GET WHAT YOU GIVE? AN ANALYSIS OF AUTOMATIC-QUALIFYING CONFERENCE INSTITUTIONS’ RETURN ON INVESTMENT AND EFFICIENCY IN THE LEARFIELD DIRECTORS’ CUP

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A thesis proposal submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Master of Arts in the Department of Exercise and Sport Science (Sport Administration).

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ABSTRACT

TIMOTHY R. KELLY: Get What You Give? An Analysis of Automatic-Qualifying Conference Institutions’ Return on Investment and Efficiency in the Learfield Directors’ Cup (Under the direction of Coyte G. Cooper, Ph. D.)

Intercollegiate athletic administrators constantly face the challenge of allocating their resources in order to be as efficient and effective as possible. The pressure to succeed requires they know what type of return they will get when investing funds in a particular area. The purpose of this study was analyze the efficiency and return on investment based on athletic success that Bowl Championship Series, Automatic-Qualifying conference institutions (n=65) athletic departments attain through the Learfield Directors’ Cup. The study also examines specific subsets of the group to gather actionable data. Among other findings, total expenditures were found to be very important overall, but in varying degrees for different subsets. The results provide a comprehensive picture of the relationship between finances and success and have implications that can assist administrators when making large-scale decisions.
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Chapter 1

INTRODUCTION

College athletics has long inspired great passion, emotion, personal investment from those who participate, administer, and follow it closely. This popularity has contributed to its continuing evolution. Despite its intended fit under the umbrella of the university, National Collegiate Athletic Association (NCAA) Division I athletic programs have often drawn a great deal more attention than any other part of the institution, and as a result scholars have recognized this phenomenon and used the phrase “front porch” (Shulman & Bowen, 2001), referring to the athletic department, to describe it. This attention has not come without scrutiny, particularly recently as more specific aspects of college athletics have entered the public conscience. This paper will focus primarily on one of those aspects: the financial operations of NCAA Division I college athletic departments.

The increasing grandeur of NCAA Division I athletics is evident by tuning into a national broadcast of a football or men’s basketball game. Thousands of people in attendance and millions more watching combined with sponsorships, promotions, and luxury seating point to the fact that college athletics has become a commercial venture and has outgrown its original intended scope.

This unanticipated, rapid growth has led to an enormous amount of emphasis placed on the success of athletic programs. Public scrutiny and knowledge of the resources invested in college athletics is at an all-time high. This fact makes it very important for athletic
administrators to know the return on investment they are getting in regards to athletic success. No two athletic departments have the same exact model, theory, or approach. This study seeks to identify which aspects of a collegiate athletic department are more efficient than others.

**Statement of Purpose**

The purpose of this study is analyze the efficiency and return on investment based on athletic success that Bowl Championship Series, Automatic-Qualifying conference institutions (n=65) athletic departments are attaining. By in large, these are the most successful and highest spending athletic departments that receive the most media coverage and have the largest fan bases. Therefore, they theoretically have the most at stake. In addition, the resources they have access are so much greater than the rest of NCAA Division I, that it warrants a study to look at schools on this tier alone. The results will provide context for strategic decisions made by administrators when allocating funds and setting specific goals.

**Research Questions**

Based on the review of literature, the following questions were formed for this study:

**RQ 1.** Do total athletic department expenditures (minus financial aid) lead to success in the Learfield Directors’ cup?

**RQ 2.** Is there a difference in success based on total athletic department expenditures (minus financial aid) between broad-based and narrowly focused programs?

**RQ 3.** Is there a difference in success based on total athletic department expenditures (minus financial aid) between men’s and women’s programs?
RQ 4. Is there a difference in success based on total athletic department expenditures (minus financial aid) between revenue (men’s basketball and football) and non-revenue (all other sports) programs?

Assumptions

1. The research methods used in this study are valid and reliable.
2. Teams have accurately reported their financial data to the Office of Postsecondary Education of the U.S. Department of Education.
3. The Learfield Directors’ Cup is a comprehensive, reliable measure of overall competitive success in a collegiate athletic department.

Delimitations

1. This study is only examining five conferences in NCAA Division I. These conferences are regarded as the highest spending and most successful. This study is not representative of all of NCAA Division I.

Limitations

1. Not all NCAA Division I athletic programs necessarily use the Learfield Director’s Cup as their ultimate measure of success, therefore winning the Directors’ Cup their goal year in and year out.
2. The EADA survey sent to institutions is intended to achieve the most accurate and comparative data possible. While the survey is comprehensive, there is still a possibility that some institutions report their financial data differently.

Definition of Terms

1. Learfield Directors’ Cup: Measure of holistic athletic department success. Scores are taken from the top ten performing programs in each athletic
department and are awarded points based on final standings, the nature of which varies for each sport. No sport is valued over another in scoring. Schools may score in more than ten sports, but only the top ten are used in final standings.

2. **EADA Report**: An annual, web-based, data collection of athletic department expenditures and revenues for institutions receiving federal funding. Intended to be used to ensure gender equality, it provides detailed financial data for athletic departments.

3. **Broad-Based Athletic Program**: Institutions sponsoring 23 or more sport programs.

4. Narrowly Focused Athletic Program: Institutions sponsoring 18 or less sport programs.

5. **Revenue Sport**: Sport program that generates revenue, or produces more money than it spends. Almost always football and men’s basketball programs.

6. **Non-Revenue Sport**: Sport programs that spend more money than it generates. Almost always sport programs other than football and men’s basketball, although these two programs can also be non-revenue sports, particularly at smaller institutions.

**Significance of Study**

The pressure to succeed in college athletics grows with its popularity. Never before have college athletics been more visible or relevant. This has led to increased pressure on collegiate athletic administrators to succeed and put a good face forward for the institution. These administrators must make strategic decisions for their athletic departments with short
and long term goals in mind. Having data on these decisions available is vital to making informed decisions.

This study seeks to produce data that is helpful for athletic administrators looking at return on investment and efficiency related to the success of their sport programs. The study will look at this issue from a macro level and also find differences, if they exist, between a few key factions of college athletics, including male and female sports, revenue and non-revenue, and broad-based and narrowly focused programs. This study will focus on the five most powerful, profitable, and relevant conferences, referred to as the automatic qualifiers, as they likely have the most at stake financially with the outcomes of the athletic departments.
Chapter 2
REVIEW OF LITERATURE

Current Financial Landscape of College Athletics

Expenses and revenues in college athletics are growing at an alarming rate, often outpacing increases in spending in comparable areas of their institution (Desrochers, 2013, p. 2). This fact is evident by the grandiose facilities being built at schools across the country. The most recent and potentially most ostentatious facility was completed in the summer of 2013 by the University of Oregon, already known for their groundbreaking approach to college football through constantly changing uniforms and unique amenities designed to appeal to recruits and fans and bankrolled by Nike Founder Phil Knight (Manfred, 2013). This facility, a $68 million, 145,000 square foot football operations building features a lobby with 64 televisions, barber shop, weight room with Brazilian wood flooring, and several other luxurious features. (Manfred, 2013) Facilities like this and ever increasing expenses and revenues have led to several commissioned studies analyzing the reasons behind ethics and the results of rapidly growing expenses and revenues within the past decade. Examples include the Delta Cost Analysis (Desrochers, 2013) and Restoring the Balance: Dollars, Values, and the Future of College Athletics (Knight Commission on Intercollegiate Athletics, 2010). In addition, the NCAA and Equity in Athletics Data Analysis publish financial reports with information from member institutions through a survey that requires reporting of revenues and expenses in a similar, if not identical fashion.
Facilities like Oregon’s, with new ones undergoing and completing construction every year, have proved to play a prominent role in rapidly increased spending in college athletics, often referred to as an “arms race.” (Bennett, 2012) This industry has been unaffected by the recession even though nonresidential public construction decreased in 2009 and 2011 (Bennett, 2012). Pressure to stay competitive and appeal to recruits has led major football programs from institutions such as the University of Arizona, Arkansas University, Baylor University, Boise State University, University of California-Berkley, Florida State University, University of Iowa, Kansas State University, Louisiana State University, University of Louisville, Michigan State University, the University of Southern California, Washington University and many others to build new facilities in order to compete.

In 2010, the Knight Commission on Intercollegiate released a report, *Restoring the Balance*, which analyzed the increased spending of Football Bowl Subdivision (FBS) NCAA Division I institutions. This report found that from 2005 to 2010, athletic spending per student athlete has risen by 51% ($60,727 to $91,936) compared to academic spending per student 23% ($11,079 to $13,628). Right or wrong, these statistics illustrate that athletic departments are investing significant amounts of money in student athletes. Some institutions, commonly referred to as “haves” are able to invest considerably more than their counterparts, the “have nots.” The highest quartile of FBS athletic departments spent nearly $150,000 on each student athlete compared to $51,532 at the lowest quartile. (Knight Commission on Intercollegiate Athletics, 2012).

Often times, “have nots” are forced to rely on their institutions’ general funds for support. At the lowest quartile of FBS, institutional support makes up approximately half of the budget for the athletic department. (Knight Commission on Intercollegiate Athletics,
2012) With athletic spending per student being four to eleven times more than academic spending per student and greater pressure placed on institutions to subsidize athletics, it is important for administrators to know how far their money is going and how to spend it efficiently.

It is not only the athletic department and institution that provide revenue for the increasing expenses. Student fees are an important funding mechanism used by institutions to subsidize a wide range of causes and athletic departments are often given priority support. While athletic departments in the top two quartiles of athletic budgets (ranging from $45 million to $130 million) typically have lower student fees and less institutional support, the remaining smaller athletic departments are much more reliant on both. (Desrochers, 2013, p. 9) In the lowest quartile, student fees make up 31% and institutional support makes up 31.8% of a median budget of $17 million as opposed to 2% and 1.9%, respectively for the highest quartile. This equates to an average approximate subsidization of $10.7 million for the lowest quartile and $4 million for the highest.

Desrochers (2013) concludes that Division I athletic departments and institutions “reexamine their game plans.” (p. 11) It is clear on the balance sheet that Division I athletics are not profitable for the vast majority of schools. According to Derochers (2013), “Fewer than one in four of the 97 public FBS athletic departments generated more money than they spent in any given year between 2005 and 2010” (p. 10).

It’s also evident that institutions at least perceive that they are receiving other benefits by supporting Division I athletic programs. As stated, very few are profitable and almost none are able to give any back to academic programs, save for wealthy schools receiving huge amounts of revenue from ticket sales, donations, and media rights, such as Louisiana
State University, who agreed to give $36 million to academics over a five-year period.

(Associated Press, 2012) Derochers (2013, p. 11) asserts that “athletic programs, particularly successful ones, can serve as advertising vehicles, boosting exposure and prestige.” However, it is difficult to prove these benefits, let alone quantify their value.

The first time that these types of benefits were recognized and discussed by the public was in 1984 when Doug Flutie’s “hail mary” pass lifted Boston College to victory over The University of Miami in a thrilling game on Thanksgiving Day. (Chung, 2013, p. 1) This event and the attention that accompanied it generated a substantial increase in applications and prominence for the institution. The “Flutie effect” now refers to this phenomenon.

Chung (2013) attempted to look at the “Flutie effect” by using market-level data controlling different factors for a student’s choice for postsecondary education. He found that this increase in applications and exposure is fleeting, but significant. When an institution’s football team goes from mediocre to above average, applications increase by 17.7%. (Chung, 2013, p. 8) Chung also found that the success of an institutions’ athletic programs are more important to a student of a lower ability, but that SAT scores increase by 4.8% with high-level athletic success (p.18).

More recently, relatively smaller institutions or “mid-majors” like George Mason University, Virginia Commonwealth University, Butler University, and Wichita State University have experienced an incredible boost in publicity by advancing to the “Final Four” of the NCAA Men’s Basketball Tournament. During George Mason’s 2006 tournament run, they generated an estimated $677 million in free media. (Baker, 2008) Patriot Club gifts increased 52%, GoMason.com page increased 503%, and ticket sales doubled as a result of the success of the men’s basketball team. (Baker, 2008) This type of
success isn’t reserved for mid-major schools alone, but in a broader sense, Alexander and Kern (2010) point out that success in Division I college athletics results in attracting additional and better applicants, encouraging donations to the general academic fund. Zimbalist (2001) adds that athletics has other effects as well, “arousing legislative largesse among sports-crazed individuals.” (p. 152)

As demonstrated by the institutions mentioned above, success in collegiate athletics appears to pay huge dividends for the university not only monetarily, but also by providing exposure that is unrivaled. The potential for this type of payoff from athletic success has led to the rapid financial growth (athletic spending per student-athlete up 51% from 2005-2010) in college athletics. (Desrochers, 2013, p. 5) However, there are 340 Division I institutions (120 in the FBS) (NCAA, 2013) and not every single one can experience this type of competitive success, or even moderate success each year in the high profile, revenue driving sports (football and men’s basketball). Overall financial success is even rarer, with only 23 Division I programs being self-sustaining, or able to operate off of their own generated revenues. (Berkowitz, Upton, & Brady, 2013) The remaining institutions require institutional, state, and student fee subsidies to operate and attempt to compete. In addition, subsidies rose by $200 million between 2011-2012, the largest increase since the 2004-2005 fiscal year. (Berkowitz, Upton, & Brady, 2013)

Further adding to this challenge is the current state of higher education in America, which is still recovering from the recession. This economic downturn has not left the endowments, budgets, and donations of institutions of higher learning untouched with “hiring freezes, construction projects put on hold, and tuition hikes in resulting from a cut in costs affecting almost every part of the institutions.” (Zimbalist, 2011, p. 5) But as Zimbalist
(2011, p. 5) points out, “Athletics spending continues to be on the rise.” Budgets continue to rise and a record number of institutions are attempting to move from Division II to Division I, with a large chunk targeting the Football Championship Subdivision (FCS) and the more competitive and potentially more profitable FBS, calling for more resources to pay for the fees, additional scholarships, and increases in the operating budget in order to compete. (Winthrop Intelligence, 2013)

With the amount of investment and emphasis put into collegiate athletics at the Division I level, it is important to know the return they are getting on their investment. Zimbalist (2001) realized the importance of this over a decade ago as it relates to the approach of collegiate athletics administrators. “Many college administrators now however acknowledge that college sports is a business venture, and the universities are more and more likely to justify their investment in athletics programs by appealing to the economic benefits that those programs allegedly provide to the university.” (Zimbalist, 2001, p. 152) With the pressure to succeed on the field combined with the need for that success to lead to financial gains and the other benefits previously discussed, collegiate administrators at the Division I level need to define what success means to them individually and the institution, and what types of investments are needed to reach that success. Ultimately, this can be influenced by the makeup of the athletic department, the numbers of sports it offers, its inherent strengths and weaknesses, and the strategic decisions made by leaders within the organization.

**Broad-Based and Narrowly Focused Athletic Programs**

Athletic departments can have very different approaches to achieving success based on the number of programs they offer. For example the University of Virginia sponsors 25 sports while Iowa State University only sponsors 16. Both are BCS programs in one of the
five largest conferences, but have chosen to allocate their resources in different ways. The University of Virginia has what is commonly referred to as a “broad-based” athletic program, meaning that it offers a large amount of sports and participation opportunities compared to the NCAA minimum of 16 sports for a Division I institution. (National Collegiate Athletic Association, 2013)

The fact that an institution has a broad-based program can be the result of many factors, including tradition, sustained success, adequate funding, and commitment to offering more opportunities to student athletes. The conflict between supporting a broad based program and focusing more intently on fewer sports is summarized by Southall, Nagel, Amis, & Southall (2008): “Provide relatively fewer participation opportunities to maximize the amount of resource allocation to teams and participants…Provide relatively larger participation opportunities to maximize students’ involvement in intercollegiate athletics.”

Success in collegiate athletics can be measured in several different ways. An athletic department that is self-sustaining and even profitable is a form of success in itself as that program can avoid any criticism that they are taking funds from academic pursuits. As stated earlier, only 23 programs in NCAA Division I can claim this type of success (Berkowitz, Upton, & Brady, 2013). The more conventional type of success is simply winning, but there are many ways to measure this metric as well.

**Measures of Success in College Athletics**

For twenty years, the Learfield Sports Directors’ Cup has been the most widespread and respected measure of overall athletic department success. The philosophy of the Directors’ Cups seeks to reward, “A program that honors institutions maintaining a broad-based program, achieving success in many sports, both men's and women's, in which all
sports that the NCAA, NAIA or NJCAA offers a championship, along with Division IA football, and all student-athletes that compete in those sports, are treated equally.” (Learfield Sports, 2013, para. 2).

In 2010, the Capital One Cup was established as a competition that splits results and standings into male and female sports and does not weight success in all sports equally. Group A consists of cross country water polo, skiing, rifle, indoor track and field, wrestling, fencing, swimming and diving, ice hockey, gymnastics, volleyball, tennis, rowing, field hockey, and bowling. Any points accumulated by these sports (through a top ten finish) are worth one-third of the points accumulated by group B. Group B includes higher profile sports, soccer, football (FCS), football (FBS), volleyball, basketball, lacrosse, outdoor track and field, softball, and baseball. (Capital One)

Because the Directors’ cup has been in existence longer and offers a more egalitarian look at overall athletic department success, it has been featured more in research and used as the measure of competitive achievement when measuring efficiency. One study by Huffman, Mirabito, and Spencer (2013) attempted to examine athletic success and efficiency by using Directors’ Cup results and athletic department expenditures. Each metric was collected and aggregated over seven academic years, from 2003-2004 to 2010-2011 and a linear regression analysis was run for the dependent and independent variables. The dependent variable, Directors’ Cup scores, was the measure of athletic success and return, and was calculated by taking Directors’ Cup points per student-athlete per year. Similarly, the independent variable and measure of investment, athletic department expenses, was taken over the same seven years and calculated per student-athlete per year. Financial aid costs were taken out of athletic department expenses so as not to skew the results with the wide variance in tuition
and cost of living expenses. Duplicate participants were also taken out, meaning student-athletes who could be “counted” more than once for participating in similar but technically separate sports such as indoor track and field, outdoor track and field, and cross country. Chung (2013) found that a positive relationship between athletic department expenditures and Directors’ Cup points existed on all three levels of NCAA Division I competition identified for this study; Division I without football (commonly referred to as DI-AAA), Football Championship Subdivision (FCS), and Football Bowl Subdivision (FBS). The most variance in Directors’ Cup points based on athletic department expenditure existed at the FBS level with the least variance existing at DI-AAA. The researchers concluded that increasing expenses per student-athlete at the FBS level is more important in attaining Directors’ Cup points than either the FCS or DI-AAA level, which suggests less exploitation. In all subdivisions, there existed diminishing returns on investment, meaning that each successive Directors’ Cup point became more and more expensive.

**Efficiency and ROI Studies in College Athletics**

Another study, done by Kramer (2013) for Winthrop Intelligence (WIN AD), also measured athletic department efficiency using Directors’ Cup points as a measure of success. For this study Kramer took only the data from the most recent year it was available (2011-2013) for all of NCAA Division I and “used a quadratic form to plot performance on the Directors’ Cup by total athletic expenditures.” (Kramer, Measuring Athletic Departmentmental Efficiency, 2013) Similar to Huffman, Mirabito, and Spencer (2013), Kramer found a diminishing return that becomes more pronounced and severe in the top tenth percentile of spending.
Kramer (2013) also measured efficiency by conference, calculating the marginal cost for each Directors’ Cup point on average. For the conferences measured, the Pacific 12 Conference was the most efficient at $104,800 per point while the non-automatic qualifying Mid-American Conference was more than triple that cost at $380,300 per point. Kramer (2013) continued to delve deeper and calculated the average technical efficiency for FBS conferences using data from 2008 to 2011 in order to account for abnormally unsuccessful and successful years. Average technical efficiency is defined by Kramer (2013, para. 19) as “the effective with which a given set of inputs is used to produce an output. A firm is said to be technically efficient if a firm is producing the maximum out from the minimum quantity of inputs.” Kramer (2013) accounted for conference membership, sport sponsorship, institution type and support, and athletic resource allocation when determining technical efficiency and found the Big 10 Conference to have the highest technical efficiency, followed by the Pacific 12 Conference, Southeastern Conference, Big 12 Conference, Sun Belt Conference, and Atlantic Coast Conference. The Mid-American Conference had the lowest technical efficiency.

A new approach is taken by Kramer (2013) after he asserts that the Directors’ Cup isn’t the best measure of efficiency because its scoring system treats all sports equally. He states that a truer measure of efficiency would take into account “organizational priorities with resource allocations.” (Kramer, Measuring Athletic Departmentmental Efficiency, 2013) With this theory, Kramer (2013) takes the operational budgets for the 2011-2012 academic year of the two most heavily weighted (greatest portion of the budget) sports, football and men’s basketball, and clusters the remaining sports into a their own category to calculate a score directly proportionate to dollars spent.
While no two schools are the same with their allocation (University of Texas football comprises 18.6% of their budget while The Ohio State University football comprises 23.07%), this approach allows for the unique priorities of an athletic department to be taken into account. (Kramer, Measuring Athletic Department Efficiency, 2013) For example, the University of Kentucky has twice the average weight for men’s basketball (14.55%) compared to their peer institutions in the FBS.

When this adjusted rank is applied, drastic changes do not occur. Stanford University and The Ohio State University remain in the top two spots for 2011, but Penn State University and the University of Arizona both gained nine spots and appeared in the top ten along with other minor movements, including Texas A&M University and Florida State University dropping out of the top ten. (Kramer, Measuring Athletic Department Efficiency, 2013) Kramer (2013) concludes a few important findings from his study: there is a diminishing return for Directors’ Cup points but the effort to maintain a top performing athletic department may be worth the cost, institutions in the automatic qualifying conferences have a higher average technical efficiency than non-automatic qualifying institutions, targeted expenditure categories has the largest impact on athletic efficiency, the adjusted Directors’ Cup score shifts the advantage of having a broad based model to rewarding sports with the largest amount of institutional investment.

Since 2009, the Laboratory for the Study of Intercollegiate Athletics at Texas A&M University has published the Excellence in Management Cup, intended to measure “the most economically efficient athletic department in the FBS.” (Texas A&M Laboratory for the Study of Intercollegiate Athletics, 2013) The Excellence in Management uses conference and
national championships as their measure of success with national championships being worth six times more than conference championships. Please refer to figure one in the appendices.

The champion for the 2012-2013 academic year was the University of Colorado, which placed 56th in the 2012-2013 Directors’ Cup final standing. However, this score is not a measure of athletic success, but is intended to “bring awareness to NCAA athletic departments that are maximizing fiscal resources leading to championship victories.” (Texas A&M Laboratory for the Study of Intercollegiate Athletics, 2013) By using conference and national championship measures, this report does not allow for degrees of success and can have a wide variation from year to year. There is validity to using final conference and national standings (as the Directors’ Cup does), but using this all or nothing approach does not allow for the results to give a complete picture of economic efficiency.

Conclusion

With the rapid growth of collegiate athletics and the immense pressure on administrators to succeed, it is important that educated decisions are made regarding the allocation of revenue. A specific output is desired when an investment is made and with no two collegiate athletic departments being the same and each having a different set of goals, definitions of success, and priorities, it is important to address the critical issues of efficiency and ROI from multiple angles. This study will look at collegiate athletic success through broad based and narrow focused program, revenue and non-revenue sport programs, and male and female sport programs to determine the difference in efficiency and ROI for each.
Chapter 3
METHODOLOGY

For this study, Learfield Directors’ Cup and U.S. Department of Education Equity in Athletics Data Analysis Financial Data Analysis (EADA) were collected for the most recent five years (2006-2011) that were available. Learfield Directors’ Cup includes scores of individual sports for each year over the five years for each institution and total. EADA financial includes operational expenditures for each sport for each of the five years along non sport-specific operational costs and total expenses.

For each institution in the five automatic-qualifying, “AQ”, conferences the total will be aggregated and averaged out over the five years. For the EADA dataset, financial aid expenses will be taken out as this varies widely with each institution and is outside of the control of the athletic department. For the purpose of the study this category is not considered part of operational costs.

The initial simple linear regression will be run with the average total operational costs and Learfield Directors’ Cup score. More regressions will be run with more specific data sets. These include the broadly-based athletic departments, narrowly-based athletic departments, revenue sport programs, non-revenue sport programs, male sport programs, and female sport programs. Each regression will separate the Learfield Directors’ Cup scores and
EADA data in order to make derive information for these more specific populations in order to compare them to each other and the overall dataset.

Once all regressions have been run, the results will allow the analysis of efficiency and return on investment of these athletic departments individually and collectively. The regressions run with more specific, comparative datasets will also allow for more specific findings.
Chapter 4

MANUSCRIPT

Introduction

College athletics has long inspired great passion, emotion, and personal investment from those who participate, administer, and follow it closely. This popularity has contributed to its continuing evolution. Despite its intended fit under the umbrella of the university, National Collegiate Athletic Association (NCAA) Division I athletic programs have often drawn a great deal more attention than any other part of the institution, and as a result scholars have recognized this phenomenon and used the phrase “front porch” (Shulman & Bowen, 2001), referring to the athletic department, to describe it. This attention has not come without scrutiny, particularly recently as more specific aspects of college athletics have entered the public conscience.

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The purpose of this study was to analyze the efficiency and return on investment based on athletic success that Bowl Championship Series, Automatic-Qualifying conference institutions (n=65) athletic departments are attaining. By in large, these are the most successful and highest spending athletic departments that receive the most media coverage and have the largest fan bases. Therefore, they theoretically have the most at stake. In addition, the resources they have access to are so much greater than the rest of NCAA Division I, that it warrants a study to look at schools on this tier alone. The following research questions were created to guide the research:

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**Current Financial Landscape of College Athletics**

Expenses and revenues in college athletics are growing at an alarming rate, often outpacing increases in spending in comparable areas of their institution (Desrochers, 2013, p. 2). This fact is evident by the grandiose facilities being built at schools across the country. Amenities like this and ever increasing expenses and revenues have led to several commissioned studies analyzing the reasons behind ethics and the results of rapidly growing
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counterparts, the “have nots.” The highest quartile of FBS athletic departments spent nearly $150,000 on each student athlete compared to $51,532 at the lowest quartile (Knight Commission on Intercollegiate Athletics, 2012).

Often times, “have nots” are forced to rely on their institutions’ general funds for support. At the lowest quartile of FBS, institutional support makes up approximately half of the budget for the athletic department (Knight Commission on Intercollegiate Athletics, 2012). With athletic spending per student being four to eleven times more than academic spending per student and greater pressure placed on institutions to subsidize athletics, it is important for administrators to know how far their money is going and how to spend it efficiently.

It is not only the athletic department and institution that provide revenue for the increasing expenses. Student fees are an important funding mechanism used by institutions to subsidize a wide range of causes and athletic departments are often given priority support. While athletic departments in the top two quartiles of athletic budgets (ranging from $45 million to $130 million) typically have lower student fees and less institutional support, the remaining smaller athletic departments are much more reliant on both. (Desrochers, 2013, p. 9) In the lowest quartile, student fees make up 31% and institutional support makes up 31.8% of a median budget of $17 million as opposed to 2% and 1.9%, respectively for the highest quartile. This equates to an average approximate subsidization of $10.7 million for the lowest quartile and $4 million for the highest.

Derochers (2013) concludes that Division I athletic departments and institutions “reexamine their game plans.” (p. 11) It is clear on the balance sheet that Division I athletics are not profitable for the vast majority of schools. According to Derochers (2013), “Fewer
than one in four of the 97 public FBS athletic departments generated more money than they spent in any given year between 2005 and 2010” (p. 10).

It’s also evident that institutions at least perceive that they are receiving other benefits by supporting Division I athletic programs. As stated, very few are profitable and almost none are able to give any back to academic programs, save for wealthy schools receiving huge amounts of revenue from ticket sales, donations, and media rights, such as Louisiana State University, who agreed to give $36 million to academics over a five-year period. (Associated Press, 2012) Derochers (2013, p. 11) asserts that “athletic programs, particularly successful ones, can serve as advertising vehicles, boosting exposure and prestige.” However, it is difficult to prove these benefits, let alone quantify their value.

Success in collegiate athletics appears to pay huge dividends for the university not only monetarily, but also by providing exposure that is unrivaled. The potential for this type of payoff from athletic success has led to the rapid financial growth (athletic spending per student-athlete up 51% from 2005-2010) in college athletics (Desrochers, 2013, p. 5). However, there are 340 Division I institutions (120 in the FBS) (NCAA, 2013) and not every single one can experience this type of competitive success, or even moderate success each year in the high profile, revenue driving sports (football and men’s basketball). Overall financial success is even rarer, with only 23 Division I programs being self-sustaining, or able to operate off of their own generated revenues (Berkowitz, Upton, & Brady, 2013). The remaining institutions require institutional, state, and student fee subsidies to operate and attempt to compete. In addition, subsidies rose by $200 million between 2011-2012, the largest increase since the 2004-2005 fiscal year (Berkowitz, Upton, & Brady, 2013).
Further adding to this challenge is the current state of higher education in America, which is still recovering from the recession. This economic downturn has not left the endowments, budgets, and donations of institutions of higher learning untouched with “hiring freezes, construction projects put on hold, and tuition hikes in resulting from a cut in costs affecting almost every part of the institutions.” (Zimbalist, 2011, p. 5) But as Zimbalist (2011, p. 5) points out, “Athletics spending continues to be on the rise.” Budgets continue to rise and a record number of institutions are attempting to move from Division II to Division I, with a large chunk targeting the Football Championship Subdivision (FCS) and the more competitive and potentially more profitable FBS, calling for more resources to pay for the fees, additional scholarships, and increases in the operating budget in order to compete (Winthrop Intelligence, 2013).

With the amount of investment and emphasis put into collegiate athletics at the Division I level, it is important to know the return they are getting on their investment. Zimbalist (2001) realized the importance of this over a decade ago as it relates to the approach of collegiate athletics administrators. “Many college administrators now however acknowledge that collegiate athletics is a business venture, and the universities are more and more likely to justify their investment in athletics programs by appealing to the economic benefits that those programs allegedly provide to the university” (Zimbalist, 2001, p. 152). With the pressure to succeed on the field combined with the need for that success to lead to financial gains and the other benefits previously discussed, collegiate administrators at the Division I level need to define what success means to them individually and the institution, and what types of investments are needed to reach that success. Ultimately, this can be influenced by the makeup of the athletic department, the numbers of sports it offers, its
inherent strengths and weaknesses, and the strategic decisions made by leaders within the organization.

**Broadly-Based and Narrowly-focused Focused Athletic Programs**

Athletic departments can have very different approaches to achieving success based on the number of programs they offer. For example, the University of Virginia sponsors 25 sports while Iowa State University only sponsors 16. Both are BCS programs in one of the five largest conferences, but have chosen to allocate their resources in different ways. The University of Virginia has what is commonly referred to as a “broadly-based” athletic program, meaning that it offers a large amount of sports and participation opportunities compared to the NCAA minimum of 16 sports for a Division I institution (National Collegiate Athletic Association, 2013).

The fact that an institution has a broadly-based program can be the result of many factors, including tradition, sustained success, adequate funding, and commitment to offering more opportunities to student athletes. The conflict between supporting a broadly-based program and focusing more intently on fewer sports is summarized by Southall, Nagel, Amis, & Southall (2008): “Provide relatively fewer participation opportunities to maximize the amount of resource allocation to teams and participants…Provide relatively larger participation opportunities to maximize students’ involvement in intercollegiate athletics.”

Success in collegiate athletics can be measured in several different ways. An athletic department that is self-sustaining and even profitable is a form of success in itself as that program can avoid any criticism that they are taking funds from academic pursuits. As stated earlier, only 23 programs in NCAA Division I can claim this type of success (Berkowitz,
Upton, & Brady, 2013). The more conventional type of success is simply winning, but there are many ways to measure this metric as well.

**Measures of Success in College Athletics**

For twenty years, the Learfield Sports Directors’ Cup has been the most widespread and respected measure of overall athletic department success. The philosophy of the Directors’ Cups seeks to reward, “A program that honors institutions maintaining a broadly-based program, achieving success in many sports, both men's and women's, in which all sports that the NCAA, NAIA or NJCAA offers a championship, along with Division IA football, and all student-athletes that compete in those sports, are treated equally” (Learfield Sports, 2013, para. 2). Sport programs are rewarded for postseason competition participation and success on both a team and individual basis, depending on sport. Only the top ten performing sport programs (if that many score) are counted towards the end year total for athletic departments, meaning that broadly-based programs do not have the potential to score more points than narrowly-focused athletic departments.

In 2010, the Capital One Cup was established as a competition that splits results and standings into male and female sports and does not weight success in all sports equally. Group A consists of cross country water polo, skiing, rifle, indoor track and field, wrestling, fencing, swimming and diving, ice hockey, gymnastics, volleyball, tennis, rowing, field hockey, and bowling. Any points accumulated by these sports (through a top ten finish) are worth one-third of the points accumulated by group B. Group B includes higher profile sports, soccer, football (FCS), football (FBS), volleyball, basketball, lacrosse, outdoor track and field, softball, and baseball (Capital One).
Because the Directors’ cup has been in existence longer and offers a more egalitarian look at overall athletic department success, it has been featured more in research and used as the measure of competitive achievement when measuring efficiency. One study by Huffman, Mirabito, and Spencer (2013) attempted to examine athletic success and efficiency by using Directors’ Cup results and athletic department expenditures. Each metric was collected and aggregated over seven academic years, from 2003-2004 to 2010-2011 and a linear regression analysis was run for the dependent and independent variables. The dependent variable, Directors’ Cup scores, was the measure of athletic success and return, and was calculated by taking Directors’ Cup points per student-athlete per year. Similarly, the independent variable and measure of investment, athletic department expenses, was taken over the same seven years and calculated per student-athlete per year. Financial aid costs were taken out of athletic department expenses so as not to skew the results with the wide variance in tuition and cost of living expenses. Duplicate participants were also taken out, meaning student-athletes who could be “counted” more than once for participating in similar but technically separate sports such as indoor track and field, outdoor track and field, and cross country.

Chung (2013) found that a positive relationship between athletic department expenditures and Directors’ Cup points existed on all three levels of NCAA Division I competition identified for this study; Division I without football (commonly referred to as DI-AAA), Football Championship Subdivision (FCS), and Football Bowl Subdivision (FBS). The most variance in Directors’ Cup points based on athletic department expenditure existed at the FBS level with the least variance existing at DI-AAA. The researchers concluded that increasing expenses per student-athlete at the FBS level is more important in attaining Directors’ Cup points than either the FCS or DI-AAA level, which suggests less exploitation.
In all subdivisions, there existed diminishing returns on investment, meaning that each successive Directors’ Cup point became more and more expensive.

**Efficiency and ROI Studies in College Athletics**

Another study, done by Kramer (2013) for Winthrop Intelligence (WIN AD), also measured athletic department efficiency using Directors’ Cup points as a measure of success. For this study Kramer took only the data from the most recent year it was available (2011-2013) for all of NCAA Division I and “used a quadratic form to plot performance on the Directors’ Cup by total athletic expenditures.” (Kramer, Measuring Athletic Departmental Efficiency, 2013) Similar to Huffman, Mirabito, and Spencer (2013), Kramer found a diminishing return that becomes more pronounced and severe in the top tenth percentile of spending.

Kramer (2013) also measured efficiency by conference, calculating the marginal cost for each Directors’ Cup point on average. For the conferences measured, the Pacific 12 Conference was the most efficient at $104,800 per point while the non-automatic qualifying Mid-American Conference was more than triple that cost at $380,300 per point. Kramer (2013) continued to delve deeper and calculated the average technical efficiency for FBS conferences using data from 2008 to 2011 in order to account for abnormally unsuccessful and successful years. Average technical efficiency is defined by Kramer (2013, para. 19) as “the effective with which a given set of inputs is used to produce an output. A firm is said to be technically efficient if a firm is producing the maximum out from the minimum quantity of inputs.” Kramer (2013) accounted for conference membership, sport sponsorship, institution type and support, and athletic resource allocation when determining technical efficiency and found the Big 10 Conference to have the highest technical efficiency, followed
by the Pacific 12 Conference, Southeastern Conference, Big 12 Conference, Sun Belt Conference, and Atlantic Coast Conference. The Mid-American Conference had the lowest technical efficiency.

A new approach is taken by Kramer (2013) after he asserts that the Directors’ Cup isn’t the best measure of efficiency because its scoring system treats all sports equally. He states that a truer measure of efficiency would take into account “organizational priorities with resource allocations.” (Kramer, Measuring Athletic Departmental Efficiency, 2013) With this theory, Kramer (2013) takes the operational budgets for the 2011-2012 academic year of the two most heavily weighted (greatest portion of the budget) sports, football and men’s basketball, and clusters the remaining sports into a their own category to calculate a score directly proportionate to dollars spent.

While no two schools are the same with their allocation (University of Texas football comprises 18.6% of their budget while The Ohio State University football comprises 23.07%), this approach allows for the unique priorities of an athletic department to be taken into account. (Kramer, Measuring Athletic Departmental Efficiency, 2013) For example, the University of Kentucky has twice the average weight for men’s basketball (14.55%) compared to their peer institutions in the FBS.

When this adjusted rank is applied, drastic changes do not occur. Stanford University and The Ohio State University remain in the top two spots for 2011, but Penn State University and the University of Arizona both gained nine spots and appeared in the top ten along with other minor movements, including Texas A&M University and Florida State University dropping out of the top ten. (Kramer, Measuring Athletic Departmental Efficiency, 2013) Kramer (2013) concludes a few important findings from his study: there is
a diminishing return for Directors’ Cup points but the effort to maintain a top performing athletic department may be worth the cost, institutions in the automatic qualifying conferences have a higher average technical efficiency than non-automatic qualifying institutions, targeted expenditure categories has the largest impact on athletic efficiency and he adjusted Directors’ Cup score shifts the advantage of having a broadly-based model to rewarding sports with the largest amount of institutional investment.

With the rapid growth of collegiate athletics and the immense pressure on administrators to succeed, it is important that educated decisions are made regarding the allocation of revenue. A specific output is desired when an investment is made and with no two collegiate athletic departments being the same and each having a different set of goals, definitions of success, and priorities, it is important to address the critical issues of efficiency and ROI from multiple angles. This study will look at collegiate athletic success through broadly-based and narrowly-focused focused program, revenue and non-revenue sport programs, and male and female sport programs to determine the difference in efficiency and ROI for each.

**Methodology**

This study analyzed the financial information and competitive success for institutions in the Atlantic Coast Conference, Big 10 Conference, Big 12 Conference, Pacific 12 Conference, and Southeastern Conference. Also known as the “Power 5”, these institutions have by and large the most successful and well-funded athletic departments. Revenues and expenses are far higher at this level of college athletics and the exposure and profile of student-athletes and athletic programs also makes this a high-stakes endeavor unique to these
65 institutions. This study sought to compare “apples-to-apples” and the findings apply almost exclusively to the institutions on this plane of intercollegiate athletics.

**Data Collection**

For this study, Learfield Directors’ Cup and U.S. Department of Education Equity in Athletics Data Analysis Financial Data Analysis (EADA) were collected for the most recent five academic years (2008-2009 through 2012-2013) that were available. The data collected from the Learfield Directors’ Cup included total and individual scores for the entire institution and individual sports for each of the five academic years. This data was aggregated and averaged out over five years.

EADA financial includes operational expenditures for each sport for each of the five years along non sport-specific operational costs and total expenses. There was a small amount of differentiation in financial reporting among the institutions which required adjustments. Often times, institutions would report both men’s and women’s cross country, indoor track and field, and outdoor track and field in one pool of expenses, making it necessary to apply this to all institutions for these sports and combine Learfield Directors’ Cup points as well. The same process was repeated for men’s and women’s swimming and diving. In addition, each institution reported a significant amount of funds in the “unallocated funds” category that they did not assign to a specific sport program. This category was included in the total expenses category as it was still deemed an important part of the equation when considering total investment in athletic success.

**Statistical Procedures**

A simple linear regression was run with the average total operational costs and average Learfield Directors’ Cup score. Additional regressions using subsets of the data
were run for comparative purposes. These subsets included revenue sport programs (football and men’s basketball) and non-revenue sport programs (all other sport programs) and men’s sport programs and women’s sport programs. For the last comparative regression subset, the institutions were split into three groups based on the number of sport programs they sponsored and assigned a corresponding philosophy. Athletic departments that sponsored between 16-19 sports were labelled “narrowly-focused” (n=23). While departments sponsoring 20-22 and 23-34 programs were neutral (n=20) and broadly-based (n=22), respectively. In each regression analysis, the average expenses served as the independent variable while the average Learfield Directors’ Cup points were the dependent variable. For the statistical procedures, the final budget numbers were divided by 1,000 to attain more readable results. This was implemented on every regression run.

Results

For all simple linear regressions run there were several important and significant findings with implications for practitioners. Statistical significance was the first result examined, identifying whether expenses meaningfully affected the competitive results. The adjusted R-square was also useful, determining the percentage of variance that is explained by the independent variable, the budget. In other words, this identifies how impactful expenses are to attaining competitive success. Finally, B was examined, which provided the amount directors cup points bought with each unit increase in the independent variable (expenses). Simply put, this reports how many Learfield Directors’ cup points (if any), on average, come with each $1,000 spent. Each of these results varied between sample groups and provided impactful and revealing information.
Average Total Expenses and Average Total Learfield Directors’ Cup Points

Average budgets from 2008-2009 to 2012-2013 for the 65 institutions ranged from $39 million at Utah to $124 million at Texas while the leader in Learfield Directors’ Cup points was Stanford with 1444.65 points with Rutgers on the low end with 134.8 points. There was a significant effect for this test, meaning that as predicted, expenses impact success. There was a 45.5% correlation between the expenses and success, leaving more than half of success attributable to other factors. Learfield Directors’ Cup points proved to be expensive with $1,000 buying you one hundredth of a point (0.011) on average. Please refer to figure two in the appendices.

Men’s Sport Programs vs. Women’s Sport Programs

Men’s sport program expenses ranged from $18 million (Utah) to $50 million (Texas) and women’s from $6 million (Oklahoma State) to $20.5 million (Wisconsin). The highest Men’s Learfield Directors’ Cup point total was 712.25 (Stanford) and lowest was 54.2 (Utah). The highest total for women was 89.61 (Stanford) and lowest was 20.566 (Pittsburgh).

Findings were equally significant for both men’s and women’s sport programs when examining efficiency and return on investment. However, a few key differences were evident. Money spent appears to be more impactful for women’s programs, with the adjusted R-square at 35.7% compared to 30.1% for men’s programs. Results also showed that men’s program points were more costly, with $1,000 spent resulting in 0.011 points as opposed to 0.034 Learfield Directors’ Cup points for women’s programs. While this seems to be small difference, men’s program points are nearly three times as expensive, and when extrapolated
out for the millions of dollars spent, it is very significant. Please refer to figures three and four in the appendices.

**Revenue Sport Programs vs. Non-Revenue Sport Programs**

The highest average total expenses for revenue sport programs (football and men’s basketball) was $40.5 million (Auburn) and the lowest was $15.8 million (Utah). Fewer resources were invested in non-revenue sports (all other sport programs) with the most being $34.7 million (Ohio State) and lowest $9.4 million (Colorado). The highest Learfield Directors’ Cup point total for revenue sport programs was 128.1 (Alabama) and lowest was 0 (Washington State). The lowest point total for non-revenue sport programs was 85.626 (Pittsburgh) and highest was 1,523.66 (Stanford).

Revenue sport programs and non-revenue sport programs both reported significant findings with key differences existing as well. Revenue sport programs were much less impacted by expenses with 25.4% of the relative success explained by expenses and on average only 0.003 Learfield Directors’ Cup points bought with $1,000. Non-revenue sports appeared to be more influenced by financial investment with 43% of the variance in points attributed to the budget and 0.035 or slightly more than one-third of a Learfield Directors’ Cup point per $1,000 spent on average. Please refer to figures five and six in the appendices.

**Narrowly-Focused vs. Neutral vs. Broadly-Based**

The lowest total average expenses for narrowly-focused, neutral, and broadly-based sport programs were, respectively, $39 million (Utah), $57 million (Virginia Tech), and $56 million (NC State). Highest expenses in the same order were $78 million (Arkansas), $124 million (Texas), and $110 million (Ohio State). Lowest Learfield Directors’ Cup point totals for narrowly-focused, neutral, and broadly based sport programs were, respectively, 143.9
(Washington State), 475.5 (TCU), and 134.8 (Rutgers). Highest point totals in the same order were 790.7 (Oregon), 1,250.8 (Florida), and 1,444.65 (Stanford).

Although findings were significant for all three philosophies, it was more pronounced in some. The P-value was 0.001 for broadly-based, 0.007 for neutral, and 0.032 for narrowly focused. A similar pattern was followed for the adjusted R-square, with the results being 41%, 28.6%, and 17.9% for broadly-based, neutral, and narrowly focused, respectively, meaning that the percentage of total expenditures associated with success is lower for institutions sponsoring less sport programs. Learfield Directors’ Cup points per $1,000 were the lowest at 0.006 for neutral, with almost identical scores for broadly-based (0.012) and narrowly-focused (0.011). Please refer to figures seven, eight, and nine in the appendices.

Discussion

Summary

The purpose of this study was to determine the return on investment and efficiency of athletic departments (n=65) in the highest level of college athletics, the “Power 5” conferences. This study was meant to assist athletic administrators when making decisions regarding investments in their programs, adding and cutting sports, and all other matters dealing with resource allocation. The study is also intended to give a clear view of not only the overall financial investment and return (based on overall competitive success), but also the return on specific subsets of these athletic departments (men’s and women’s sport programs and revenue and non-revenue sport programs). Also examined are three different philosophies (narrowly-focused, neutral, and broadly-based) that address different models and approaches in allocating resources.
Overall, each regression ran resulted in a significant finding, meaning that the amount of money invested in programs have a direct effect on their success. When looking at athletic departments as a whole without subsets, data shows that on average, 45.5% of success is explained by expenses. This leaves room for other factors to have a strong influence, including tradition, past success, quality of coaching, and many more. However, as a general rule, if you’re spending with the best, you’re half of the way to having one of the most successful athletic departments in the country. This type of investment is rare, however with only 23 Division I programs being self-sustaining or able to operate off of their own generated revenues, a sign of financial superiority (Berkowitz, Upton, & Brady, 2013). Most athletic departments must exploit other strengths more and excel at frugal and strategic financial management as their margin for error is low.

The measure of success, the Learfield Directors’ Cup honors the achievement of all sports in an egalitarian nature. These cherished points are not easy to come by, costing on average, nearly $100,000 per point. Huffman, Mirabito, and Spencer (2013) find in their study, a diminishing return on investment occurs as budgets reach a certain point. At this critical point, other factors become very important. Figure 1 provides a visual for this marginal return on investment. As budgets approach $90 million, the return becomes increasingly marginal.

It was very evident from the data that far more resources are invested in men’s sport programs compared to women’s. In addition to the potential to generate more revenue, men’s sports generally receive more media coverage, spectators, and overall attention that the athletic department and institution cherish. According to Derochers (2013, p. 11), “Athletic
programs, particularly successful ones, can serve as advertising vehicles, boosting exposure and prestige.’”

This increased investment in men’s sport programs is evident in the results of the regression. Both men’s and women’s sport program success is significantly affected by the amount of resource invested, but 35.7% of the variance in Learfield Directors’ cup scores are influenced by expenses in women’s program, as opposed to 30.1% for men’s. Also each successive thousand dollar spent buys, on average, 0.011 Learfield Directors’ Cup points for men’s programs and three times that amount (0.034) for women’s sport programs. As mentioned before, once millions of dollars are spent, this can make a hugely significant difference. Figure 3 actually shows a steady climb in Learfield Directors’ Cup for women’s sport programs points followed by a dip with the largest budgets.

Equally as evident as the gulf in spending between men’s and women’s sport program was the disproportionately large investment in the two revenue sport programs (football and men’s basketball) compared to the rest. Only Stanford, Wisconsin, Michigan, Texas A&M, and Arizona reported spending more on their non-revenue sport programs. This study does not assert that this practice is wrong, but this observation clearly helps to explain the priorities of athletic departments at this level.

Ironically, results show that the variance in Directors’ Cup points explained by expenditures is only 25.4% for non-revenue sport programs, compared with 43.1% for nonrevenue sport programs. Success in Learfield Directors’ Cup points is also immensely more difficult to come by as revenue sport program, with 0.003 points for every $1,000 spend as opposed to 0.035 points for non-revenue program. On average, Learfield Directors’ Cup points are over eleven times more expensive for revenue sport programs. The obvious
explanation is the radically larger budgets of the revenue sports. With every institution spending far more on these sports compared to others, Learfield Directors’ Cup points are naturally going to come at a much higher cost.

This cost may be worth the payoff institutions who have found success with their investment may say it’s worth every penny with the tangible and intangible benefits they receive for success in high profile sports. But if an athletic administrator is concerned with broad based success, investing those resources in another sport program or multiple other programs will most likely have a greater return on investment.

The last set of regressions run compared three different philosophies, narrowly-focused, neutral, and broadly-based. The purpose was to compare the efficiency and return on investment of institutions that sponsor many sport programs (22-34), those who elect to sponsor very few (16-19), and the programs that fall in between (20-21). The study does not assert that one is any better than another, but schools of thought exist on both sides of the argument. Those with many sports may argue that they provide more opportunities while institutions with fewer programs cite financial issues causing them to contain the number of sport programs they offer. Some narrowly focused schools, such as Florida, have enough resources to provide more sport programs, but elect not to and concentrate their resources on what they have.

The results show a significant finding for each philosophy, the strongest being broadly-based. The percentage of variance accounted for by expenses was more than twice as strong in broadly based programs (41.2% to 17.9%). The cost of Learfield Directors’ Cup points were almost identical between narrowly-focused and broadly-based programs, showing no real advantage to the argument that in general, concentrating resources into fewer
sport programs is more efficient. With financial resources having more impact in broadly-based programs, it does affirm that if you’re going to sponsor a lot of sports, then your budget will have a significant impact on their success.

**Limitations and Future Research**

This study was intended to provide information on efficiency and return on investment for institutions competing in the highest echelon of NCAA Division I intercollegiate athletics; therefore its findings are not applicable to the rest of the membership. As with most research focusing on finances of intercollegiate athletic departments, there is variation with how institutions report their expenses and revenues.

With this being the case, there is a small margin of error. Specifically, a category on the EADA report was “non-allocated expenses” that was a significant amount of each institutions’ budget. This category accounts for administrative support, facility cost, indirect expenses, and any other expense the institutions deemed non sport specific.

One aspect this study did not take into account was the priorities of an athletic department. The analysis was intended to provide a broad, general outlook of the relationship between resources allocated and competitive success. The study valued overall success more than success in a specific sport or group of sports. While priorities vary within each athletic department, most if not all would agree that a national championship or appearance in postseason competition in football and men’s basketball is more impactful and valuable than other sports. While the analysis did examine these two sport programs apart from the others, it did not treat their success any differently.

Future research that could add to these findings may take Kramer’s (2013) approach and attempt to weight the success based on the relative amount of resources allocated to a
specific sport program. In addition, splitting the data into more specific data sets, potentially individual sport programs may result in applicable data when administrators are looking for more precise information.

**Conclusion**

Without a doubt, the amount of financial resources greatly impacts the success that a NCAA Division I BCS institution can attain. Nearly 50% of the overall success of an athletic department can directly be attributed to total expenditures. However, this also shows that half of the equation for success is much less measureable. These other variables, which would include tradition, coaching quality, innovation of employees, and countless others, are unquestionably important, more abstract, and potentially more difficult to attain. Many institutions in this study buck the trend in both ways; underachieving and overachieving based on their resources.

Within the subsets of data, success in revenue sport programs proved to be more expensive due to their larger budgets. Spending the money to compete may only up the ante and does not guarantee success. Factors such as coaching, past success, and access to top recruits may be more vital in those programs. Correlation is stronger within non-revenue and women’s sport programs. The tendency may not be to allocate a lot of resources to them, but the return will be greater.

The comparison of philosophies showed almost the same amount of efficiency between narrowly focused, neutral, and broadly based programs. This study does not determine which philosophy is wrong or right, but does assert that focusing resources on fewer programs does not mean a greater return. If the resources are present, investing in a broadly based program is slightly more efficient.
This study serves as a strong base for examining efficiency and return on investment in athletic departments at this level. While the results give a general view, the potential is present for further studies to dig deeper and produce results for more specific decisions. Overall the results of this study can be useful to administrators looking for comparative data when allocating resources.
APPENDIX 1: EXCELLENCE IN MANAGEMENT CUP FORMULA

\[
EM_{\text{CUP SCORE}} = \left[ \left( 6 \times \frac{\text{NCAA CHAMPIONSHIPS}}{\# \text{ OF SPORTS OFFERED}} \right) + \frac{\text{CONFERENCE CHAMPIONSHIPS}}{\# \text{ OF SPORTS OFFERED}} \right]\]

\text{TOTAL ATHLETIC OPERATING EXPENSES}

***This formula is multiplied by 100,000,000 to make the total scores manageable***

APPENDIX 2: TOTAL ATHLETIC DEPT. EXPENDITURES AND LDC POINTS

Learfield Directors' Cup Performance by Average Total Athletic Expenditures (2008-2013)
APPENDIX 3: MEN’S EXPENDITURES AND POINTS

APPENDIX 4: WOMEN’S EXPENDITURES AND POINTS
APPENDIX 5: REVENUE EXPENDITURES AND POINTS

REVENUE SPORT PROGRAMS

APPENDIX 6: NON-REVENUE EXPENDITURES AND POINTS

NON-REVENUE SPORT PROGRAMS
APPENDIX 7: NARROWLY-FOCUSED EXPENDITURES AND POINTS

[Graph showing the relationship between total average Learfield Directors' Cup points and millions, with data points and a trend line for narrowly-focused expenditures.]

APPENDIX 8: NEUTRAL EXPENDITURES AND POINTS

[Graph showing the relationship between total average Learfield Directors' Cup points and millions, with data points and a trend line for neutral expenditures.]

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APPENDIX 9: BROADLY-BASED EXPENDITURES AND POINTS

![Graph showing relationship between Total Average Learfield Directors' Cup Points and Millions.](image-url)
REFERENCES


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