) variable, and the positive relationship indicates that when one variable increases in value, the second variable also increases. See Table 11.

Table 11

Prosocial Behavior and Organizational Satisfaction Pearson Correlation

<table>
<thead>
<tr>
<th>Prosocial Behavior (PSB)</th>
<th>Organizational Satisfaction (OS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>.691</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000*</td>
</tr>
<tr>
<td>N</td>
<td>887</td>
</tr>
</tbody>
</table>

*p ≤ .001.

Research Question 4: What is the impact of intercollegiate athletics and the relationship of alumni prosocial behaviors such as financial giving or volunteering at a NCAA Division II institution?

A multiple regression model was constructed to test the overall impact of intercollegiate athletics and the relationship of alumni prosocial behavior (financial giving or volunteering). As described by Cramer (1998), multiple linear regression is performed to model the relationship between two or more explanatory variables. In this case, the predictor variables of organizational identification (OID), affective commitment (AC) and organizational satisfaction (OS) are tested in relationship with the outcome variable of prosocial behavior (PSB) among alumni of NCAA Division II schools. All three independent scale variables were entered into the multiple regression model, and a significant regression equation was found (F(3,867) = 409.201, p ≤ .001, R² = .586). The model is highly significant at p ≤ .001, and a R² value of .586, accounts for 58.6% of the variance in prosocial behavior.
In multiple regression tests, \( b \) values show the relationship between the outcome variable and an independent predictor variable if all other predictors are held constant. A positive relationship indicates that when the independent variable increases the dependent variable will also increase (Field, 2009). The analysis shows that all three explanatory variables, organizational identification (\( b = .214, p \leq .001 \)), affective commitment (\( b = .268, p \leq .001 \)), and organizational satisfaction (\( b = .419, p \leq .001 \)) are predictive values of prosocial behaviors and display a positive relationship. Measured in standard deviation units, standardized beta values (\( \beta \)), allow for direct comparisons between independent variables with the higher value indicating more impact on the outcome variable (Field, 2009). The results indicate that the organizational satisfaction displayed the highest impact (\( b = .419 \)), followed by affective commitment (\( b = .268 \)) and organizational identification (\( b = .214 \)). Table 12 presents the results.

Table 12

*Summary of Multiple Regression for Variables Predicting Prosocial Behavior*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Prosocial Behavior (PSB)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE B</td>
<td>( \beta )</td>
<td>Sig.</td>
</tr>
<tr>
<td>Constant</td>
<td>-4.889</td>
<td>.648</td>
<td>---</td>
<td>.000</td>
</tr>
<tr>
<td>Organization Identification</td>
<td>.292</td>
<td>.044</td>
<td>.214</td>
<td>.000*</td>
</tr>
<tr>
<td>(OID)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affective Commitment (AC)</td>
<td>.379</td>
<td>.039</td>
<td>.268</td>
<td>.000*</td>
</tr>
<tr>
<td>Organization Satisfaction</td>
<td>.610</td>
<td>.043</td>
<td>.419</td>
<td>.000*</td>
</tr>
<tr>
<td>(AS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( R^2 )</td>
<td></td>
<td></td>
<td>.586</td>
<td></td>
</tr>
<tr>
<td>( F )</td>
<td></td>
<td></td>
<td>409.201</td>
<td></td>
</tr>
</tbody>
</table>

*p \leq .001.*
Research Question 5: If a relationship is determined between intercollegiate athletics and prosocial behavior among alumni of NCAA Division II institutions, what impact does institutional-type and demographic variables have on the relationship?

Additional analyses were conducted to explore the potential impact of socio-demographic and school-related factors on the relationship between intercollegiate athletics and prosocial behavior. These were formulated to see if any socio-demographic or school-related variables act as moderators on the relationship between intercollegiate athletics and prosocial behavior. In statistical analyses, a moderator is a categorical or quantitative variable that affects the direction and/or strength of the relationship between a predictor and a dependent variable (Baron & Kenny, 1986). In other words, it is a variable that impacts on the tested relationship. In a regression model, a moderating effect is indicated by the inclusion of an interaction term, constructed as the product of a predictor and a moderator, as illustrated in Figure 1.

Figure 1
Graphic representation of a moderating relationship
First, a stepwise regression model was constructed to test for significant socio-demographic and school-level predictors of prosocial behavior. Stepwise regression is a type of semi-automatic model building where the predictive variables are included in the model based on t-test scores. Stepwise regressions are often criticized for being prone to over-fitting data; however, they are beneficial in circumstances where the model building is exploratory rather than confirmatory (Tabachnick & Fiddel, 2001). Since this research question aims to explore the potential relationship of certain demographic and school-level variables, this type of model serves as a valuable first-step in model construction. The regressions were split into four different tests, the first one was simply the dependent variable with socio-demographic, while the next three regressions included one of the three independent variables (OID, AC, OS) in the stepwise test.

In the first regression examining prosocial behavior and the socio-demographic variables, eight possible moderators were entered into the model: sex, age at graduation, whether student was full-time or part-time, residential or off-campus living, student involvement, whether a student worked, NCAA student-athlete and whether a student received financial aid. The model was predicted with two out of the eight predictors in two steps. While the model was statistically significant \(F(2, 891) = 56.904, p \leq .001, R^2 = .113, \text{Adjusted } R^2 = .111\), the variables account for a very small amount of prosocial behavior with a \(R^2\) value of .113 or 11.3% of the outcome variable variance. Both student involvement \((b = .289, p \leq .001)\) and NCAA student-athlete participation \((b = .108, p \leq .05)\) revealed to be predictive variables in the initial analysis of the step-wise regression with student involvement impacting the relationship more with a standardized beta value \((\beta)\) of .289 compared to .108 for the student-athlete variable. For complete results, see Table 13.
Table 13

Summary of Prosocial Behavior Stepwise Regression Model with Socio-demographic Moderators

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>16.122</td>
<td>.663</td>
<td>---</td>
<td>.000</td>
</tr>
<tr>
<td>Student involvement (Q, I#6)</td>
<td>1.075</td>
<td>.123</td>
<td>.289</td>
<td>.000*</td>
</tr>
<tr>
<td>Student-athlete (Q, I#11)</td>
<td>-.930</td>
<td>.285</td>
<td>-.108</td>
<td>.001**</td>
</tr>
<tr>
<td>Sex (Q, I#1)</td>
<td>.122</td>
<td>.251</td>
<td>.016</td>
<td>.626</td>
</tr>
<tr>
<td>Age at graduation (Q, I#3)</td>
<td>-.232</td>
<td>.334</td>
<td>-.027</td>
<td>.488</td>
</tr>
<tr>
<td>Full-time or part-time (Q, I#4)</td>
<td>-.257</td>
<td>.695</td>
<td>-.013</td>
<td>.712</td>
</tr>
<tr>
<td>Lived on campus (Q, I#7)</td>
<td>-.261</td>
<td>.406</td>
<td>-.024</td>
<td>.521</td>
</tr>
<tr>
<td>Worked as student (Q, I#10)</td>
<td>-.191</td>
<td>.345</td>
<td>-.018</td>
<td>.580</td>
</tr>
<tr>
<td>Received financial aid (Q, I#14)</td>
<td>.234</td>
<td>.220</td>
<td>.034</td>
<td>.290</td>
</tr>
</tbody>
</table>

\[ R^2 = .113 \]
\[ F = 56.904 \]

*p ≤ .001. **p ≤ .05.

Next, the potential impact of socio-demographic and school-level factors on the relationship between prosocial behavior and the three independent variables related to intercollegiate athletics are explored. A model testing the relationship between organizational identification (OID) with prosocial behavior was constructed, controlling for the following demographic and school-level variables: 1) sex, 2) age at graduation, 3) part-time or full-time status, 4) student involvement, 5) living on or off-campus, 6) whether student worked while attending, 7) NCAA student-athlete, and 8) whether student received financial aid. These predictors were chosen based on alumni giving literature which shows these key factors may
play a role in association to prosocial behavior. Then, all potential predictors were entered into a two-step regression model to determine what impact, if any, these factors had on the relationship between organizational identification and prosocial behavior. Controlling for all variables, OID remained a statistically significant predictor of prosocial behavior \((b = .650, t(883) = 25.412, p \leq .001)\), along with student involvement \((b = .168, t(883) = 5.99, p \leq .001)\). When including predictors on this analysis, age at graduation was also a significant predictor, with younger graduates associated with more prosocial behavior \((b = -.063, t(883) = -2.068, p \leq .05)\). With a standardized beta value \((\beta)\) of .168, student involvement revealed a slightly higher impact on prosocial behavior than age graduation at -0.63 when the organizational identification variable was entered into the equation. The value for the age at graduation variable showed that younger graduates displayed a greater tendency for prosocial behavior. The model also explained a significant proportion of variance of prosocial behavior scores \((R^2 = .468, F(9, 883) = 85.263, p \leq .001)\) with a \(R^2\) value of .468, accounting for 46.8% of the outcome variable variance. To view the complete results, see Table 14.

Table 14

Summary of PSB Stepwise Regression Model with OID Variable and Socio-demographic Moderators

<table>
<thead>
<tr>
<th>Variables</th>
<th>Prosocial Behavior (PSB)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
</tr>
<tr>
<td>Constant</td>
<td>4.332</td>
</tr>
<tr>
<td>Organizational Identification (OID)</td>
<td>.838</td>
</tr>
<tr>
<td>Age at graduation (Q, I-#3)</td>
<td>-.540</td>
</tr>
<tr>
<td>Student involvement (Q, I-#6)</td>
<td>.626</td>
</tr>
<tr>
<td>Sex (Q, I-#1)</td>
<td>-.096</td>
</tr>
</tbody>
</table>
A second model was constructed to test the impact of socio-demographic and school-level factors on the relationship between affective commitment (AC) and prosocial behavior, controlling for the following demographic and school-level variables: 1) sex, 2) age at graduation, 3) part-time or full-time status, 4) student involvement, 5) living on or off-campus, 6) whether student worked while attending, 7) NCAA student-athlete, and 8) whether student received financial aid. Then, all potential predictors were entered into a regression model to determine what impact, if any, these factors had on the relationship between affective commitment and prosocial behavior. Controlling for all variables, AC remained a statistically significant predictor of prosocial behavior \((b = .591, t(882) = 21.765, \ p \leq .001)\), along with student involvement \((b = .164, t(882) = 5.470, p \leq .001)\) and NCAA student-athlete participation \((b = .124, t(882) = 4.380, p \leq .001)\). With a standardized beta value \(\beta\) of .164, student involvement revealed a slightly higher impact on prosocial behavior than NCAA student-athlete participation at .124 when the affective commitment variable was entered into the equation. The overall model explained a significant proportion of variance of prosocial behavior scores \(R^2 = .401, F(9, 882) = 64.863, p \leq .001\) with a \(R^2\) value of .401, accounting for 40.1% of the outcome variable variance. See Table 15 for complete results.
Table 15

*Summary of PSB Stepwise Regression Model with AC Variable and Socio-demographic Moderators*

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>4.920</td>
<td>1.680</td>
<td>---</td>
<td>.003</td>
</tr>
<tr>
<td>Affective Commitment (AC)</td>
<td>.738</td>
<td>.038</td>
<td>.555</td>
<td>.000*</td>
</tr>
<tr>
<td>Student involvement (Q, I-#6)</td>
<td>.608</td>
<td>.111</td>
<td>.164</td>
<td>.000*</td>
</tr>
<tr>
<td>Student-athlete (Q, I-#11)</td>
<td>-1.073</td>
<td>.245</td>
<td>-1.24</td>
<td>.000*</td>
</tr>
<tr>
<td>Sex (Q, I-#1)</td>
<td>-.134</td>
<td>.208</td>
<td>-.017</td>
<td>.520</td>
</tr>
<tr>
<td>Age at graduation (Q, I-#3)</td>
<td>-.196</td>
<td>.277</td>
<td>-.023</td>
<td>.480</td>
</tr>
<tr>
<td>Full-time or part-time (Q, I-#4)</td>
<td>-.741</td>
<td>.574</td>
<td>-.039</td>
<td>.197</td>
</tr>
<tr>
<td>Lived on campus (Q, I-#7)</td>
<td>.297</td>
<td>.339</td>
<td>.027</td>
<td>.381</td>
</tr>
<tr>
<td>Worked as student (Q, I-#10)</td>
<td>-.213</td>
<td>.286</td>
<td>-.020</td>
<td>.455</td>
</tr>
<tr>
<td>Received financial aid (Q, I-#14)</td>
<td>.090</td>
<td>.182</td>
<td>.013</td>
<td>.621</td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td></td>
<td>.401</td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td></td>
<td></td>
<td>64.863</td>
<td></td>
</tr>
</tbody>
</table>

*p ≤ .001.

Finally, a third model was constructed to test the impact of socio-demographic and school-level factors on the relationship between organizational satisfaction (OS) and prosocial behavior, controlling for the following demographic and school-level variables: 1) sex, 2) age at graduation, 3) part-time or full-time status, 4) student involvement, 5) living on or off-campus, 6) whether student worked while attending, 7) NCAA student-athlete, and 8) whether student received financial aid. Then, all potential predictors were entered into a regression model to determine what impact, if any, these factors had on the relationship between organizational satisfaction and prosocial behavior. Controlling for all variables, OS remained a statistically
significant predictor of prosocial behavior ($b = .688, t(875) = 28.043, p \leq .001$), along with student involvement ($b = .167, t(875) = 6.243, p \leq .001$) and NCAA student athlete participation ($b = .084, t(875) = 3.171, p \leq .05$). When including predictors in this analysis, living on campus was also a significant predictor ($b = .056, t(875) = 2.020, p \leq .05$). With a standardized beta value ($\beta$) of .167, student involvement revealed a slightly higher impact on prosocial behavior than both NCAA student-athlete participation at .124 and living on campus at .056 when the organizational satisfaction variable was entered into the equation. The overall model explained a significant proportion of variance of prosocial behavior scores ($R^2 = .518, F(9, 875) = 103.28, p \leq .001$) with a $R^2$ value of .518, accounting for 51.8% of the outcome variable variance. See Table 16 for the complete results.

Table 16

**Summary of PSB Stepwise Regression Model with OS Variable and Socio-demographic Moderators**

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE B</th>
<th>$\beta$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-.555</td>
<td>1.566</td>
<td>---</td>
<td>.723</td>
</tr>
<tr>
<td>Organizational Satisfaction (OS)</td>
<td>.989</td>
<td>.037</td>
<td>.680</td>
<td>.000*</td>
</tr>
<tr>
<td>Student involvement (Q, I-#6)</td>
<td>.619</td>
<td>.099</td>
<td>.167</td>
<td>.000*</td>
</tr>
<tr>
<td>Lived on campus (Q, I-#7)</td>
<td>-.618</td>
<td>.306</td>
<td>-.056</td>
<td>.044**</td>
</tr>
<tr>
<td>Student-athlete (Q, I-#11)</td>
<td>.724</td>
<td>.228</td>
<td>.084</td>
<td>.002**</td>
</tr>
<tr>
<td>Sex (Q, I-#1)</td>
<td>.300</td>
<td>.187</td>
<td>.038</td>
<td>.109</td>
</tr>
<tr>
<td>Age at graduation (Q, I-#3)</td>
<td>-.432</td>
<td>.251</td>
<td>-.050</td>
<td>.086</td>
</tr>
<tr>
<td>Full-time or part-time (Q, I-#4)</td>
<td>-.151</td>
<td>.522</td>
<td>-.008</td>
<td>.772</td>
</tr>
<tr>
<td>Worked as student (Q, I-#10)</td>
<td>-.373</td>
<td>.257</td>
<td>-.035</td>
<td>.146</td>
</tr>
<tr>
<td>Received financial aid (Q, I-#14)</td>
<td>.095</td>
<td>.164</td>
<td>.014</td>
<td>.563</td>
</tr>
</tbody>
</table>
Impact of Institutional-type Variables. In addition to examining the five research questions, the study also investigated the impact of institutional-type (public versus private) and if there was a difference in prosocial behaviors for schools that offered football versus schools that did not offer have football. This differentiation was based on alumni and athletic literature which shows that both factors may play a role in association to prosocial behavior. Independent t-test scores examine whether there is a difference between two unrelated groups (Cramer, 1998), therefore tests were conducted to compare the means for prosocial behavior to determine if there was a significant difference along the lines of school type (private or public) or the presence of a football team at the institution.

Overall, participants who attended a private school scored significantly higher (t(901) = 5.350, p ≤ .001) on the prosocial scale (M = 17.672, SD = 3.746) compared to those who attended a public school (M = 16.262, SD = 3.817). The results suggest a stronger relationship between private school alumni and prosocial behavior compared to public institution graduates. See Tables 17 and 18 for results.

Table 17

<table>
<thead>
<tr>
<th>Institution Type</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prosocial Behavior (PSB)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>590</td>
<td>17.672</td>
<td>3.74662</td>
</tr>
<tr>
<td>Public</td>
<td>313</td>
<td>16.262</td>
<td>3.81735</td>
</tr>
</tbody>
</table>

*p ≤ .001. **p ≤ .05.
Table 18

Prosocial Behavior and Public, Private School Independent Samples T-test

<table>
<thead>
<tr>
<th>T-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>t</td>
</tr>
<tr>
<td>----</td>
</tr>
<tr>
<td>(PSB) Equal variances assumed</td>
</tr>
</tbody>
</table>

*p ≤ .001.

An independent sample t-test was also conducted to test for differences in prosocial behavior between those who attended schools that offered football as a sport and those alumni who attended schools that did not offer football as a sport. In this test, those who attended football schools (M = 17.454, SD = 3.486) were slightly more likely to score higher on the prosocial behavior scale than those who attended non-football schools (M = 17.146, SD = 3.874), but this difference was not statistically significant (t(901) = .791, p ≤ .429). The results suggest no difference in prosocial behavior based upon whether a school has a football team. Tables 19 and 20 present results.

Table 19

Group Statistics for Independent Samples T-test for PSB and Football, Non-football

<table>
<thead>
<tr>
<th>Prosocial Behavior (PSB)</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Football</td>
<td>110</td>
<td>17.4545</td>
<td>3.48690</td>
</tr>
<tr>
<td>No Football</td>
<td>793</td>
<td>17.1463</td>
<td>3.87413</td>
</tr>
</tbody>
</table>

111
Summary of Results

In evaluating the data, the statistical tests indicated several relationships associated to prosocial behavior, which was established as the act of making financial contributions or volunteering at their alma mater. The first three research questions utilized individual Pearson correlations to examine the relationship between two variables. Research question 1 examined the relationship between organizational identification and prosocial behavior, research question 2 the relationship between affective commitment and prosocial behavior and research question 3 the relationship between organizational satisfaction and prosocial behavior.

When examining the three independent variables and the outcome variable in these separate correlations, organizational identification, affective commitment and organizational satisfaction, all displayed significant relationships leading to prosocial behavior. Organizational satisfaction demonstrated the strongest positive association \( r = 0.691, p \leq 0.001 \) and was based factors such as ‘attending athletic events,’ ‘satisfaction with experience’ and the ‘enjoyment of following athletic teams.’ Organizational identification presented a significant relationship \( r = 0.653, p \leq 0.001 \), displaying an association with factors such as ‘being proud to wear athletic gear,’ ‘taking pride for winning teams’ and ‘feeling like it is a personal insult when someone criticizes the school.’ The affective commitment variable also provided a significant relationship
revealing the importance of factors such as ‘feeling a sense of belonging,’ ‘being part of the family’ and ‘being emotionally attached’ to the institution.

Research question 4 employed a multiple regression, evaluating the impact of all three variables simultaneously in association to prosocial behavior. Organizational identification, affective commitment and organizational satisfaction were entered into a multiple regression, and all were highly significant \( (p \leq .001) \) in the prediction of prosocial behaviors. With a Beta coefficient of .419, organizational satisfaction impacted the response the most, followed by affective commitment at .268 and organizational identification at .214.

Research question 5 utilized a stepwise multiple regression in exploring the impact of socio-demographic and school-related factors in relationship to the independent variables (organizational identification, affective commitment and organizational satisfaction) and the dependent (prosocial behavior). Both student involvement and participation as a NCAA Division II student-athlete demonstrated statistically significant relationships in the initial overall model, while several predictors displayed significance when entered with the selected independent variables. Along with student involvement, age at graduation (younger age at graduation) showed to be a significant predictor of organizational identification, while student involvement and NCAA participation were the only two significant factors with affective commitment. When assessing with the organizational satisfaction variable, student involvement, NCAA participation and living on campus indicated to be statistically significant moderators.

Lastly, the study employed independent sample t-tests to gauge the impact of institutional-type factors in association with prosocial behavior. Graduates who attended private schools scored significantly higher on the prosocial scale, while little difference was shown in prosocial behavior between graduates of schools that played football versus schools that did not
have football among their intercollegiate sport offerings. The study continues in Chapter 5 with an analysis of results, followed by implications for further research, limitations, summary and conclusion and recommendations for practice.
CHAPTER V
DISCUSSION

With the enormous interest in intercollegiate sports and the increasing need for higher education institutions to garner more and more external financial support, the purpose of this study investigates the impact of intercollegiate athletics in association to prosocial behavior among alumni. Further, the study focuses on a specific group of postsecondary institutions, examining schools at the NCAA Division II level, as current literature tends to study only schools at the NCAA Division I and III levels (Martinez et al., 2010).

The study utilizes a quantitative method, and the measurement of prosocial behavior is framed in social identity theory, which suggests people attempt to categorize themselves and others based on membership, affiliation, age, gender, culture and other social characterizations (Tajfel & Turner, 1985). The study employs a survey instrument from Tidwell (2005) that assessed the prosocial outcome of financial giving and volunteering at non-profits based on the predictor variables of organization identification, affective commitment and organizational satisfaction.

Several studies focusing on charitable giving in higher education demonstrate a positive relationship between organizational identification (Mael & Ashforth, 1992; Mann, 2007) and organizational satisfaction (Baade & Sundberg, 1996; Clotfelter, 2001; Monks, 2003) encouraging alumni to give back to their alma mater. Research shows that engagement through organizational identification and organizational satisfaction lead to other types of prosocial behaviors such as attending events, volunteering and serving in leadership roles (Diehl, 2007;
Hanson, 2000; Harrison et al., 1995; Hunter et al., 1999; Hoyt, 2004; Lawley, 2008; Wunnava & Lauze; 2001). A number of studies focusing on intercollegiate athletics identify how college sports provide the opportunity to connect with an institution emotionally (Mahony et al., 2003; Stinson & Howard, 2010b; Tsiotsou, 2007), which relates to the affective commitment factor. Brittingham and Pezzullo (1990); Clotfelter (2001); Mael and Ashforth (1992); Mann (2007) and Weerts and Ronca (2007) emphasize the emotional link in alumni studies.

As discussed, the population and sample for the study consisted of alumni from institutions that offer intercollegiate sports at the NCAA Division II level. Divided into eight regions, Division II consists of over 300 institutions, and this particular study focused on members of the NCAA Division II South and Southeast Regions, which includes approximately 70 schools. The study surveyed eight schools from these two regions, concentrating on a sample alumni population that graduated from 1990-2010. The population during this time frame consisted of over 76,000 alumni from the eight schools, and the schools reported approximately 33,000 email contacts for the sample. More than half of the intuitions in the South and Southeast Region are private schools and less than half offer football among its intercollegiate sport offerings. The sample included four public and four private schools along with one public and one private institution that competed in football.

The study consisted of five research questions in examining the relationship between prosocial behavior and intercollegiate athletics at the NCAA Division II level. The first three research questions utilized individual Pearson correlations to examine the relationship between two variables. Research question 1 examined the relationship between organizational identification and prosocial behavior, research question 2 the relationship between affective commitment and prosocial behavior and research question 3 the relationship between
organizational satisfaction and prosocial behavior. Research question 4 examined the relationship between all three independent variables (organizational identification, affective commitment, organizational satisfaction) and the dependent variable (prosocial behavior), employing a multiple regression statistical test. Research question 5 explored the impact of socio-demographic and school-level predictors with the outcome variable through the use of a step-wise multiple regression. In addition, the study assessed the impact of institutional-type differences (public versus private and football versus non-football) through independent sample t-tests.

The results of the study provide support for all three independent variables (organization identification, affective commitment and organization satisfaction) as predictors of prosocial behavior, which was defined as charitable giving and volunteering time for this study. When evaluating all three independent variables simultaneously in a multiple regression test, the data provided similar results with significant relationships. In addition, the research indicated a stronger relationship for alumni of private institutions in exhibiting prosocial behavior compared to their public school counterparts, and how graduates who participated in co-curricular activities demonstrated higher tendencies of prosocial actions. In this final chapter, the study begins with an analysis of results, followed by implications for further research, limitations and delimitations, summary and conclusion and recommendations for practice.

Analysis of Results

As expected, the study identified several relationships leading to prosocial behavior, which for this study was defined as the act of making financial contributions or volunteering at a graduates’ alma mater. Based in social identity research (Diamond & Kashyap, 1997; Eisenberg & Mussen, 1989; Hogg, 1987; Mael & Ashforth, 1992; Midlarsky, 1971; Schervish, 1993;
Schwartz & Ben-David, 1976), both behaviors fit as measurable variables in studying the relationship between intercollegiate athletics and prosocial acts among alumni. In the individual correlations between organizational identification, affective commitment and organizational satisfaction variables, all three signaled to be statistically significant predictors of prosocial behavior. The study also examined the importance of socio-demographic factors in relationship to the independent variables along with the importance of institutional-type characteristics in the association to intercollegiate athletics and alumni prosocial behavior. The following section analyzes the findings from the study and their connection to the athletic and alumni giving literature.

**Organizational Identification.** The results indicated an association between alumni prosocial behavior and organizational identification at the NCAA Division II level, suggesting for example, that graduates connect to their alma mater by feeling a sense of pride in athletic teams, take it personal when others criticize the institution and are proud to self-identify with the institution. For this study, the organizational identification variable was constructed based on the findings of Mael (1988), and the results align with his findings where he described OID as “the perception of oneness with or belongingness to an organization where the individual defines him or herself in terms of the organization he or she is a member” (p. 104). The study establishes that intercollegiate athletics at the NCAA Division II level provides opportunities for institutions to create a sense of “belongingness,” allowing graduates to become better connected.

The findings in relationship to the organizational identification variable on alumni prosocial behavior intersect with themes from both the alumni giving and the intercollegiate athletic research. Mael and Ashforth (1992) and Mann (2007) along with several other studies (Diehl, 2007; Hanson, 2000; Harrison et al., 1995; Hunter et al., 1999; Hoyt, 2004; Lawley,
2008; Wunnava & Lauze; 2001) support the importance of organizational identification in alumni engagement. Similarly, Taylor and Martin (1995) indicated that identification through “involvement with the university” was one of the strongest variables differentiating both a donor from a non-donor and also between a high and low contributor (p. 299). The organizational identification findings also relate to the alumni studies (Clotfelter, 2001; Delaney, 2004; Harrison et al., 1995; Monks, 2003; Okunade, Wunnava & Walsh, 1994; Sun, Hoffman & Grady, 2007) that suggest the relationship between giving back and being connected to the college or university through a student group or organization.

From the intercollegiate athletic research, the literature provides conflicting findings on the importance of college sports and alumni giving behavior with a vast majority of the research citing either a positive relationship or no relationship at all. The organizational identification results of this study support a positive association with prosocial behavior similar to the findings of Coughlin and Erekson (1984); Daughtrey and Stotlar (2000); Sigelman and Bookheimer (1983); Stinson and Howard (2007); Stinson and Howard (2008); and Wunnava and Okunade (2013) which all demonstrate how supporters often want to connect to successful athletic programs and teams.

**Affective Commitment.** The findings of the study suggested a relationship between alumni prosocial behavior and affective commitment at the NCAA Division II level, indicating that graduates become emotionally attached to a college or university through intercollegiate athletics. The results revealed that factors such as feeling like part of the family and being part of the team are enhanced through a graduates’ connection with college sports. The affective commitment variable was established through Meyer and Allen’s (1984) model of commitment, which divided commitment into three different types: affective, normative and continuance. The
affective type was chosen for use based on how those with a “strong affective commitment remain [engaged] because they want to” (Meyer, Allen & Gellatly, 1990, p. 3). Porter, Mowday and Steers (1982) describe how affective commitment is a passionate attachment, which is consistent with the alumni literature regarding the importance of emotional connections. Brittingham and Pezzullo (1990) contend that the “best predictors of alumni giving are an emotional attachment to the school” (p. 40). The study suggests that intercollegiate athletics at the NCAA Division II level provides opportunities for institutions to create emotional connections with alumni, helping to strengthen the relationship between alumni and their alma mater.

The results in association to the affective commitment variable on alumni prosocial behavior add to both the athletic and the alumni literature on the topic. Several alumni studies (Clotfelter, 2001; Delaney, 2004; Harrison et al., 1995; Monks, 2003; Okunade, Wunnava & Walsh, 1994; Sun, Hoffman & Grady, 2007) emphasize the importance of social interaction in the creation of strong emotional bonds. The studies cite how donors give back as a result of their emotional connection developed through student groups, such as a fraternity, athletic team, area of study, campus club or residence hall. Mann (2007) described how alumni gave back out of “strong feelings of allegiance and empathy toward the college,” (p. 38) and this study’s findings display a relationship where alumni behavior is enriched through a connection to intercollegiate athletics at the NCAA Division II level. In the athletic focused studies, the results relate to research (Mahony et al., 2003; Stinson & Howard, 2010b; Tsiotsou, 2007) that shows how intercollegiate success can create emotional connections, and one example by Holmes (2009) suggested that graduates “appear to increase their giving as they experience a ‘warm glow’ from athletic successes” (p. 27).
Organizational Satisfaction. From the study, the results revealed a relationship between alumni prosocial behavior and organizational satisfaction at the NCAA Division II level. The finding demonstrated how college athletics provides opportunities for alumni to connect to the university through satisfying experiences such as being actively involved with sports programs, attending athletic events and becoming engaged with sports teams. The organizational satisfaction variable was adapted from the Brayfield and Rothe (1951) model and examined organizational satisfaction in relationship to a graduates’ connection with his or her alma mater. Harrison et al. (1995) suggested that educational “performance and satisfaction” are directly linked, leading to alumni donative behavior (p. 213). The results indicated that intercollegiate athletics at the NCAA Division II level provides an avenue to create a sense of satisfaction with graduates, which is important in relationship to prosocial behavior (Baade & Sundberg, 1996; Clotfelter, 2001; Harrison et al., 1995; Monks, 2003).

The findings in relationship to the organizational satisfaction variable on alumni prosocial behavior connect to themes from both the alumni giving and the intercollegiate athletic research. A number of alumni studies (Baade & Sundberg, 1996; Clotfelter, 2001; Harrison et al., 1995; Monks, 2003) indicate an important relationship between charitable giving and satisfaction. Monks (2003) described alumni satisfaction as “the single biggest determinant of the generosity of alumni donations” (p. 129). As discussed, there are conflicting findings on the importance of athletics in the literature, however; several studies cite how satisfaction derived from athletics relates to alumni prosocial behavior. More specifically, a number of studies (Baade & Sundberg, 1996; Daughtrey & Stotlar, 2000; Grimes & Chressanthis, 1994; McCormick & Tinsley 1990; Rhoads & Gerking 2000; Stinson & Howard, 2007; Stinson & Howard, 2008; Tucker, 2004; Wunnava & Okunade, 2013) show a positive relationship between
success in college sports and how the satisfaction from that achievement translates into alumni giving. Baade and Sundberg (1996) indicated that “colleges and universities are rewarded by their alumni for sport programs that are extremely successful and that athletic success has an immediate impact on alumni generosity” (p. 802).

**Socio-demographic Factors.** In addition to the findings from the three independent variables in the study, the research also explored the relationship of alumni prosocial behavior and intercollegiate athletics based on a number of socio-demographic factors. Based on previous studies in both the alumni and intercollegiate athletic literature, the study examined eight possible moderators in the relationship to organizational identification, affective commitment and organizational satisfaction with prosocial behavior. The following factors were examined: sex, age at graduation, whether student was full-time or part-time, whether the student lived on or near campus, student involvement, residential or off-campus living, whether a student worked, NCAA student-athlete participation and whether a student received financial aid. Two significant findings were observed, relating to the importance of being involved as a student and NCAA student-athlete participation. Age at graduation and living on campus also displayed significance when measured with the affective commitment and organizational satisfaction variables, respectively. The student involvement and NCAA student-athlete participation moderators relate to student engagement and align with research in the alumni giving literature, which cites the importance of student engagement. Monks (2003) provided support for the importance of involvement, stating “active participation in student government, intercollegiate athletics, performing arts/music, fraternities and sororities, religious groups, or residence life all correlated with greater levels of alumni giving” (p. 128). The results of this study add to the literature on
the importance of student involvement being an important predictor of alumni engagement and prosocial behavior, establishing its importance among NCAA Division II schools.

The alumni giving research is rich with literature describing the importance of student involvement and prosocial behavior. Mann (2007) referred to how a donor’s affinity to a certain group at the college leads to donative behavior, while several studies (Clotfelter, 2001; Delaney, 2004; Harrison et al., 1995; Monks, 2003; Okunade, Wunnava & Walsh, 1994; Sun, Hoffman & Grady, 2007) suggested the importance of involvement, citing how donors give back as a result of their connection to a group when they were students. A study by Okunade et al. (1994) added that “alumni members of non-Greek clubs and honors club alumni who continued their education at the same university contribute significantly” (p. 81).

**Institutional-type Factors.** The study also examined whether a difference existed based on institutional-type, specifically targeting the prosocial behavior of graduates from public and private institutions. The findings revealed a difference showing that private school alumni displayed higher tendencies of prosocial behavior than public school graduates. The results fit with the findings from Baade and Sundberg (1996) indicating that “gifts per alum to public universities are much lower” (p. 80). The athletic literature at the NCAA Division I level on this theme is somewhat mixed as several studies (Budig, 1976; Daughtrey & Stotlar, 2000; Sigelman and Brookheimer, 1983; Sigelman, & Carter, 1979; Stinson & Howard, 2007; Stinson & Howard, 2008; Tucker, 2004) cite that institutional-type does not impact the relationship between athletic success and charitable giving, while other research pieces (Baade & Sundberg, 1996; Brooker & Klastorin, 1981; Shulman & Bowen, 2001) argue that graduates of private schools tend to reward their institutions more than alumni of public institutions. The results of
this study add to the research, indicating how private school alumni generally display a higher
tendency of prosocial behavior compared to public school graduates.

The institutional-type variable (public versus private) overlaps with the economic
capacity theme in the alumni giving literature. Baade and Sundberg (1996) suggested that
students at private schools generally are wealthier and that graduates of public schools may
consider their tax payments to state institutions adequate support for public colleges and
universities. The institutional-type theme also relates to Mann’s (2007) economic concept,
referring to how donor income and benefits lead to philanthropic decisions. Clotfelter (2003)
found a relationship between economic capacity and alumni giving, suggesting that “the level of
alumni donations was strongly associated with income” (p. 119). Wunnava and Lauze (2001),
Belfield and Beney (2000), Monks (2003), Weerts and Ronca (2009) all added to the literature,
finding a direct correlation between financial status, income and charitable giving.

**Football versus Non-football.** In addition, the study investigated whether a difference
existed based on whether an institution offered football among its intercollegiate athletic
program. The study found there was not a significant difference leading to prosocial behavior
among alumni based on whether an institution offered football. Most research at the NCAA
Division I level (Baade & Sundberg, 1996; Goff, 2000; Humphrey & Mondello, 2007; Rhoads &
Gerking 2000; Stinson & Howard, 2007) indicates that alumni giving is higher at schools that
compete in football as an intercollegiate sport compared to schools that do not play football.
Baade and Sundberg (1996) found that “a football appearance is significantly and positively
correlated with the average gift per alum” (p. 799), while Sigelman and Bookheimer (1983)
indicated that “there is in fact a fairly strong linkage, which comes in the form of a correlation
between success in football and contributions made directly to intercollegiate athletic programs”
(p. 357). Stinson and Howard (2007) added that “football tradition and the winning percentage of the football team both have significant positive influence on giving” (p. 258). The current study provided conflicting results for Division II schools revealing there was not a statistically significant difference in prosocial behavior between schools that played football as an intercollegiate sport. The finding is an important caveat for the NCAA Division II administrator as many schools at this level wrestle with the idea of adding football to their athletic programming. Since football is the most expensive sport to financially sponsor, this finding is a significant factor to consider when weighing whether a Division II school should add football.

**Implications for Future Research**

As mentioned throughout the study, this research focused on institutions participating at the NCAA Division II level because current literature tends to focus only on schools at the NCAA Division I and III levels (Martinez et al., 2010). With the lack of research on schools at this level, the study provides a rare look at this NCAA classification. The research adds to the current knowledge and lays the foundation for future examinations of NCAA Division II colleges and universities. The following section provides implications for future research.

**Research Implication 1:** Based on the findings that demonstrate NCAA Division II athletics impact prosocial behavior among alumni, additional research should be performed to corroborate the findings from this study. Few studies exist in the literature examining the unique characteristics of NCAA Division II schools, and further investigation comparing the results from NCAA Division I, Division II and Division III institutions would provide inferences on the differences between the three levels. Clotfelter (2010) suggests “to read most scholarly research about American higher education, one would conclude that commercial college sports did not exist at all,” (p. 12-13) and this study addresses the lack of intercollegiate athletic research.
Research Implication 2: Since the graduates of private schools in the study displayed a higher tendency of prosocial behavior, research investigating the difference between graduates of the two institutional-types would add to the literature in this area. As presented, the research is mixed on the topic at the NCAA Division I level, but a further examination is warranted to investigate why a difference exists at the NCAA Division II level. Baade and Sundberg (1996) submit that students at private schools generally come from families with higher incomes and that graduates of public schools may think their state and federal taxes are adequate support for public colleges and universities, however; a more in depth examination of the difference is necessary.

Research Implication 3: The current study provided an examination of NCAA Division II schools, which are described in the literature as being more non-traditional in regards to institutional type compared to NCAA Division I and Division III schools (Fulks, 2014; Martinez et al., 2010). Nonetheless in the current study, 96 percent of the respondents identified as full-time students and 87 percent were 25 or under when graduating from their respective alma mater. Since NCAA Division II schools have a higher percentage of part-time and non-traditional students, a concentrated effort to examine this student type would be advantageous and add to the literature. Drezner (2011) suggests there is a lack of non-traditional studies in the alumni-giving literature, contending that most focus on “wealthy white men” (p. 87). Naturally, part-time and non-traditional students have less opportunity to become engaged with the institution, and with the importance of engagement well-documented in the relationship of prosocial behavior (Diehl, 2007; Hanson, 2000; Harrison et al., 1995; Hoyt, 2004; Hunter et al., 1999; Lawley, 2008; Wunnava & Lauze; 2001), research specifically focusing on the impact of intercollegiate athletics on part-time or non-traditional students would be beneficial to the topic.
**Research Implication 4:** Another suggestion for further research relates to identifying participating institutions at the NCAA Division II level based on geographic location, urban or rural area, age of institution and dedicated advancement resources. In addition to the assumption that some parts of the country may not appreciate intercollegiate athletics with the same passion as others, differences also lie in whether an institution is located in either an urban or rural area. Research investigating the impact of intercollegiate athletics in urban areas would be beneficial, considering the challenges that Division II schools often experience by being the small fish in a large pool of athletic choices in metropolitan cities. For example, Metro-Atlanta has more than five professional sports teams and at least three NCAA Division I athletic programs, making the smaller Division II programs starved for attention in such a large market.

Further research examining how areas and geographic regions may impact behavior of alumni would complement the current study, and future studies could achieve this by defining participant institutions through Integrated Postsecondary Education Data System (IPEDS) data. All of the participating schools were NCAA Division II members, but a better categorization based on age of institutions and resources available would add to the literature based on the importance of established traditions expressed by Mahony et al. (2003). Classifying institutions based upon resources dedicated to advancement efforts would also connect with Pearson’s (1999) contention about an institution’s advancement resources and how “giving is influenced … [by] the resources involved in fundraising” (p. 8).

**Research Implication 5:** Although the socio-demographic factors accounted for a very small amount of prosocial behavior in stepwise regression in research question 5, the impact of student involvement on the outcome still indicates an important area for university administrators to recognize. The findings from this study confirm the actions of many NCAA Division II
schools in their quest to become more traditional. Several public NCAA Division II institutions across the Southeast have been transformed in recent years with new student activities buildings and residential housing options in hopes of creating more traditional campuses. Based on the findings from this research and other studies (Clotfelter, 2001; Delaney, 2004; Harrison et al., 1995; Monks, 2003; Okunade et al., 1994; Sun et al., 2007), the move to encourage more student involvement and residential living is advantageous because it leads to stronger connections with students and graduates. As these NCAA Division II public regional universities become more traditional with more on-campus housing and student activity centers, more research investigating the impact of this transition is merited.

**Limitations and Delimitations**

The study investigating the relationship of college sports with prosocial behavior consists of delimitations and limitations. The first overarching boundary on the study relates to the population sample consisting of only NCAA Division II institutions. This delimitation is established from findings by Martinez et al. (2010) regarding the lack of intercollegiate athletic studies focusing on non-NCAA Division I schools and by Clotfelter (2003) and Drezner (2011) on the absence of literature pertaining to non-traditional students and alumni giving. Since only NCAA Division II schools are included, the time-frame for examining alumni participants is restricted due to the fact that the Division II classification was not created until the mid-1970s (NCAA, 2014b). Another sample limitation lies in the selection of institutions, as all the schools were chosen from the southern United States based on the ease, familiarity, and availability of obtaining data and may not be generalizable to other parts of the country. Institutions in different regions may provide varying levels of support and resources, and not all regions of the country share the same passion for collegiate sports.
In addition, the study is limited due to the techniques required to pull the sample, as the primary researcher had to rely on what Bhattacharyya (2006) refers to as judgment sampling, where “the judgment or opinion of some experts forms the basis of the sampling method” (p. 111). Because higher education advancement offices prohibit the access of alumni contact information to outside constituencies, the primary researcher had to rely on the alumni experts within each institution in compiling the contact lists and distributing the survey to their selected alumni population.

Based on previous research regarding the importance of institutional-type, the study took careful consideration in the selection of four specific institutional-types: public versus private (Baade & Sundberg, 1996; Brooker & Klastorin, 1981; Shulman & Bowen, 2001) and football versus non-football (Fulks, 2014; Martinez et al., 2010). However, with the wide range of institutional-based attributes that are difficult to measure, limitations may also exist in gauging how such characteristics such as heritage, prestige, tradition, location and age of institution impact an alumni base.

Furthermore, the research is limited based upon the type of schools that agreed to participate in the research. The study requested participation from all of the approximate 70 schools in the NCAA Division II South and Southeast Regions and received participation assurances from eight total schools, four public schools and four private schools. One noticeable limitation from this pool of eight schools was that only two of the schools sponsored football (one public and one private) out of the 28 schools that have football in the two regions, which led to a relatively small proportion of respondents in the survey results. Similarly, the study sought, but did not receive, participation agreements from any Historically Black Colleges which encompass 13 of the total schools in the two regions. The research also did not include race as a
variable in the instrument, therefore; the study was unable to draw any relationships based on that demographic factor.

Within the sampled population, another consideration to understand is that a higher number of private school alumni agreed to participate compared to public school alumni. The higher frequency of private school alumni participation also came from a smaller pool of possible contacts. This could be explained by private school alumni being more engaged than their public school counterparts, which has been presented in the literature, and it could also mean that private schools do a better job of maintaining their email contact lists, providing greater response rates for the survey. Although the study did take careful consideration to guard against Social Desirability Response (SDR) by ensuring anonymity and revising any sensitive questions, the instrument did not include a SDR scale. The inclusion of a scale may have been helpful in identifying if any results were skewed by the nature of respondents. The sample also consisted of only 111 respondents who attended schools that offered football, signifying that almost 90% of the survey participants attended schools that did participate in football.

In the literature, Weerts and Ronca (2008) explained how predicting alumni voluntary behavior is an incredibly complex task, while Mahony et al. (2003) and Gladden et al. (2005) cited how the uniqueness of individual postsecondary institutions (2005) play a role in the support of college intercollegiate athletic programs. Taking these distinctive institutional characteristics in account, consideration must be afforded in generalizing the findings from the study on the impact of intercollegiate athletics on prosocial behavior. A final limitation of the study relates to the alumni contact information at the respective institutions. The maintenance of alumni databases is an extremely difficult and laborious process, and some institutions have dedicated more support and resources to upkeep graduate information. The sample population
consisted of over 76,000 alumni, and the eight schools reported approximately 33,000 email contacts for the sample. However, from the primary researcher’s past experience, higher education databases that contain alumni contact information are often a work in progress with approximately 50 percent of alumni not having an email contact listed. Of the remaining 50 percent of alumni in a database, half of those addressees are often not valid.

**Summary and Conclusion**

As described by philanthropic scholar Hall, “no single source is more responsible for the emergence of the modern university in America than giving by individuals and foundations” (Hall, 1992, p. 403). Charitable giving to college and universities helped establish American post-secondary education as one the world’s best systems (Weerts & Ronca, 2012), and a significant component in these philanthropic efforts are gifts by alumni to institutions (Council on Aid, 2013). Over the last several years, the importance for institutions to understand why graduates contribute to their alma mater has increased based on uncertain financial support from state and federal governments, unstable endowments, and the increasing amount of debt that students are being forced to endure (AASCU, 2013). With the established need to better recognize why graduates make charitable donations to their school, this study indicated the impact of intercollegiate athletics on that behavior, specifically looking at NCAA Division II schools since these institutions operate under the radar compared to the more traditional Division I programs.

The study adds to the current knowledge on alumni giving and the impact of intercollegiate athletics, laying the foundation for a specific set of institutions to be examined in the future. As Drezner (2011) contends “a better understanding of how to engage non-traditional donors is needed” (p. 86), and this study established preliminary research on a group of schools
that have been under-represented in higher education studies. Based in social identity theory, which suggests that people want to categorize themselves into various social groups and organizations (Ashforth & Mael, 1989), the research indicated that intercollegiate athletics can play a role in creating alumni connections through such factors as organizational identification, affective commitment and organizational satisfaction. These connections help encourage prosocial actions such as charitable giving, a vitally important function in today’s higher education setting. Alumni have always been significant players in providing financial support to colleges and universities and accounted for 25% ($9 billion) of all voluntary financial support to U.S. institutions in 2013 (Council for Aid, 2014). These findings provide advancement practitioners confidence that intercollegiate athletics can be used as a tool to cultivate these important relationships.

Intercollegiate athletics provides opportunities for the campus community to identify with the university, allowing alumni to have a “sense of belongingness,” enabling them to develop life-long relationships with their college or university. The study demonstrated how college sports can create emotional and passionate attachments to the institution for supporters along with creating a sense of pride and satisfaction between alumni and their alma mater. Along with its important role of initially engaging alumni to the institution, studies also show how these connections can create what is termed a “spillover affect” (Grimes & Chressanthis, 1994), where alumni who may be initially connected to the institution through athletics often increase their voluntary support to other parts of the college or university. Stinson and Howard (2010b) suggest these relationships cultivated through intercollegiate athletics are “an important antecedent to the development of some major donors” (p. 320).
Despite the fact that NCAA Division II intercollegiate athletic programs lack the attention of Division I sports and are not the revenue generators of top flight D-I programs, the study establishes that Division II sports can serve as a valuable asset for their respective institutions, creating a campus culture and developing enduring relationships with students and alumni. The study findings align similarly with a suggestion by Stinson and Howard (2010b) describing how intercollegiate sport “acts as a socialization agent and ‘window’ to the institution for both alumni and non-alumni” (p. 319). The challenge now is for university administrators and athletics officials at the NCAA Division II level to take full advantage of their investment in athletics, partnering with other college and university groups to better incorporate the beneficial attributes of college athletics in the campus culture.

Athletic officials should look no further than Division II institution BYU-Hawaii for an example of the pressure on whether to continue the investment in intercollegiate athletics. The school recently announced that it will be eliminating athletics in a cost-saving move for the institution, citing "the money being spent on athletics programs will be used to provide educational opportunities for the increasing number of students from around the world who can be served by the university” (Cherry, 2014). Success on the playing field had little impact on the school’s decision to disband the program as the school was the national runner-up in men’s basketball in 2011 and has captured 13 national championships since joining NCAA Division II.

**Recommendations for Practice**

For athletic officials and institution administrators at NCAA Division II schools, the results of this study provide important ammunition in justifying the need for college sports at this level. As mentioned, NCAA Division II athletic programs lose money annually at an alarming rate as schools with football programs cost $4.8 million and schools without football cost $3.8
million (Fulks, 2014). Because NCAA Division II programs are removed from the billion-dollar television contracts and the benefits of constant media coverage compared to their NCAA Division I counterparts, one understands the consternation from university officials on whether intercollegiate athletics is a worthy investment, especially during austere times. However, the results from this study demonstrate that institutions do benefit from intercollegiate athletics, creating what Clotfelter (2011) described as a common identity and “a deep sense of community and social solidarity,” (p. 9) allowing students and alumni to become actively engaged with the institution. As indicated from the study, this connection may be achieved through the relationship of organizational identification, affective commitment and organizational satisfaction with graduates.

With an association between intercollegiate athletics and prosocial behavior among alumni at the NCAA Division II level established, the challenge for colleges and universities becomes how to take advantage of this relationship. Since university advancement officials have a vested interest in staying connected with alumni, an initial step is creating a strong working partnership between athletic and advancement departments. Pearson (1999) indicated the importance of an institution’s advancement efforts in “the quality of alumni relations and communications … not to mention the resources involved in fundraising” (p. 8). Both athletic and advancement administrators should confer regularly, and in their strategic plans, consider the relationship between intercollegiate athletics and prosocial behavior among alumni when developing fundraising strategies and planning events. Additionally, university officials at the executive level should examine both the personnel and financial resources available to advancement offices to ensure these practitioners have the resources to take advantage of this positive relationship between alumni prosocial behavior and intercollegiate athletics.
Since NCAA Division II athletics operates under the radar compared to Division I sports, another recommendation relates to how Division II athletic administrators and advancement officers must pursue more creative and innovative ways to engage alumni and students through intercollegiate athletics. To better connect with alumni, an example might be offering free athletic clinics to alumni and their families, which would provide an opportunity to develop lasting relationships between graduates and the athletic department, while an example could be creating special opportunities for students and alumni at athletic events, such as being a guest coaches or exclusive opportunities to interact with coaches and players. An example may be hosting athletic contests and events in locations where large numbers of alumni reside, in essence bringing the interaction to them. Another example could be for athletic departments to systematically budget some of its financial resources for activities that would actively engage students with intercollegiate contests. All these illustrations encourage engagement with intercollegiate athletics and something the research deems imperative. Mael and Ashforth (1992) and Mann (2007) identified the significance of alumni engagement, while a number of studies acknowledged how people often connect to successful winning teams (Coughlin & Erekson, 1984; Daughtrey & Stotlar, 2000; Sigelman & Bookheimer, 1983; Stinson & Howard, 2007; Stinson & Howard, 2008; and Wunnava & Okunade, 2013).

In addition to becoming more creative in engaging alumni and students, NCAA Division II athletic and advancement officials must also proactively explain the importance of this relationship to the campus community. At the NCAA Division II level, college administrators and faculty should embrace athletics as a way to create a sense of community. Sometimes the negative perception of college sports, and the enormous coaching salaries at the NCAA Division I level skew the good work of intercollegiate athletics at the NCAA Division II level. Athletic
administrators need to articulate the benefits of college sport at this level. Athletic directors often talk about the diversity that college athletes bring to a campus along with the fact that NCAA Division II athletes usually enter with higher academic credentials and graduate at a higher level (NCAA, 2014c), however; they should do a better job of making a case that athletics provides a way to create a sense of community and a life-long connection with alumni, as this research suggests.

Advancement and athletic officials must educate the campus community about Division II athletics; in essence tell the story about how college sports at this level are different. In discussing sense-making, Birnbaum (2010) references how faculty and staff can “be fooled by predictable biases in their thinking processes because making judgments in organizational settings is so complex” (p. 70). Division II athletics fits as an example of this type of heuristic approach, often being wrongly associated with some of the transgressions of Division I athletics. Kahneman, Slovic and Tversky (1982) describe this hands-on learning approach as “representativeness,” where people make biased judgments based on resemblance.

Athletic and advancement administrators would be smart to emphasize the differences between the Division I and Division II models. The mission of Division II athletics centers on “striking a balance among academic excellence, athletics competition and social growth (NCAA, 2015c). In addition, it “epitomizes the collegiate model of athletics [affording] student-athletes the opportunity to explore their varied academic and social interests, to grow as productive citizens and to contribute to their communities” (Bense, 2015). By explaining these differences, athletic and advancement officials could dispel some of the negative perceptions about college sports, suggested by Sperber (1990) where some alumni are “embarrassed by their schools’ becoming jock factories” (p. 72). Also, it would help to explain how Division II operates within
a partial scholarship model with few student-athletes receiving full scholarships (NCAA, 2014d), meaning most Division II programs are far from the “jock factories” described by Sperber (1990). By educating constituents on the benefits of intercollegiate athletics, such as the association between prosocial behavior and college sports among alumni, and confronting misconceptions about Division II sports, the institution will more likely unite and rally around intercollegiate athletics.

Another recommendation relates to the findings that alumni of football schools did not exhibit higher percentages of prosocial behavior compared to graduates of non-football institutions. Some research (Baade & Sundberg, 1996; Goff, 2000; Humphrey & Mondello, 2007; Rhoads & Gerking 2000; Stinson & Howard, 2007) at the NCAA Division I level indicated that football success is an important factor in alumni giving; however, the current study did not present a statistically significant finding between the two groups. Based on that result, and the fact that Division II athletic programs with football cost $1 million more than programs without football (Fulks, 2014), college administrators should seriously question whether adding football or even continuing to support a college football program at the NCAA Division II level is a worthy investment. From the findings, Division II programs with football have no greater impact in relationship to developing prosocial behavior among their alumni than those not sponsoring football at their institutions. Division II institutions considering the addition of football to their intercollegiate athletic program should seriously compare the complete costs of football against the benefits gained.

Administrators should not let their judgment be clouded by the success of college football at the upper NCAA Division I level, as Division II programs are not the revenue generators and are devoid of the multi-million dollar television contracts and constant media coverage of
Division I (Fulks, 2014). In addition, attendance at Division II games ranks much lower, averaging only about 3,300 per game compared to over 44,000 at the Division I level. (NCAA, 2015d). Fulks (2014) suggests there is no comparison in terms of resources available between the classifications, as Division II schools are, “without the benefit of sizable ticket sales, large alumni bases for donations and the luxury of sharing in men’s post-season basketball distributions and conference television revenues” (p. 11). Division II college presidents and athletic directors should look no further to Georgia State University’s recent addition of football at the Division I level to examine the financial burden on students, the athletic department, and the institution when adding football. At Georgia State, the average attendance ranks among the 10 worst in Division I, and students were required to cover a large portion of the cost of the football program through almost $90 million in student athletic fees during a five-year span (Wolverton, Hallman, Shifflett & Kambhampati, 2015).

A final hurdle in taking advantage of the positive relationship between intercollegiate athletics and prosocial behavior is for programs at this level to accept the mission of NCAA Division II athletics and create its own niche, instead of trying to emulate the glory and prestige of Division I programs. In their work the “The Iron Cage Revisited,” organizational theorists Paul DiMaggio and Walter Powell (1983) describe the function as “mimetic isomorphism,” where institutions mimic one another not for the need of efficiency or effectiveness but “to be acknowledged as legitimate and reputable” (p. 153). Mimetic isomorphism is not a smart practice for NCAA Division II schools trying to be like their Division I counterparts, since what is successful at one institution is not always going to be successful at another.

NCAA Division II athletic and advancement officials do not have the luxury of overflowing athletic revenues, national media contracts, or record-breaking attendance at games
to make connections with their alumni, but this study indicates there still is a positive relationship between intercollegiate athletics and prosocial behavior at the NCAA Division II level. Clotfelter (2010) contends that the “strongest argument in favor of spectator sports on a campus is its power to enfold students within a community that shares a common identity by building what social scientist call ‘social capital’” (p. 154). The duty for athletic and advancement professionals at the NCAA Division II level is to create ways for engaging alumni, conveying the significance of college sports as an important part of an institution’s mission and utilizing intercollegiate athletics as a tool in keeping students and alumni connected to their alma mater.
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APPENDIX A

SAMPLE SIZES

Completed sample sizes needed for various population sizes and characteristics at a 95% percent confidence level with three margins of error.


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<th>Population Size</th>
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APPENDIX B

NCAA DIVISION II SOUTH AND SOUTHEAST REGIONS

Listing includes the state institution location, conference affiliation, classification (football or non-football), total undergraduate enrollment, total male student-athletes, total female student-athletes and number of total alumni (undergraduate).

The athletic classification data was retrieved from the Postsecondary Education Department (Equity in Athletics Data Analysis) within the Department of Education, while the total enrollment figures were retrieved from the Integrated Postsecondary Education Data System (IPEDS). The alumni data (Total Grads) was provided by the Council on Aid.

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APPENDIX C

STUDENTS PARTICIPATING IN CO-CURRICULAR ACTIVITIES

The graph below represents the percentage of students who responded that they spent at least one hour per week participating in a co-curricular activity during the academic year. Source: National Survey of Student Engagement (NSSE), 2009.
APPENDIX D

SURVEY QUESTIONS

I. Demographic questions:

1. Sex: female, male, other
3. Age at graduation: 25 or under, 26-39, 40 or over
4. As a student, you attended classes: part-time or full-time
5. In what area was your major: Liberal Arts, STEM (Science, Technology, Engineering, Mathematics), Health-related field, Business, Education, Other.
6. As a student, how much time in a 7-day week did you spend involved in co-curricular activities (campus organizations, clubs, student government, intramurals, etc.): 0 hours; 1-5 hours; 6-10 hours; more than 10 hours.
7. As a student did you ever live on or near campus: yes or no
8. As a student did you ever work: yes or no.
9. If so, was your job on-campus or off-campus.
10. If you did work as a student, was your position part-time or full-time.
11. Did you compete as an NCAA student-athlete while attending: yes or no.
12. If so, did you receive scholarship money: yes or no.
13. How much of your monthly/yearly income do you contribute to school: None, Less than 5 percent, 5-10 percent, More than 10 percent
14. Did you receive financial aid as a student: yes or no.

15. If so, what type: grant, loan, scholarship, combination of aid or other.

16. How far do you currently live from campus: 100 miles or less, 100-250 miles; 250 or more

II. Using the following 1-5 scale, please indicate the most correct response, the degree to which you agree with the statements listed below. [1 = Strongly disagree; 5 = Strongly agree]

1. I attended (name of school) athletic games as a student. (PSB)

2. I am proud to wear (name of school) athletic gear such as (name of school) t-shirts, sweat shirts, hats, etc. (OID)

3. I do not feel a strong sense of belonging to my (name of school). (R) (AC)

4. I find real enjoyment attending sporting events at (name of school). (OS)

5. As a graduate, I attend (name of school) events when I am able. (PSB)

6. When someone criticizes (name of school), it feels like a personal insult. (OID)

7. (Name of school) has a great deal of personal meaning for me. (AC)

8. When I go back to (name of school), I wouldn’t waste my time by going to a game. (R) (OS)

9. I am happy to give back financially or volunteer to (name of school). (PSB)

10. I take pride when one of (name of school) athletic teams wins a sporting contest. (OID)

11. I do feel like “part of the family” at (name of school). (AC)

12. I am enthusiastic about (name of school) Athletics. (OS)

13. I have served as a volunteer or am interested in serving as a volunteer at (name of school). (PSB)
14. I am not interested in what the community thinks about (name of school). (R) (OID)

15. I enjoy conversations in which we recall experiences that happened at (name of school).
   (AC)

16. Overall, I am satisfied with my educational experience at (name of school). (OS)

17. I recommend (name of school) to potential students when they are looking for a school to attend. (PSB)

18. When I talk about (name of school), I say ‘we’ rather than ‘they.’ (OID)

19. I do feel “emotionally attached” to (name of school). (AC)

20. I enjoy keeping up and reading about athletic wins and losses of (name school) teams.
   (OS)

Key: (OID) Organizational Identification; (AC) Affective Commitment; Organizational Satisfaction (OS); and (PSB) Prosocial Behavior.
APPENDIX E

SOCIAL DESIRABILITY SCALE

Short, Homogeneous Versions of the Marlowe-Crowne Social Desirability Scale*

1. True - I'm always willing to admit it when I make a mistake.
2. True - I always try to practice what I preach.
3. True - I never resent being asked to return a favor.
4. True - I have never been irked when people expressed ideas very different from my own.
5. True - I have never deliberately said something that hurt someone's feelings.
6. False - I like to gossip at times.
7. False - There have been occasions when I took advantage of someone.
8. False - I sometimes try to get even rather than forgive and forget.
9. False - At times I have really insisted on having things my own way.
10. False - There have been occasions when I felt like smashing things.

*Social Desirability Scale created by Strahan and Gerbasi (1972). This scale was modified from an original scale created by Marlowe and Crowne (1960).
APPENDIX F

INITIAL EMAIL TO ALUMNI DIRECTOR AND VICE PRESIDENT OF ADVANCEMENT

Good morning [Alumni Director or V.P. for Advancement],

My name is Gid Rowell, and I’m a doctorate student at the University of Alabama in the Higher Education Administration program.

I am working on my dissertation, which will examine the “Impact of Intercollegiate Athletics in Relationship to Prosocial Behavior among Alumni at NCAA Division II Institutions.”

I formerly worked at Clayton State University, serving as the Assistant Athletic Director for External Relations and the Director of Alumni Relations, so I have a research interest in alumni and athletics. I am specifically looking at alumni of NCAA Division II institutions, since there are very few studies that examine alumni and athletic relationships at this level.

I wanted to ask if you would allow me to survey a group of your alumni. My instrument is a short web-based anonymous survey with 12 demographic questions and 20 questions on the topic. The survey should take no more than 15 minutes to complete. I would be happy to share my results once the study is complete.

If it is something you would consider, I can provide more details.

Thanks in advance for your help,

Gid Rowell
gerowell@crimson.ua.edu
Site Authorization Approval

Study Title: “Impact of Intercollegiate Athletics in Relationship to Prosocial Behaviors among Alumni of NCAA Division II Institutions.”

This study is being administered by Mr. Gid Rowell, a doctorate student in the Higher Education Administration program at the University of Alabama. This research is supervised by Dr. Nathaniel J. Bray, Associate Professor in the Higher Education Department at Alabama.

What is this study about?
The purpose of this research is to study the impact that college sports has in encouraging graduates to either give back financially or volunteer to help in advisory roles or at events. The study will also look at a specific type of institution, focusing only on colleges or universities that have NCAA Division II athletic programs. This study seeks to investigate if college sport at the Division II level develops a sense of community that encourages a connection to a college or university.

Why is study important?
The study will be beneficial for college and university administrators in learning more about the relationship between colleges and universities and their athletic programs. Schools commit many resources to college athletics in hopes of creating a wholesome community for students, faculty, alumni and the general public.

Why has your college or university been asked to take part in this study?
As an institution that offers NCAA Division II sports in the Southeast, your institution fits the criteria for the study.

What other schools will be eligible for study?
This study will focus on schools that are members of the NCAA Division II South and Southeast Regions. The South Region consists of three conferences, Gulf South Conference, Southern Intercollegiate Athletic Conference and Sunshine State Conference, while the Southeast Region is comprised of the Conference Carolinas, the Peach Belt Conference and the South Atlantic
Conference. The two NCAA regions consist of almost 70 member institutions and are all located in the Southern United States.

**What is the population sample for the study?**
The population sample will be identified by working with the respective Alumni offices at the participating institutions. An alumni date range between 1990-2010 was selected to ensure that all participating schools were competing at the NCAA Division II level during this time.

**What will graduates be asked to do in this study?**
The study will employ a web-based online survey. Participants will be asked questions regarding their identification, commitment and satisfaction with their alma mater. In addition, the survey will include demographic type inquiry such as questions pertaining to a graduate's major, student involvement, whether the graduate lived on campus, attended as a full-time student or worked while going school, etc.

**How much time will a graduate spend taking the survey?**
The questions should take no more than 10-15 minutes to complete.

**Will there be any cost or will anyone be compensated for participating?**
The only cost of participating is time and no one will be compensated for the study.

**What are the risks (problems or dangers) from being this study?**
There are no risks with this study, as the survey asks only demographic questions and general questions about the subject's connection to his or her alma mater. Participation is completely voluntary and anonymous and participants may skip any questions they do not wish to answer.

**How will privacy and confidentiality be protected?**
The subjects will learn of the study through an email sent by the respective Alumni office provided by the principal investigator. The email will provide background about the study, introduce Gid Rowell as the principal investigator and include the link to the informed consent form and survey questions. Each school will retain custody of its alumni email list throughout the study.

Before answering the survey questions, each participant will be presented informed consent documentation and be required to agree before proceeding with the survey. If a participant refuses the informed consent requirement, he or she will be exited from the survey. Participation in the study is completely voluntary and anonymous. Neither the consent form nor any of the questions require a name or any type of personal identification. In addition, the survey will not capture IP addresses of participants, so there will be no way to link any of the participants to an individual survey. The results of the survey will be reported in summarized data.

**Who do I call if I have questions or problems?**
If you have questions about this study, please call Gid Rowell at 770-289-8248.
Site Authorization Approval Form

Study Title: “Impact of Intercollegiate Athletics in Relationship to Prosocial Behavior among Alumni of NCAA Division II Institutions.”

This study is being administered by Mr. Gid Rowell, a doctorate student in the Higher Education Administration program at the University of Alabama. This research is supervised by Dr. Nathaniel J. Bray, Associate Professor in the Higher Education Department at Alabama.

What is this study about?
The purpose of this research is to study the impact that college sports has in encouraging graduates to either give back financially or volunteer to help in advisory roles or at events. The study will also look at a specific type of institution, focusing only on colleges or universities that have NCAA Division II athletic programs. This study seeks to investigate if college sport at the Division II level develops a sense of community that encourages a connection to a college or university.

Participants will be asked questions regarding their identification, commitment and satisfaction with their alma mater. In addition, the survey will include demographic type inquiry such as questions pertaining to a graduate's major, student involvement, whether the graduate lived on campus, attended as a full-time student or worked while going school, etc.

Name of Participating College/University

Signature of College/University Representative
APPENDIX H

INITIAL EMAIL INVITING ALUMNI PARTICIPANTS TO STUDY.

Hello [graduate first name],

Hope all is well and you are having an awesome summer! The correspondence below is an invitation to participate in an online alumni survey for which the [school’s name] Alumni office has agreed to participate.

The study is being conducted by Mr. Gid Rowell, a doctorate student from the University of Alabama, and the study is entitled, The Impact of Intercollegiate Athletics in Relationship to Prosocial Behavior among Alumni at NCAA Division II Institutions. He wishes to find out whether college sport has an impact on the connection between a graduate and his or her alma mater.

We hope the information he gathers will be helpful in our fundraising efforts and help us learn more about [school’s name] relationship with its alumni.

The study should take no more than 10 minutes to complete. There are no risks with this study, as the survey questions only ask demographic questions and general questions about your connection to [school’s name]. Participation is completely voluntary and anonymous and you may skip any questions you do not wish to answer. Before answering the questions, you will be asked to provide your consent to take part in the survey.

As mentioned, the survey is completely anonymous, and the data from the web survey is secure and password protected with only the principal investigator having access to the information. [school’s name] will retain custody of your email address throughout the study and will not be providing any personal information to anyone connected to this study.

Click here to read the informed consent and begin the survey.

Thanks in advance for your participation.

Go [school’s mascot name]!
APPENDIX I

FOLLOW-UP EMAIL INVITING ALUMNI PARTICIPANTS TO STUDY

Good morning/Good afternoon:

Thanks to all for completing the recent alumni survey that I sent to you, and I remind those who haven’t, there is still time to participate. Click here if you would like to take the survey.

The survey is part of a study being conducted by Gid Rowell, a doctorate student from the University of Alabama, and he wishes to find out whether college sport has an impact on the connection between a graduate and his or her alma mater. We hope the information he gathers will be helpful in our fundraising efforts and help us learn more about our relationship with you.

The survey is completely anonymous, and the data from the online survey is secure and password protected. Rest assured that [Name of School] will retain custody of your email address throughout the study and will not be providing any personal information to anyone connected to this study.

Thanks for your support.

Go [Mascot name]!
APPENDIX J

CONTACT INFORMATION REPORTED BY PARTICIPATING INSTITUTIONS

Private 1 - w/o football

1. Total graduates between 1990-2010: 7,570
2. Total number of graduates between 1990-2010 with emails: 5,098

Public 1 – w/o football)

1. Total graduates you have between 1990-2010: 12,640
2. Total number of graduates between 1990-2010 with emails: 4,347

Private 2 - w/o football

1. Total graduates between 1990-2010: 6,838
2. Total number of graduates between 1990-2010 with emails: 3,746

Public 2 - w/o football

1. Total graduates between 1990-2010: 10,094
2. Total number of graduates between 1990-2010 with email addresses: 2,821

Public 3 - Public w/o football

1. Total graduates between 1990-2010: 16,625
2. Total number of graduates between 1990-2010 with emails: 7,979

Private 3 - w/o football

1. Total graduates between 1990-2010: 4,501
2. Total number of graduates between 1990-2010 with emails: 3,283

Public 4 - w/ football

1. Total graduates between 1990-2010: 12,022
2. Total number of graduates between 1990-2010 with emails: 4,051

Private 4 - w/ football

1. Total graduates between 1990-2010: 5,975
2. Total number of graduates between 1990-2010 with emails: 2,272
APPENDIX K

IRB DOCUMENTATION

June 22, 2015

Gid Rowell
ELPIS
College of Education
The University of Alabama
Box 870502

Re: IRB # EX-15-CM-078 “Impact of Intercollegiate Athletics in Developing Prosocial Behaviors among Alumni of NCAA Division II Institutions”

Dear Mr. Rowell:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your protocol has been given exempt approval according to 45 CFR part 46.101(b)(2) as outlined below:

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:

(i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects’ responses outside the research would reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects’ financial standing, employability, or reputation.

Your application will expire on June 21, 2016. If your research will continue beyond this date, complete the relevant portions of Continuing Review and Closure Form. If you wish to modify the application, complete the Modification of an Approved Protocol Form. When the study closes, complete the appropriate portions of FORM: Continuing Review and Closure.

Should you need to submit any further correspondence regarding this proposal, please include the assigned IRB application number.

Good luck with your research.

Sincerely,

[Signature]

Carpehtato T. Myles, MSM, CIP
Director & Research Compliance Officer
Office for Research Compliance
August 4, 2015

Gid Rowell
ELPTS
College of Education
The University of Alabama
Box 870302

Re: IRB # EX-15-CM-078 (Revision) “Impact of Intercollegiate Athletics in Developing Prosocial Behaviors among Alumni of NCAA Division II Institutions”

Dear Mr. Rowell:

The University of Alabama Institutional Review Board has reviewed the revision to your previously approved exempt protocol. The board has determined that the change does not affect the exempt status of your protocol.

Please remember that your approval period expires one year from the date of your original approval, June 22, 2015, not the date of this revision approval.

Should you need to submit any further correspondence regarding this proposal, please include the assigned IRB application number. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants.

Good luck with your research.

Sincerely,

Stuart Usdan, PhD.
Chair, Non-Medical Institutional Review Board
The University of Alabama
APPENDIX L

Q – Q PLOTS FOR INDEPENDENT AND DEPENDENT VARIABLES

Q – Q plot for the variables organizational identification, affective commitment, organizational satisfaction and prosocial behavior, respectively.

Normal Q – Q plot for distribution of Organizational Identification
Normal $Q-Q$ plot for distribution of Affective Commitment identification
Normal Q – Q plot for distribution of Organizational Satisfaction
Normal Q–Q plot for distribution of Prosocial behavior
APPENDIX M

PSB & OID PEARSON CORRELATION SCATTERPLOT

Scatterplot for Pearson Correlation representing the relationship between Prosocial Behavior (PSB) and Organizational Identification (OID).
APPENDIX N

PSB & AC PEARSON CORRELATION SCATTERPLOT

Scatterplot for Pearson Correlation representing the relationship between Prosocial Behavior (PSB) and Affective Commitment (AC).
APPENDIX O

PSB & OS PEARSON CORRELATION SCATTERPLOT

Scatterplot for Pearson Correlation representing the relationship between Prosocial Behavior (PSB) and Organizational Satisfaction (OS).