Factors for Success in NCAA Division III Athletics

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NCAA Division III athletics are often viewed as one of the few remaining amateur sport endeavors (Simon, 2010). Although not immune from criticism, these institutions are primarily touted as an integrated educational and athletic experience for student-athletes and campus communities (Brand, 2006). However, in recent years, scholars (e.g., Sparvero & Warner, 2013) have begun to question whether the foundational purpose and Division III philosophy has given way to a more commercialized, financially driven model on display in big-time Division I athletics. Noting this, the primary purpose of this study is to use institutional theory as an explanatory for the effect that institutional factors (e.g., student population, academic prestige) and athletic factors (e.g., expenditures on sport) have on athletic success at NCAA Division III institutions. In order to accomplish this task, the NACDA Learfield Directors’ Cup standings were implemented as a measure of broad-based contemporary athletic success, and the total number of championships won was used as a measure of historical success. Ultimately, the findings of this study are intended to stimulate further discussion surrounding the purpose of Division III athletics, and whether the current trends allow institutions to maintain the romantic view of sport that the division attempts to uphold.

Keywords: Division III, Athletic Success, Institutional Theory
Against a backdrop of increased negative media coverage and pressures to win at the National Collegiate Athletic Association (NCAA) Division I level, the rhetoric surrounding the mission of Division III athletics and its focus on maintaining and supporting amateurism has similarly swollen over the previous decade. Williams, Colles, and Allen (2010) suggested, “as the scrutiny of intercollegiate athletics continues to expand, it is important to recognize the Division III collegiate experience” (p. 212). Within this point, Emerson, Brooks, and McKenzie (2009) relayed that Division III athletics supports the co-existence of education and athletics, while Cooper and Weight (2012) noted, “Division III institutions are generally regarded as bastions of holistic education largely sheltered from the commercial enticements that encroach upon other NCAA Divisions” (p. 340). These examples are representative of a growing trend whereby sport scholars advocate that an increased focus on the Division III athletics philosophy could rejuvenate the educationally integrated amateur athletics that the NCAA wishes to support (e.g., Brand, 2006; Simon, 2010), as Division III institutions “are still thought of as relatively pure examples of what college sports at their best should be” (Simon, 2010, p. 140).

Notwithstanding the often-romanticized view of NCAA Division III sport, the division has not been immune from the criticism attached to big-time Division I athletics (e.g., Bass, Pfleegor, Katz, & Schaepkerkoetter, 2014; Pfleegor & Seifried, 2015; Scott et al., 2008; Sparvero & Warner, 2013). Resulting partially from such pressures to follow the popular and profitable model of “big-time” college athletics, sport scholars have questioned whether institutional forces have led Division III to mimic some of the realities of its Division I peers. This imitation has led sport scholars to express concerns with the Division III model’s propensity to become increasingly similar to the structure of Division I sport (e.g., Draper, 1996; Feezell, 2009; Fink, Pastore, & Reimer, 2003; Leonard, 1986; Simon, 2010; Sturm, Feltz, & Gibson, 2011). For example, Feezell (2009) explained that a growing concern exists among Division III athletic administrators regarding the athletic success gap between institutions (e.g., particular teams or conferences dominating from a win-loss standpoint). On the surface, this gap of athletic dominance appears to stem from a select number of colleges and universities, as well as their respective athletic conferences, placing a significantly greater amount of emphasis on athletic success than their peer institutions by allocating financial resources for more experienced coaching staff or building state-of-the-art athletic facilities. In addition to the gap concerning institutional athletic success, Bowen and Levin (2003) and Shulman and Bowen (2001) indicated that a meaningful divide existed between the academic performance of athletes and non-athletes, even at historically prestigious Division III member schools, offering further credibility to a potential departure from the foundational Division III operating philosophy. These differences in emphasis concerning athletics and academics demarcate various groupings of Division III institutions.

Despite concerns of growing isomorphism between Division I and Division III athletics (e.g., Sparvero & Warner, 2013), Division III institutions and their student-athletes maneuver together with a different perspective than the ideologies that permeate Division I sport. The overwhelming majority (i.e., approximately 95%) of Division III administrators responded that student-athletes should meet the same academic standards as members of the general student population (Emerson et al., 2009). Pauline (2010, 2012) discovered that high school sport recruits that deliberately choose to participate at the Division III level considered academic concerns more thoroughly during their quest to select their intercollegiate athletic fit than those...
being recruited by, and selecting to participate at, Division I and II institutions. These notions lend credence to the fact that Division III institutions still maintain, or wish to maintain, a high level of academic integrity, and aspire to integrate student-athletes into the general student population as purported by the division’s philosophy statement (NCAA, 2013).

Division III institutions, which outnumber their Division I and Division II counterparts, account for 450 of the 1,066 currently active NCAA member institutions (NCAA, 2012). Due to this considerable figure, Division III members are an academically and socially diverse set of colleges and universities. For example, NCAA Division III consists of private institutions with student-body populations of fewer than 500, to large public institutions boasting student populations well over 20,000 (Miranda, 2009). Yet, even more discerning than student population, the “academic profiles and campus cultures” of the colleges and universities fluctuate to great extents (Miranda, 2009, p. 9). Noting these disparities, Division III has lent itself to the development of typological subsystems within athletics, as the goals and missions of member institutions vary significantly (Bass et al., 2014). Specifically, the tenets of institutional theory indicate the tendency for like-minded organizations to become more similar over time. Applying these ideas to institutions under the Division III model, Bass et al. (2014) posits preliminarily that four different types of Division III institutions exist: Academically Elite, Large Public, Mission-Driven Privates, and Liberal Arts colleges and universities.

Given the conflict between the philosophical goals of Division III athletic programs and the institutional pressures to imitate their Division I peers, the purpose of this study is to examine if Division III athletics has become more like Division I based on competitive performance. Using the factors that predict athletic department competitive success in NCAA Division III athletics on a yearly basis, we examine if the discrepancy between athletically successful and non-successful Division III programs has remained constant or changed throughout the history of Division III athletics. We illustrate that two different types (Bass et al., 2014) of Division III athletic departments are disproportionately likely to experience competitive success in terms of winning championships at the Division III level.

The current study examines a combination of institutional factors (e.g., student population, academic prestige) and athletic factors (e.g., expenditures on sport) obtained from the Equity in Athletics Disclosure Act (EADA) survey and the Princeton Review in an attempt to establish various factors for athletic success. To account for both past and current success, the institutional and athletic variables will first be analyzed with the yearly total point accumulation in the NACDA Learfield Directors’ Cup through a sequential multiple regression model to establish contemporary criteria. Second, a negative binomial regression model will be utilized to consider the variables with the total number of championships won to ascertain historical factors. This duel analysis utilizing contemporary and historical elements attempts to build on the discussion of NCAA factors of success presented by Lawrence and Li (2007) and Lawrence, et al. (2012). Ultimately, through the primary purpose of determining what factors are significant in determining athletic competitive success of NCAA Division III institutions, the current study has a secondary aim to comment on the type(s) of colleges and universities more likely to achieve athletic success within the division. Interestingly, a number of previous studies have analyzed the NCAA under the lens of institutionalism, concluding that institutional process mechanisms explain both macro institutional decisions like NCAA membership requirements (Washington, 2004) as well as micro organizational decisions such as athletic affiliation decisions (Smith, Williams, Soebbing, & Washington, 2013) or adding emerging sports (Washington & Ventresca, 2004). The balance between academic integrity, amateurism, and athletic goals allegedly
prevalent under the Division III model has faced similar institutional pressures since the emergence of Division III athletics in 1973. However, before the examination can be successfully undertaken, an understanding of the history and philosophy of NCAA Division III athletics, institutional theory, and the NACDA Learfield Directors’ Cup must be established.

**History and Philosophy of Division III Athletics**

The NCAA formally created Division III athletics in 1973 following a multiyear struggle over matters concerning the reorganization of the NCAA structure. The early history of the NCAA was marked by a single-divisional configuration, where all participating institutions competed in a sole, large, ‘Pangaea-like’ division (Katz & Seifried, 2014). From the first NCAA sponsored championship in 1921 until the 1950s, the NCAA participating members were not divided based on any competitive (e.g., financial support of athletics, historical success) or institutional factors (e.g., student-body enrollment, tuition, incoming freshman grades or standardized test scores), and all eligible members competed for the same postseason opportunities.

Katz and Seifried (2014) detailed the NCAA’s struggle for reorganization that ultimately resulted in the three-division format still largely in use by the NCAA today. While the details of the DIII history is beyond the scope of this research, what is relevant is that Division III was largely created as a response to environmental forces (i.e., increasing size discrepancy between public and private universities) that resulted in the growing dissatisfaction of the NCAA’s smaller members. Washington (2004) interpreted the evolution of the NCAA as a response to institutional changes in intercollegiate athletics, specifically the growing threat of the National Association of Intercollegiate Athletics (NAIA). The NAIA reached its membership peak of 558 members in 1973 comprised primarily of Teachers’ Colleges, Liberal Arts Schools, and Historically Black Colleges (Washington, 2004). As a result of the NAIA’s growth, the NCAA instituted the three-division format as part of a larger membership battle with the NAIA. Concerned with the growing dissatisfaction of the NCAA’s smaller colleges and intrigued by the thought of recruiting some of the NAIA members as well, the new structure of the NCAA was an institutional strategy by the NCAA within its competition with the NAIA. The NCAA’s new divisions ultimately led to many schools leaving the NAIA for the NCAA (Washington, 2004), and Smith et al. (2013) found that various social identities (i.e., geographic, religious) influenced an organization’s decision to leave the NAIA for the NCAA. Specifically, they noted that some schools transitioned to the NCAA to increase their exposure and receive a ranking from the Carnegie classification.

The institutional theory and historical examinations of Division III’s early years highlight that Division III as a structure of intercollegiate athletics was designed to emphasize a combination of the academic, athletic, and social experiences for student participants. From the initial founding in 1973, the newly minted organizational format intentionally established distinct differences between the operating procedures and philosophies between the divisions.

From the founding documents that established Division III athletics, the current NCAA Division III philosophy statement has morphed from a simplistic explanation of divisional goals to an all-encompassing set of parameters that differentiate the division from its Division I and II counterparts. According to the 2013-2014 NCAA Division III manual:
Colleges and universities in Division III place highest priority on the overall quality of the educational experience and on the successful completion of all students’ academic programs. They seek to establish and maintain an environment in which a student-athlete’s activities are conducted as an integral part of the student-athlete’s education experience, and which coaches play a significant role as educators. They also seek to establish and maintain an environment that values cultural diversity and gender equity among their student-athletes and athletics staff. (p. vii)

From this declaration, two important points must be noted. The first is that the philosophy of Division III athletics’ is solely concerned with the academic and social success of student-athletes, rather than athletic triumphs and national exposure as stipulated for Division I institutions. Insofar as the statement omits any direct mention of athletic, financial, or economic success of student-athletes, athletic programs, athletic departments, or institutions. Second, the divisional philosophy emerges to stress the interconnectedness and mutually beneficial relationship between education and athletics (e.g., explicit mention of coaches as educators). This point draws comparison to what the late former NCAA president, Myles Brand, coined the Integrated Model of intercollegiate sport (Brand, 2006). The Integrated Model, in stark contract to the financially driven Standard Model that pitted athletic and academic concerns at odds, stressed the importance of athletics for the campus community from a social, economic, and academic perspective (Brand, 2006). Further, Brand (2006) stressed that within a campus community, academic endeavors and athletics could not only coexist, but could support and enhance one another.

Without explicit mention of the disparities in divisions, Brand (2006) alluded that the Integrated Model (i.e., a structure evidently similar to Division III sport) is the most beneficial for student-athletes and their respective colleges or universities. It should be noted that it is not the goal of the current study to debate the best model of intercollegiate athletics. However, the present study does wish to determine whether Division III institutions are moving away from the Integrated Model towards the Standard Model by more closely resembling their Division I and II counterparts. In order to accomplish this task, the study must implement measures of both historical and contemporaneous athletic success. For this data, we rely on the Learfield Directors’ Cup standings, which attempt to measure success from a broad-based, program-wide perspective. In order to appropriately take into account the factors influencing program-wide decision-making, it is important to understand institutional factors that can ultimately lead to athletic success. Effectively understanding the role of such institutional factors merits a discussion of the fundamentals of institutional theory.

### Theoretical Framework: Institutional Theory

Institutional theory started to gain traction within the field of organizational theory in the 1970s and 1980s (Zucker, 1988). Although the definition of institutional theory has developed over time, Selznick outlined its initial premise by calling the organization “an adaptive vehicle” that is in a constant state of responding to the “influences and constraints from the external environment” (Scott, 1987, p. 494). Selznick used the principles of institutional theory with the Tennessee Valley Authority public corporation, and explained the generalizability of his work by focusing on adaptive change within educational, service, and voluntary organizations (Scott, 1987). Indicatively, institutional theory focuses on the fundamentality of institutionalization.
According to Meyer and Rowan’s seminal work (1977), “Institutionalization involves the processes by which social processes, obligations, or actualities come to take on a rulelike status in social thought and action” (p. 341). These rules take on such importance in the organization that the environment becomes deterministic. Thus, the organization follows rules and norms established by already legitimized similar institutions in the organization’s own quest to establish and maintain legitimacy (Meyer & Rowan, 1977).

Organizations strive for legitimacy because it is directly related to the institution’s chance of survival. Therefore, similar institutions follow the rules, norms, and practices of other institutions that have gained legitimacy. These imitations demonstrate the fundamental notion underlying institutional theory: organizations are in a constant state of adapting to other similar institutions that have gained legitimacy. Once these fields of imitation exist between numerous institutions with similar environments, “there is an inexorable push towards homogenization” (DiMaggio & Powell, 1983, p. 148). Groups of similar organizations become more similar over time because they are in a constant state of mimicking each other’s legitimizing rules and adapting to the influences and constraints of the institutionalized environment. Essentially, “organizational acquiescence depends on the organization’s conscious intent to conform, its degree of awareness of institutional processes, and its expectations that conformity will be self-serving to organizational interests” (Oliver, 1991, p. 153). Over time, successful, legitimate organizations look very similar, creating homogeneity when comparing different organizations. This homogeneity creates an explanatory tool for why members at the top of any proverbial food chain may appear quite similar.

These facets of institutionalization all create a setting in which isomorphic behavior becomes the norm as organizations respond to legitimizing forces in the organization’s own quest for legitimacy. As defined by DiMaggio & Powell (1983), “isomorphism is a constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions” (p. 149). Relatively similar organizations are constrained by the same external environments, and there is a continual cycle of mimicry of successful behaviors between the organizations. Consequently, the organizations become even more homogenous over time.

Isomorphic behavior has salient ramifications for organizations in the institutionalized system because this dependence on behavioral guidance from legitimized external entities decreases organizational turbulence and increases stability (Meyer & Rowan, 1977). Conformity is expected because “organizations are influenced by normative pressures, sometimes arising from external sources such as the state, other times arising from within the organization itself” (Zucker, 1988, p. 443) and organizations are incentivized to conform because of the ultimate goal of legitimacy and survival. Members within the organization follow internally adopted norms based on legitimizing behaviors that are externally adopted.

By modeling organizational behavior after other organizations, an organization’s measurement of success is based on external criteria. According to Meyer and Rowan (1977), “the use of external assessment criteria – that is, moving toward the status in society of a subunit rather than an independent system – can enable an organization to remain successful by social definition, buffering it from failure” (p. 349). The institutionalized organization protects itself, and is subsequently able to legitimize itself by participating in isomorphic behaviors. Therefore, as initially posited by Selznick, the organization continues as “an adaptive vehicle” that is in constant dialogue with the “influences and constraints from the external environment” (Scott, 1987, p. 494).
Institutional theory has a strong tradition in sport management and college athletics scholarship. Washington & Patterson’s (2011) review of institutional theory in sport management research identified several prominent themes related to the institutional tradition, including isomorphism, organizational fields, institutional logics, legitimacy, and institutional change. The authors also noted the salient role of institutional theory in examining the emergence and stability of the NCAA. Other studies have also previously used institutional theory to examine changes in the NCAA’s membership criteria (Washington, 2004), athletic affiliation (Smith et al., 2013; Washington 2004-2005), the growth and popularity of collegiate basketball (Washington & Ventresca, 2008), and organizational decisions to add emerging sports (Washington & Ventresca, 2004). The current study extends these prior works by examining institutional forces in the context of the founding philosophy of Division III athletics to explore if the division has remained true to its 1973 goals or mimicked the more popular and profitable model of Division I athletics.

Institutionalization of Division III and its Role in Higher Education

Describing the framework of institutional theory as it applies to Division III athletics provides the preliminary information to demonstrate the importance of the Division III model to higher education as a whole. All institutions under the umbrella of Division III, while predominantly unified in their support of the Division III model, are theoretically in their own quest for legitimacy, measured largely by meeting the mission of their individual institution. As such, they are subject to, and enticed by, legitimizing forces, which are in a continual and dynamic cyclical relationship with isomorphic behavior and institutionalization. Based on legitimizing forces and grouped isomorphic behaviors within and between Division III institutions, typologies of Division III institutions begin to emerge.

It is difficult for one particular institution to dually reduce turbulence and increase legitimacy in such a large group unless subgroups are generated. Thus, Division III institutions are further incentivized to group themselves with other like-minded institutions. Within these differing typologies that will be explained more thoroughly later in the present study, colleges and universities continue to model their behaviors after successful athletic departments and the aforementioned homogenization continues to take place. While these typologies continue to operate under the auspice of the NCAA Division III model, they also develop their own in-group definitions of legitimacy and success within their respective typology. “Success” may vary from typology to typology and will directly affect the decision-making processes of those universities. Success, and legitimacy, can be based on NCAA postseason success, financial viability, increased enrollment, building athletic and recreational facilities for the student body at-large to use, Title IX compliance or purely as a fun, intrinsically valuable extracurricular activity for students. Legitimacy for Division III athletic departments is indefinitely tied to Division III ideologies, but perhaps more importantly, legitimacy within the differing typologies will be based on shared isomorphic behaviors. The best measure of Division III, therefore, is legitimacy as measured against others within a select typology.

Isomorphic behaviors may include acting in a way to better university facilities, to balance the athletic department budget, to bring in tuition dollars for the university, to increase the ideals of a public or private university setting, or joining conferences with other Division III institutions in close geographic proximity. These isomorphic behaviors that are in a constant give and take with legitimizing forces combine to contribute to the institutionalization of typologies.
Division III Success

within Division III athletics. Preliminary typologies proposed by Bass et al. (2014) included Academically Elite, Large Public, Mission-Driven Privates, and Liberal Arts colleges and universities. Academic Elites are academically prestigious Division III institutions, such as Washington University in St. Louis or the University of Chicago ("The UAA", 2014). Large Publics are predominantly state institutions with large student-body enrollments, such as the University of Wisconsin-Whitewater within the University of Wisconsin system ("Wisconsin intercollegiate athletics," 2014). Mission-Driven Privates are those religious or cause-based institutions of higher education, such as Hope College ("Hope College", 2014). Lastly, Liberal Arts, while rather loosely defined, are general liberal arts colleges such as Hendrix College (Demirel, 2013). Although not comprehensive, this initial segmentation (i.e., typology) allows for a more rich investigation into competitive success through the lens of institutional theory.

The Directors’ Cup and Predictors of Athletic Success

Prior to the 1993-1994 NCAA athletic season, the National Association of Collegiate Directors of Athletics (NACDA) established the Directors’ Cup for Division I institutions (Learfield Sports, 2013). Two years later, NACDA expanded the Directors’ Cup to include competitions within NCAA Division II and III, as well as the National Association of Intercollegiate Athletics (NAIA). The Learfield Directors’ Cup, which was established as a collaborative effort between NACDA and the USA Today, “honors institutions maintaining a broad-based program” that achieve “success in many sports, both men’s and women’s” (Learfield Sports, 2013, Para. 1). In order to realize this mission, the Cup measures the success of twenty teams in Division I equally divided into men’s and women’s programs, fourteen teams for Division II, eighteen for Division III, and twelve for NAIA member institutions. Twelve time Division III Directors’ Cup champion Williams College’s Athletic Director noted, “an institution can’t win it or even be competitive without a broad-based program” (Steinbach, 2006, p. 46). Furthermore, Lawrence, et al. (2012) stated, “schools that are in the top 10…have allocated their resources throughout the athletics department to both men’s and women’s programs” (p. 209). Although scholarly discussion on the Learfield Directors’ Cup has been limited, several academics have utilized the final standings as a measure of athletic success (e.g., Lawrence & Li, 2007; Lawrence, et al., 2012).

Most recently, utilizing nineteen spending indicators from the EADA survey as independent variables and NACDA Directors’ Cup point totals as a dependent variable, Lawrence, et al. (2012) attempted to determine what relationship athletic spending had on athletic success. During their analysis, the authors determined that significant differences concerning predictors of success existed between the three NCAA divisions. For Division III institutions, Lawrence, et al.’s (2012) stepwise regression analysis illuminated three significant independent variables; (a) the average salary per full-time employee for women’s programs (p<.05), (b) the average operating expenses per team for women (p<.01), and (c) the total operating expenses per participant for women (p<.01). These findings appear to support the understanding that many Division III institutions fund men’s athletics to create opportunities for success. However, the institutions that financially support women’s programs have a greater likelihood of broad-based athletic success, and in turn, perform well in the Directors’ Cup standings. Building on the justification for Division III athletics, the guiding philosophy of the division, and previous research by Lawrence and Li (2007) and Lawrence, et al. (2012), this study hopes to continue the effort to determine predictors of athletic success at the Division III
level through institutional theory. Therefore, the Directors’ Cup standings will act as a vital component to the current study’s analysis. In all, we propose three hypotheses based on the above review of the relevant literature.

H1: Institutional factors like size and academic prestige will significantly predict recent and historical athletic success.

H2: Athletic expenditures will significantly predict recent and historical athletic success.

H3: Including athletic expenditures as a predictor will decrease the amount of variance in recent and historical athletic success explained by institutional factors.

Methods

The population of this study was limited to the 446 institutions classified by the NCAA as DIII members at the time of the analysis, including both active and provisional institutions. Next, institutional data on athletic expenditures needed to be available in the 2012 EADA survey. Not all institutions are required to publicize their financial records, and thus 33 institutions were removed from the dataset, providing a final sample size of 413 colleges and universities.

Athletic Expenditures

Data on the athletic expenditure of each included institution was found using the EADA survey. The EADA was theoretically designed to make prospective students aware of a school’s commitment to providing equitable athletic opportunities to both male and female students (EADA, n.d.). Consequently, all co-education institutions of higher learning that participate in federal student aid programs are required by law to complete the annual EADA survey (US Department of Education, 2013). The results from the 2011 EADA Survey were used, and more specifically grand total athletic expense were selected to embody the most accurate portrayal of the level of financial commitment to athletics. An average cost per sport or a cost per athlete was intentionally omitted due to the understanding that an overall budget is more representative of the financial resources dedicated towards athletics. In order to make the results more interpretable, the total figures were rescaled by $100,000.

Academic Prestige

Two different variables were computed to represent academic prestige: (a) tuition and (b) average incoming freshman high school GPA. Tuition values were derived from the Princeton Review’s website of key statistics. The tuition data were all collected in the same one-month period, so all totals represent the tuition for the same academic year. According to Dale and Kruger (2002), higher tuition costs are indicative of academic reputation and prestige since the tuition totals portray the willingness of consumers to pay greater prices for a comparative good. Secondly, average incoming freshman high school GPA figures were also used to represent selectivity, which is considered another measure of academic prestige. Data for this variable were similarly found using the Princeton Review’s online database. For institutions whose information was not listed by the Princeton Review, the authors employed several alternative sources such as COLLEGEdatal, an online college advisor website, and About.com’s college
application database. Because these figures were considered less reliable than the Princeton Review’s data, figures were verified across multiple sources prior to inclusion in the dataset.

**Institution Size**

Enrollment figures were determined from information available from the Princeton Review. Enrollment was included in the study to address whether the number of students, and thus potential student-athletes, has/had an impact on academic success. Although the average Division III institution boasts a smaller student population than Division I and II member schools, Division III nonetheless has a wide variety of enrollment sizes ranging from roughly 400 students to over 20,000 students (Miranda, 2009).

**Athletic Success**

Two different variables were computed to represent athletic success: (a) recent and contemporary success, and (b) historical success. Contemporaneous success was calculated using the results from the Learfield Sports Directors’ Cup, averaging the finishing positions according to total points from 2010, 2011, and 2012. The numbers utilized as the variable represent the rank in which the organization was placed by the rankings, not the raw score of the ranking equation (yearly point total). Lower numbers represented a more successful rank in the finish (i.e., 1 was the best, then 2). To determine historical success, a list of champions from all Division III sports since its founding in 1973 was created, and total number of championships won for a specific member institution was calculated. It is important to note that this total only includes sports sponsored at the Division III level. Division III schools that participate in other divisions in specific sports (i.e., Johns Hopkins participation in Division I lacrosse) did not receive credit for championships won outside of Division III.

**Analysis of Data**

To analyze the data such to explore the stated research questions, two separate models were created in order to test the relationships between the included institutional factors with current athletic success (Model 1) and historical athletic success (Model 2). Due to the nature of the dependent variables, different types of regression models were needed to appropriately explore the research questions. In Model 1, a sequential regression equation was constructed utilizing enrollment, incoming freshman high school GPA, and tuition as the independent variables in step 1 to predict the dependent variables, current athletic success. In step 2 of the sequential regression, athletic expenditures was included as an independent variable.

Model 1 was analyzed using sequential multiple regression, a common method of multiple regression often used in an explanatory manner. Because the research questions involved understanding which variables are important influences on the given outcome, athletic success, sequential regression is a useful analytic technique for determining whether variables are influential once other variables in the first step have already been controlled for (Keith, 2006). Moreover, Model 1 met all the assumption of sequential regression.

Model 2 required a different analytic strategy because the dependent variable, historic championships, violated the assumption of normality. Because such a large number of programs have won zero championships, the data were strongly skewed. Moreover, the dependent variable
is formatted as a count variable, since it takes on discrete values reflecting the number of occurrences of an even in a fixed period of time (Coxe, West, & Aiken, 2009). The most popularly used analysis to cope with count data are Poisson regressions, but our model is further complicated by the overdispersion of zeros in the dependent variable; the majority of Division III institutions have never won a national championship. A common method for accounting for overdispersion is the negative binomial model (Gardner, Mulvey, & Shaw, 1995; Long, 1997). The negative binomial model accounts for overdispersion by assuming that there will be unexplained variability among individuals who have the same predicted value. The additional unexplained variability leads to a larger variance than typical Poisson distributions, which is conceptually similar to the inclusion of an error term in normal linear regression (Coxe et al., 2009). Model 2 meets all the assumption of negative binomial regression.

Model 2 followed the same two-step approach as Model 1, where enrollment, incoming freshman GPA, and tuition were included as independent variables in the reduced model and athletic expenditures included in the full model. The dependent variable was the total number of championships won by the institution.

**Results**

**Recent Athletic Success**

Model 1 provides support for H1, H2, and H3. In the initial regression analysis, which included enrollment, tuition, and high school GPA as independent variables, both high school GPA (B = -118.861, p<.001) and enrollment (B = -.0098, p<.001) were significant predictors of current athletic success. The negative relationships between both independent variables and athletic success indicates that increases in both high school GPA and enrollment decrease ranking in the Learfield standings, which signals a stronger athletic performance by the school. Lower standing position is reflective of greater athletic success, so every one-point increase in average freshman high school GPA corresponds with a lower Learfield ranking of 118 positions holding other variables constant. Since enrollment data were not rescaled the coefficients are very small, but an increase of 1,000 students in enrollment corresponds with roughly a 10-position decrease in Learfield standing holding other variables constant. Therefore, Model 1 provides strong support for H1 in terms of size and incoming high school GPA, but not tuition.

The three variables in step 1 reported an R2 of .2436 (p<.001). Once athletic expenditures was included in step 2, high school GPA (B = -70.7192, p<.001) and enrollment (B = -.0060, p<.001) remained significant predictors and the additional independent variable of total athletic expenses was significant as well (B = -3.2867, p<.001). Importantly, even with the inclusion of athletic expenditures high school GPA and enrollment remained significant predictors and maintained the same directional effect on the dependent variable. Both high school GPA and enrollment reported less of an effect on their corresponding relationship with athletic success, which is to be expected with the inclusion of an additional variable as more variance is being controlled for by the extra predictor. Holding all other variables constant, an increase an athletic expenditures of $100,000 corresponds to 3.28 positional decrease in Learfield standing, indicating that athletic budgets are significantly related to athletic success. Step 2 reported a ΔR2 = .153 (p<.001). Tuition remained an insignificant predictor (p=.930). Model 1 then provides strong support for H2 and H3.
Table 1  
*Sequential Multiple Regression Analysis for Predicting Recent Athletic Success (n=413)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
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<tr>
<td><strong>Step 1</strong></td>
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<td>Enrollment</td>
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<td>Tuition</td>
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<td>High School GPA</td>
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<td><strong>Step 2</strong></td>
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<td>Enrollment</td>
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<td>Tuition</td>
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<td>High School GPA</td>
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<td>Total Athletic Expenses</td>
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<td>.3232</td>
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</table>

R² = .2436, p<.001 for Step 1; ∆R² = .153, p<.001 for Step 2

**Historic Athletic Success**

Model 2 also shows support for H1, H2, and H3. In Model 2, which again included enrollment, tuition, and high school GPA as independent variables in the restricted model, both high school GPA (β = 2.87, p<.001) and enrollment (β = .0003, p<.001) were significant predictors of historical athletic success. Therefore, Model 2 provides strong support for H1A in terms of size and incoming high school GPA, but not tuition. Negative binomial models do not produce R2 or pseudo-R2 statistics, but a likelihood ratio test may be used to assess whether the full model included expenditures is a significant improvement over the first model. A likelihood ratio test indicated that the full model was a significant better fit than the restricted model, X²(1) = 1291, p<.001), providing support for H2A. With the addition of athletic expenditures in the full model, high school GPA (β = 2.4706, p<.001) and enrollment (β = .0002, p<.001) remained significant predictors and total athletic expenses was significant as well (β = .0593, p<.001), which supports H3A. Interestingly, similar to the sequential regression model of current athletic success, both enrollment and high school GPA experienced decreased betas as a result of including total athletic expenses into the model.

The regression coefficients in negative binomial models are more complicated to interpret than in simple regression. The exponentiation of the regression coefficient indicates that for every 1-unit change in the independent variable, the dependent variable multiplies by that amount (Coxe et al., 2009). So for total athletic expenditures, e.0593 = 1.06, which indicates that 1.06 is the predicted multiplicative effect of a 1-unit change in total athletic expenditures on historical athletic success. So a $100,000 increase in athletic expenditures corresponds with a 6% increase in expected historical championships won controlling for all other independent variables. A full listing of exponentiated regression coefficients are found in Table 2. Any figure less than 1 represent a decreased rate of incident, while values greater than 1 indicate an increase rate of incident.
Table 2

Negative Binomial Model Analysis for Predicting Historical Athletic Success (n=413)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>e^B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrollment</td>
<td>.0003***</td>
<td>.0001</td>
<td>1.0003</td>
</tr>
<tr>
<td>Tuition</td>
<td>.1218</td>
<td>.0859</td>
<td>1.1295</td>
</tr>
<tr>
<td>High School GPA</td>
<td>2.87***</td>
<td>.4651</td>
<td>17.6370</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrollment</td>
<td>.002***</td>
<td>.0001</td>
<td>1.0020</td>
</tr>
<tr>
<td>Tuition</td>
<td>.0829</td>
<td>.0562</td>
<td>1.0864</td>
</tr>
<tr>
<td>High School GPA</td>
<td>2.4701***</td>
<td>.4527</td>
<td>11.8236</td>
</tr>
<tr>
<td>Total Athletic Expenses</td>
<td>.0593***</td>
<td>.0134</td>
<td>1.0610</td>
</tr>
</tbody>
</table>

Likelihood Ratio was significant, $X^2(1) = 1291.6, p<.001.$

Discussion and Concluding Thoughts

Profile for Success

The results suggest that a particular profile for success emerged in Division III athletics. Specifically, two types of institutions appear to maintain the greatest opportunity for athletic success: (a) institutions with large student-body populations, and (b) small highly selective institutions. Thus, of the four typologies (Bass, et. al., 2014), a disproportionate amount of academic elite institutions and large public institutions were successful when compared to liberal arts and mission-driven member institutions.

Large public institutions such as those seen in the Wisconsin Intercollegiate Athletic Conference (WIAC) regularly boast student populations over 10,000, and acceptance rates over 75% (UWLAX, 2013; UWOSH, 2011; UWSP, n.d.). Historically, the University of Wisconsin-La Crosse, the University of Wisconsin – Oshkosh, and the University of Wisconsin- Stevens Point combined to win more than 70 national championships. Similar to institutions in the WIAC, member schools of the New England Small Colleges Athletic Conference (NESCAC) such as Williams College, Middlebury College, and Amherst College supported historically successful athletic programs (i.e., more than 75 national championships). However, unlike the WIAC institutions, NESCAC members regularly have student populations below 3,000, and preserve acceptance rates between 10 and 20 percent (Amherst College, n.d.; Middlebury, n.d.; Williams, n.d.). Ultimately, it appears that in order to be athletically successful in Division III athletic competition, institutions can be large or selective, and there does not appear to be substantial opportunities for institutions that do not fall into one of these profiles.

The findings of the current study illuminate the outcomes showcased in the previously presented research by Lawrence and Li (2007) and Lawrence, et al. (2012). Lawrence and Li (2007) highlighted significant relationships between athletic success (i.e., standing in the Directors’ Cup) and expenditures. Next, Lawrence, et al. (2012) categorized their findings by divisional level, and determined that the average annual salary per FTE for women’s programs,
Division III Success

Comparably, the current study indicates that athletic expenditures significantly correspond with recent and historical athletic success. From a historical perspective, an increase in $100,000 corresponds with a 6% increase in championships won. It has previously been noted that Division III members consist of a diverse set of institutions, which allocate vastly different amounts towards athletic programs. For higher spending institutions with budgets approaching $5 million per fiscal year (e.g., Williams College, Middlebury College, Amherst College, Bowdoin College), an increase of $100,000 relates to a relatively low percentage increase, which may provide incentive to spend an additional $100,000 for the fiscal year towards athletic success. However, institutions with athletic budgets substantially below $1 million a year (e.g., Newbury College, Bard College, Lancaster Bible College, Rosemont College) a $100,000 budget increase for a 6% increase in championships would be an unrealistic financial undertaking. Ultimately, the current study suggests that institutions that allocate a greater amount towards the total operating budget are more athletically successful from a historical perspective in terms of championships won and contemporarily in terms of Directors’ Cup standing.

From the current results, the tuition independent variable was insignificant in both the contemporary success factor and historical success factor models. In disagreement, the incoming freshman GPA independent variable was significant for both models. This noteworthy division between the two indicators of academic prestige potentially suggests that tuition does not relate to prestige in terms of athletic success (e.g., recruitment of student athletes). Although the results cannot counter Dale and Kruger (2002) claim of tuition cost as a prominent indicator of academic prestige, they do suggest that further investigation/elaboration is perhaps needed on the connection between them. Despite this mixed statistical result, the incoming freshman GPA variable suggests that selective schools appear to experience more athletic success. This finding highlights the Division III philosophy surrounding the complete integration into the educational experience (i.e., the Integrated Model). Within NCAA Division III athletics, academic success and athletic success are not mutually exclusive excellences. In fact, the current study indicates these triumphs are genuinely connected, which supports the scholarly claims of Division III sport maintaining the pure and amateuristic identity that has been commonly challenged in association with Division I athletics.

The comparison of the current success and historical success models provided some interesting suppositions concerning the critical debate over the purity of Division III athletics. Within both regression models, the directional impact and significant relationships were the same for the tuition, incoming freshman GPA, and allocation of funds independent variables. Although some limitations exist in the comparison of the two models, it appears to contest the charge against Division III sport that has claimed the divisional philosophy and contemporary practical operation is becoming increasingly similar to the Division I Standard Model. Although the comparison lacks the ability to comment on how appropriately the philosophy is being upheld from its origins, it can indicate that Division III athletics have remained strikingly similar since their 1973 inception.

Alternate Definitions of Success

Clearly, Division III athletic departments must operate under the auspices of the governing body of the NCAA and must operate in line with the mission of Division III as a
whole. At the same time, athletic directors must report to more than just the leaders of the NCAA; they also report to university administrators. While university administrators are inherently advocates of providing an environment that is conducive to the development of the aforementioned “comprehensive educational experience,” university administrators also have to operate within budgetary constraints. Similarly, athletic department administrators have to demonstrate the viability of operating a Division III athletic department. While Division III athletic administrators have the full support of the NCAA to enhance the student-athlete experience and can use that to demonstrate viability in this manner, the athletic department necessarily also has to contribute to the legitimacy of the university as a whole.

As such, the aforementioned profile for athletic success is actually based on the premise that athletic departments measure their own success based on competitive (i.e., on-field victory) results. However, it could be argued the true definition of athletic success is actually based on the type of the institution and what the institution itself deems as a legitimate athletic department. Based on the most recent Director’s Cup standings, it is clear that competitive success is overwhelming found in either the academically elite or large public institutions (see Table 3). For example, of the top ten finishers in the 2013-2014 Director’s Cup, nine institutions would be classified as either academically elite or large public institutions (see Table 3). Moreover, in the just released 2014-2015 rankings, all ten of the institutions would be classified as elites or large publics.

Table 3
2013-14 Division III Learfield Sports Directors’ Cup Standings

<table>
<thead>
<tr>
<th>'13-'14 Standing</th>
<th>School</th>
<th>Typology</th>
<th>Acceptance % (Fall '13)</th>
<th>Tuition &amp; Fees ('14-'15)</th>
<th>Undergrad Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Williams</td>
<td>Acad. Elite</td>
<td>17.5</td>
<td>$48,310</td>
<td>2,077</td>
</tr>
<tr>
<td>2</td>
<td>Wisconsin Whitewater</td>
<td>Large Public</td>
<td>69.9</td>
<td>$7,578 (in-state)</td>
<td>10,864</td>
</tr>
<tr>
<td>3</td>
<td>Johns Hopkins</td>
<td>Acad. Elite</td>
<td>17.1</td>
<td>$47,060</td>
<td>6,251</td>
</tr>
<tr>
<td>4</td>
<td>Washington Univ. (MO)</td>
<td>Acad. Elite</td>
<td>15.6</td>
<td>$46,467</td>
<td>7,336</td>
</tr>
<tr>
<td>5</td>
<td>Amherst</td>
<td>Acad. Elite</td>
<td>14.3</td>
<td>$48,526</td>
<td>1,785</td>
</tr>
<tr>
<td>6</td>
<td>Emory</td>
<td>Acad. Elite</td>
<td>26.5</td>
<td>$45,008</td>
<td>7,836</td>
</tr>
<tr>
<td>7</td>
<td>Tufts</td>
<td>Acad. Elite</td>
<td>18.9</td>
<td>$48,643</td>
<td>5,180</td>
</tr>
<tr>
<td>8</td>
<td>MIT</td>
<td>Acad. Elite</td>
<td>8.2</td>
<td>$45,016</td>
<td>4,528</td>
</tr>
<tr>
<td>9</td>
<td>St. Thomas (MN)</td>
<td>Mission-Driven</td>
<td>86.2</td>
<td>$34,442</td>
<td>6,350</td>
</tr>
<tr>
<td>10</td>
<td>Middlebury</td>
<td>Acad. Elite</td>
<td>17.6</td>
<td>$46,044</td>
<td>2,495</td>
</tr>
</tbody>
</table>

Thus, there is reason to believe that for many of the Division III athletic departments, success is largely defined as the value added to the institutionalized structure of higher education. Restated, how an institution defines success will inherently vary based on a school’s...
entrance and continued part of a specified typology. Of the 450 Division III institutions (four have been added to Division III since the data collection described above; NCAA, 2012), only 246 scored a single point based on the Director’s Cup point system. Thus, for the nearly 200 athletic departments that did not receive any points, athletic department success has to arguably be measured differently than just with on-field performance. Some Division III institutions may view their athletic departments as a tool for enhancing feelings of community, as Katz and Clopton (2014) found that Division III athletics might be one of the conduits for connecting students with their local communities, helping to bridge the transition for out-of-town students into their new communities. Such communal impacts of Division III sports may occur without scoring any points in the Director’s Cup.

Other Division III institutions may be more concerned with using athletics as a recruiting tool than collecting championships. For the 2012-2013 academic year, 178,441 athletes competed at the Division III level, more than at Division I institutions (NCAA, 2013). In fact, at the small college level, these figures are only increasing. One reason for the escalation – and for varying definitions of athletic success - is university administrators are increasingly acknowledging that athletics are being used to combat decreasing enrollment numbers at small colleges. As Thomas More College President Dave Armstrong stated, “I guarantee you we’re making money on athletics. It’s an enrollment driver” (Peale, 2013, Para. 5). Armstrong would know as Thomas More, a NCAA Division III member in Kentucky, has an enrollment of 1,900 students, 400 of which are student-athletes. Those student-athletes pay about $5.3 million annually to the university through tuition, meals, and housing even after their university financial aid is deducted (Peale, 2013). Armstrong is not alone in recognizing the importance student-athletes have to the financial well being of small colleges. Demirel (2013) found, “…between 2008 and 2012, 29 smaller colleges started lower-level football programs. And in 2013…12 more colleges started football programs…In Division III alone, 10 schools have started football programs in the past five years” (Para. 7). Thus, in the same way that big-time universities use athletics to attract students, donations, and national attention (Bass & Newman, 2013), small colleges often rely even more directly on student-athletes for survival. Ultimately, understanding how a Division III athletic department is responsive to its external environment of the higher education institution as a whole and how it is responsive to other Division III athletic departments only provides further support that looking at these dynamic relationships through the vehicle of institutional theory is vitally relevant for all constituency groups involved.

Limitations and Future Research

Within the current study, two noteworthy limitations are present. The first is that the indicators for athletic success utilized in the contemporary model (i.e., Learfield Directors’ Cup standings) and the historical model (i.e., number of championships won) are very different numerical indicators. However, no Directors’ Cup data exists for NCAA Division III athletics prior to the Cup’s expansion for the 1995-1995 athletic season. Despite this, the identical directional impacts between the two models provided valuable information concerning the historical progression of Division III athletics. Rather than being the primary focus of the current study, the historical data were employed to help determine whether the competitive landscape of Division III athletics has meaningfully changed over time.

The second limitation concerns the formula utilized for the Learfield Directors’ Cup. To determine point totals on a yearly basis, and ultimately a standing indicator (i.e., finishing
position), the Directors’ Cup employs the athletic information from the top nine men’s and top nine women’s programs. This indicator can be problematic considering institutions with larger athletic budgets can support upwards of thirty athletic programs. To contrast these programs, institutions with small athletic budgets support less than half the amount of teams. Maintaining the ability to drop the lowest performing programs from the Directors’ Cup standings creates a distinct competitive advantage for institutions with large athletic expenditures.

Throughout the completion of this study, several opportunities for future research were illuminated. First, the fragmented result between the tuition and incoming freshman GPA independent variables prompts questions concerning the validity of assuming tuition is a quality indicator of academic prestige. Therefore, further work concerning tuition cost correlation with academic performance and prestige is needed. Second, although the results showed that the practical operation of Division III sport has remained fairly consistent over time, an examination of how the operation amalgamates with the foundational philosophy would provide valuable information on Division III athletics. In essence, further study could potentially alleviate the debate over the purity of Division III sport. Lastly, the results of the current study indicate that Division III athletics is not ideal for all non-Division I and II NCAA members. Therefore, future research could develop and support an intercollegiate athletic division (e.g., NCAA Division IV, NCAA Division IIIa) that would provide equitable opportunity for Division III schools that do not fall into the contemporary and historically athletic successful categorizations of large or selective. In order to investigate this, a more thoroughly defined and articulated typology of Division III institutions should be established and described. The segmentation of like-minded institutions would provide the foundation for a more thorough and descriptive investigation of Division III programs and their athletic departments.
References


Steinbach, P. (2006). Do the right thing: Athletic departments that have dominated the Directors’ Cup have committed resources broadly, hired shrewdly and acted nobly. *Athletic Business, 30*, 44-52.


