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The Institutional Factors that Affect the Academic and Financial Success of Mid-American Conference Schools

Abstract

Athletic departments and institutions are spending an increasing amount of money on athletics. They believe that increasing spending will meet their mission to improve student-athletes' academic success. However, the question arises, is the money being spent on athletics actually contributing to that goal? Secondary data was correlated to find the relationship between the institutional, academic, and financial factors. The results of this study found that the majority of these relationships were not significant meaning that these factors are not working together to meet that mission. Therefore, those institutions who participate in the athletic department arms races will not see an increase in quality of academics.

Document Type

Undergraduate Project

Professor's Name

Dr. Dane-Staples

Subject Categories

Sports Management

The Institutional Factors that Affect the Academic and Financial Success of Mid-American Conference

Schools

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The Institutional Factors that Affect the Academic and Financial Success of Mid-American Conference Schools

Once students have entered an institution of higher education, they may have a variety of expectations. Some are hoping to embrace their education and come out with a degree that will help them achieve long term success. Some are hoping that their personal growth and transformation during this time will lead to fulfillment of personal and professional goals. Those that participate in athletics have additional expectations and may have different priorities than non-athletes. The ability for institutions to effectively deliver on this variety of expectations is difficult. Therefore, depending on the student-athlete's goals and priorities it is important to know if and how the institution and athletic program will meet an individual's specific needs.

Aside from the athletic program which is often the first thought of a student-athlete, these individuals should take into consideration the institutional factors, such as the culture and the majors offered, as well as their own focus on academics, and the use of student's financial resources when choosing an institution. Those areas should be the same focuses for institutions and athletic departments: to provide the student-athletes the opportunity for academic excellence through the responsible use of financial resources. However, this is not always the case and not all of these parts of the college experience have been focused on equally. Past research has attempted to uncover an institution's ability to effectively meet institutional or athletic demands, but has not attempted to explore both demands together. This research sought to fill this gap in information.

This new knowledge will help college students and their families make educated decisions about which schools they choose and what they expect to get out of their college experience. If a student-athlete wants to be able to continue to participate in their sport while earning a quality education, they need to know if the institution's goals, standards, and spending tendencies are actually being utilized in a way that will lead to academic success. If the student-athlete wants to win a championship and be surrounded by the best players the department can recruit, that would also require the student-athlete to see how financial resources are being used to meet those goals. By having this knowledge, a student-athlete will be able to

come in prepared with knowledge to know what will fit their needs instead of being told by a coach that the institution is a perfect fit. What a coach or admissions tour guide may say could be true but it is important to go into a meeting or conversation with these individuals having more background knowledge so as not to be easily swayed or convinced to sign with an institution that does not focus on the student-athlete's personal objectives.

To bring these three focuses together, there was a great deal of literature that touched on each specific topic. To understand the variables that affect student-athletes, research was gathered starting with the broad concept of institutional factors. These factors included the type of institution, diversity, an institution's culture or environment, admissions selectivity, as well as how teachers and coaches influence student-athletes, and if major impacts student-athlete's success. Diving deeper into the specifics of academics, it is important to understand how success is measured. Graduation Success Rate (GSR) and Academic Progress Rate (APR) are often used to define which institutions are meeting the academic requirements. These benchmarks are often tied back to the institution, athletic department, and student-athletes through questions about how financial resources are spent in an effective manner to support this academic success. If the institution and its athletic department are follow is mission statements, financial resources should be used to support its end goal of student-athlete graduation.

After looking at the pieces, the institutional factors, academic benchmarks, and finances that go into successful student-athletes, it is important to note the influence and objectives of the governing body of college athletics, the National Collegiate Athletic Association. Past research focused on where this association has on been successful and where the NCAA is lacking in terms of how it uses its financial resources as well as how it measures student-athlete success. Even though the NCAA sets up these rules, how the institution interprets and meets these academic expectations vary. Therefore, it is important to understand the institution and how it its decisions impact the student-athletes.

Literature Review

Institutional Impacts on Student-Athletes

The choice of which higher education institution to attend is a major decision. Public and private schools alike claim to be the best choice for students and student-athletes. However, research into graduation rates of public and private institutions has consistently found that private colleges and universities have greater graduation rates (Pike & Graunke, 2015). The past research on this relationship has taken into account institutional and student characteristics for the class year, as well as the institution's total enrollment, and admissions selectivity (Pike & Graunke, 2015). However, it is important to note that large public and small regional universities are far more likely to draw a diverse student body including non-traditional students, minority groups, commuter, and lower income students, as well as first generation college student (Ferris, Finster, & McDonald, 2004). Even though this diversity shifts the graduation rates, it is an advantage to the learning environment.

Along with the diversity of the student body, the amount of student engagement should not be forgotten. According to the scores on the National Survey of Student Engagement, academic rigor and engagement is important and are positively linked to graduation rates (Pike & Graunke, 2015). A challenging and captivating learning experience will lead to long term success for the institution and students. This learning environment is affected by another institutional factor, an institution's climate or culture.

Institutional climate is described as the "attitudes, behaviors, and standards and practices of employees and students of an institution" which includes the "level of respect for individual and group needs, abilities, and potential" (Rankin & Reason, 2008, p. 264). What matters is student-athletes' perceptions of and their interactions with athletic personnel and academic personnel (Rankin, Merson, Garvey, Sorgen, Menon, Loya, & Oseguera, 2016). A negative climate however can interfere with academic success and the beneficial development of the students who attend the institution, whereas for students surrounded by a campus with a more positive and supportive climate, academic success is not hindered (Rankin et al., 2016). This means that the more professors are able to build a connection with their students and are prepared, available, and helpful; the greater the academic knowledge that students will gain in addition to critical thinking skills (Reason, Terenzini, & Domingo, 2006). Aside from just the

institution's atmosphere, the image of the institution is influential. Institutions that possess a valuable brand name, which offer both social and economic advantages once graduated, can make students more aware of the value of their degree and this can lead them to be more invested in their academics (Ferris, et al., 2004). This shows that in conjunction with the institution itself, the students the admissions department accept makes a difference.

The Admissions Department of an institution has a difficult job. It must select students that can succeed academically while ensuring diversity and opportunity for potential students. Admissions is often caught between "athletic or academic credentials in recruiting and admitting athletes who can compete at the Division I-A level of competition"; institutions often favor the athletic over an academic standard that is required (Ferris et al., 2004, p. 567). This means that the admissions departments do not always select students that meet the expectations or have the characteristics that match the institution in terms of the academic preparation required (Ferris et al., 2004). The reason for this lenience with potential student-athletes, is that athletic success and play-off opportunities are a marketing tool and can be a focal point for the institution so as to be able to recruit more students, not just student-athletes (Walker, 2015). The visibility of a winning team drums up awareness and conversation about the institution which can lead to more students and therefore greater revenue (Ferris et al., 2004). This could be considered utilizing student-athletes that should not be on campus to ensure winning teams (Ferris et al., 2004). However, "studies also have consistently found that selectivity of admissions is positively related to retention and graduation rates, even after accounting for differences in institutional control, mission, and size" (Pike & Graunke, 2015, p. 149). This research could mean that the student-athletes rise to the challenge of the academic standards or that the academic support systems in place may be helping their student-athletes make quality academic decisions and to ensure eligibility. Therefore, the characteristics of the students themselves greatly influence retention rates (Pike & Graunke, 2015). Although it is difficult to measure individual traits that lead to academic success, it is important to note that the students are ultimately who determine their academic success. Some Division I student-athletes stated "they are students first and do not need special treatment. Further, they expressed that their future and subsequent

job opportunities at the completion of their athletic career were important...” (Kulics, Kornspan, & Kretoivics, 2015, p. 6). However, even though student-athletes ultimately make their choices, the individuals who provided them with advice and support are very influential.

Those who support the student-athletes once they have been accepted and start attending the institution are the academic and athletic personnel that they come into contact with on a regular basis. Academic and athletic personnel both favorably influence student-athlete success however, which type of personnel has more influence depends on how much the student identifies as an athlete (Rankin, et al., 2016). For example, if a student identifies more as an athlete then the athletic personnel have a greater influence whereas for those who identify less as an athlete, they are more positively influenced by those in academics (Rankin, et al., 2016). Therefore, faculty can help student’s success in terms of academics and individual development as well as deciding career goals which can lead to overall satisfaction with the institution (Lamport, 1993, p. 10). Hazelbaker’s study found that a coach’s focus on academics was a key determinant in graduation rates (2015). If a coach puts academics first, then that is a positive involvement in the academic process for student-athlete success and retention but if a coach wants the specific sport to be ahead of academics, then a coach’s influence can harm to academic success (Hazelbaker, 2015). The focus on athletics or academics comes into play specifically when deciding a major.

The influences on what student-athletes choose as a major can depend on if the sport is a revenue-generating sports as well as the gender of the athlete. Research shows that male student-athletes choose a major with athletic eligibility in mind and are not opposed to taking summer courses because more male student-athletes stated that they were academically ineligible than female student-athletes (Kulics et al., 2015). Students reported that “sport studies, sport management/ industry, communications, physical education, recreation management, criminal justice, and business” were more athlete friendly for males whereas “sport management/industry, physical education, sport studies, business, communications, education and recreation management” were more friendly to female athletes (Kulics et al., 2015, p. 6). Women tend to believe that academics are more valuable than men (Kulics et al., 2015). However almost

84% of the student-athletes reported their interests, not athletic eligibility was the main reason for their choice in major (Kulics et al., 2015). When looking at revenue generating sports, those college athletes do not perform as well in academics when compared to non-revenue generating teams when measured by graduation rates (Comeaux, 2015). Athletes from revenue generating sports were more likely to be asked by a coach to switch to a different major and be declared ineligible due to percentage toward degree requirements, especially since they are not as likely to consult their advisor during the semester (Kulics et al., 2015). Therefore, there are many institutional and student factors that lead to academic success and when looking at how these varying factors lead to overall academic success, similar quantifiable means must be used.

Academic Success

Graduation Success Rate.

It is important when focusing on measuring academic success in research to utilize a common tool of measurement. For college athletics, measurements that are commonly used are Graduation Success Rate (GSR) and the Academic Progress Rate (APR).

Graduation Success Rate is calculated by accounting for:

“a six-year proportion of those student-athletes who were retained and graduated versus those who entered an institution on institutional aid. In addition to the student-athlete data in the graduation-rates data, the GSR accounts for student-athletes who transfer into an institution while discounting student-athletes who separate from the institution and would have been academically eligible to compete had they returned” (Chandler, 2014, pp. 21-22).

It is important to note that GSR includes transfers as well as individuals that leave the institution in good academic standing because the federal graduation rate does not include transfers in their calculation of graduation success rate (Brutlag Hosick, 2013). This measurement of graduation for both the GSR and the federal graduation rate (FGR) takes place over six years starting at the first-time of college enrollment (Brutlag Hosick, 2103). The focus of GSR is on student-athletes that receive athletically related financial aid and are full time students from the first year of their enrollment (Ferris et

al., 2004) However, even though GSR has value, there are some limitations to it in terms of measuring academic success.

The GSR does not provide a complete picture of student-athletes' academic success. Southall stated that,

“Since there is no comparable national-level GSR for the general student body, GSR and FGR data should not be reported simultaneously. To do so in press releases or dataset tables invites inappropriate comparisons and fosters confusion” (2015, p. 11).

The National Collegiate Athletic Association (NCAA) reported GSR is not 100 percent reliable because it is misleading in terms of “assessments of academic attainment among athletes” (Ferris, et al., 2004, p. 558). It does not help to specify what exactly students learned while in the classroom. An additional flaw is that GSR does not measure all student-athletes. GSR excludes those who are not on scholarship, those who are walk-on athletes, and those who may have received a scholarship later on in their academic career (Ferris et al., 2004). Also, there are other institutional factors that affect GSR. The size of the institution's population can have a major effect on graduation statistics. For example, if an institution has a small population and there is a small increase or decrease in the number of athletes counted, it can have a major impact on GSR (Ferris et al., 2004). It can also be hard to assess the degree of difficulty that different majors and institutions create for students (Ferris et al., 2004). In addition, the GSR does not detail if the student-athletes actually gained any knowledge while at the academic institution, it only states that that they were able to leave with a diploma (Comeaux, 2015). Aside from GSR, other methods can be used to measure academic success.

Other alternatives to measure academic success include the Adjusted Graduation Gap (AGG) and comparison between student cohorts. The AGG is calculated by taking the federal graduation rate and modifying it to include full-time students and the reported federal graduation rate for college student-athletes of Division I FBS football, men's and women's basketball, softball and baseball (Southall, Eckard, & Nagel, 2016). Even though the Adjusted Graduation Gap is an option, it makes assumptions pertaining to student-athlete academic pathways which leads to a speculative graduation gap instead of

counting the actual graduates (Southall, 2015). Therefore, even though this is another option to utilize to understand student-athletes' academic success it is not as valuable as GSR.

Another option could be expressing the student-athlete graduation rate relative to the university graduation rate. Ferris, Finster, & McDonald assert that the variance of the institutions makes it difficult to compare the GSR rate (2004). However, by comparing student-athletes GSR to that of their non-athlete counterpart, there is evidence that universities with higher graduation rates overall tend to have lower rates of completion for their student-athletes (Ferris et al., 2004). This was calculated by taking "the graduation-rate difference, which is the average athlete graduation rate minus the average student-cohort graduation rate" (Ferris et al., 2004, p. 563). Comparing student-athletes with their institutions' student cohort could be valuable because it explains how the students are succeeding in terms of their specific environment. Even though this comparison is beneficial, comparing student-athletes to non-athletes can be complicated especially when coaches give scholarships to walk-on athletes and this means that they must then be included in the student-athlete grouping (LaForge & Hodge, 2011). This type of assessment also requires having vast knowledge of each school's student body which can be difficult to quantify. Therefore, GSR is a better measure of academic success.

Aside from GSR, Chandler provides another example of a tool to use in measuring academic success. He states, "using a combination of these two (GSR & APR) metrics provides the strongest academic assessment of student-athletes at the present time" (Chandler, 2014, p. 25). It is important to account for academic success using two tools when one does not provide a complete picture.

Academic Progress Rate.

Aside from just considering GSR, it is necessary to include the Academic Progress Rate (APR). In 2005, the APR was a major part of the NCAA's proposal for academic improvement (Comeaux, 2015). APR focuses on athlete retention and eligibility and it is an indication of GSR (Comeaux, 2015). Therefore, APR is a tool to measure academic success for each academic term (Chandler, 2014). However, APR is calculated differently the GSR.

APR is created through a point system. A point can be earned by each student-athlete if they meet certain criteria; specifically, if they received financial aid for athletics, are “enrolled full time during the institution's fifth week or the university’s official census date, whichever is earlier,” and maintain academic eligibility (Castle, Ammon, & Barnes, 2015, p. 17). However, it is important to note that there are two exceptions for this standard: once, student-athletes may be exempt if they have graduated and have used all their athletic eligibility, or two, they were either enrolled for more than five years (more than ten semesters) (Castle et al., 2015). Then once the student-athlete meets the criteria and received a point, all student-athletes’ points are joined together to calculate the total points for each team (Chandler, 2014). “A team’s total points are divided by points possible and multiplied by 1,000 to produce the team’s APR” (Chandler, 2014, p. 19). APR is considered a more reliable account of student-athletes’ academic success in each sport for all the institutions because it takes into account “athletic eligibility, student retention, and graduation rates in the rate calculation” (Castle et al., 2015, p. 17). It is important to note, when comparing GSR and APR, a APR score of 925 (out of 1,000) it is close to a GSR of around 50 (Castle et al., 2015). Since the creation of APR, there have been some institutional changes that have occurred to ensure compliance.

Higher educational institutions focus on maintaining at least the minimum APR because if that is not met, there are some serious consequences. An example of the consequences due to not having an APR of 930 is the loss of scholarships (Chandler, 2014). The NCAA could take up to ten percent of a team’s scholarship every year if academic performance is not up to par (Castle et al., 2015). Then, if the lack of academic success continues, the NCAA can issue more sanctions which will become more severe if academic performance does not improve (Dohrn, & Reinhardt, 2014). There are also penalties if a school does not disclose its APR, for example, the NCAA would not allow that institution to participate in postseason competitions for the rest of that year (Castle et al., 2015). Not being able to participate in postseason would be very detrimental to an athletic department and the institution overall because it will not be able to have media coverage to receive the revenues and exposure that comes with postseason participation (Dohrn & Reinhardt, 2014). However, there are benefits of meeting the APR standards.

These benefits include recognition and the ability to continue to participate in postseason. Institutions received praise from the NCAA in the form of public recognition for higher APRs (Castle et al., 2015). According to Castle, Ammon & Barnes, who reached out to Division I football programs, 70 (63.1%) have focused their budget and resources on becoming compliant and 80 (72.1%) of athletic departments have redistributed some of their resources and budget to support their student-athletes academically (2015). Some athletic departments have even gone so far as to add additional buildings to allow for academic centers to bring advisors, tutors, and learning specialists together with access to new and up to date computer labs (Castle et al., 2015). This shows that the NCAA's proposal to increase the focus on academics has had an impact.

In addition to shifting the budget and creating spaces and structures to ensure educational support, Castle, Ammon, and Barnes looked at how APR affected recruiting in BCS and non-BCS conference schools (2015). The scholars found that there were no significant differences in the recruiting strategies of conference football programs when it came to students who might struggle academically because of APR (Castle et al., 2015). This could be indicative of the lower-performing teams in BCS conferences taking more chances with recruiting or possibly not being able to dedicate the same amount of resources to insure the same APR success as other institutions (Dohrn & Reinhardt, 2014). Nevertheless, even with the lack of change in recruitment, there has been an overall improvement because "ninety-two respondents (82.9%) indicated their football programs are graduating more student-athletes" (Castle et al., 2015, p. 24). Aside from considering how APR affects recruiting, transfers are a big part of the APR calculation.

Transfer enrollment and participation greatly effects an institution's APR. Thirty-two percent of the responding programs said that more transfers are coming in whereas 29.7% of the programs stated that more are leaving (Castle et al., 2015). Since transfers are a major piece of the APR calculation, there has been an adjustment in the APR calculation. It allows "student-athletes earning a 2.6 grade point average and meeting other academic requirements to transfer without an athletic program losing the retention point" (Castle et al., 2015, pp. 28-29). This is beneficial because it ensures that the school and students will not be at a disadvantage for any personal reasons that led a student-athlete to transfer.

Although APR is a complement to the GSR, it is important to note a few drawbacks. Seventy-one or 63.9% of the football programs that responded to the survey stated that they were somewhat less likely to recruit student-athletes that struggle academically (Castle et al., 2015). This could put those who have to work harder to be successful at academics at a disadvantage in gaining similar opportunities as other student-athletes. In addition, depending on the team's composition, APR requirements might have different effects. APR requirements are connected to scholarship athletes. This means that if the team is composed of more scholarship athletes, the coach will be more inclined to focus on meeting the APR requirements (Dohrn & Reinhardt, 2014). However, if the team is composed of more walk-on athletes that do not receive a scholarship, the coach might not be as concerned with APR requirements (Dohrn & Reinhardt, 2014). Then if the NCAA takes away scholarships because the institution does not meet the APR requirements, only scholarship athletes would be penalized and lose the financial support they need to ensure access to an education (Dohrn & Reinhardt, 2014). The impact of APR requirements on student-athletes is similar for institutions and their athletic departments.

Institutions are not being equally affected by the APR standards. Castle, Ammon, and Barnes stated that schools' policies may not have changed due to the introduction of the APR standards (2015). If an athletic department's success in terms of revenue and winning games has not been affected by a low APR then the requirements may not influence the institution's administrators in a revenue driven culture to make any changes (Dohrn & Reinhardt, 2014). Institutions could also have found a loophole in the regulations (Castle, et al., 2015). A possible-loop hole could be that some schools may be providing a large amount of independent studies courses specifically for student-athletes to ensuring a high enough APR (Thamel, 2011). However, APR is not the only academic eligibility requirement that has been implemented.

The NCAA proposed an additional step to APR to ensure academic success. This requirement is the "percentage toward degree standards" (Kulics et al., 2015, p. 1). These standards require that by the end of a student-athlete's second year of college at least 40% of their degree has to be finished and this percentage of completion increases each year so as to have 60% completed by the end of their third year

and by the fourth year 80% must be finished (Kulics et al., 2015). This attempts to prevent students from just taking easy classes to stay eligible. After taking into account the benefits and shortcomings of APR, it is a reliable measure of academic success. Therefore, at the current time, GSR and APR are the two most reliable tools to measure academic success.

In addition to the academic success of the student-athletes, it is important to understand the financial success of the athletic department that supports them on and off the field. Financial stability could potentially have an impact on the student-athletic success. How an institution utilizes its budget including its allocation to athletic department can affect the quality of education it provides.

Financial Success

Revenues.

Athletic Departments are funded in a variety of ways. “The range of operating revenues for Division 1 athletic programs runs the gamut from a low of \$3.5 million to a high of \$150 million” (Dunn, 2013, p. 45). These sources of funding include money from the state, revenue sharing within the NCAA, donations, and the institution’s budget.

When looking into how much financial support the state provides, there is a difference based on Division I participation. For example, Division I Football Bowl Subdivision (FBS) teams are given about 8% more financial support from their state legislature than similar universities that do not partake in DI (FBS) football (Walker, 2015). However, for universities with top 20 or bowl participating teams, state subsidiaries do not seem to be as varied (Walker, 2015). This shows that as long as institutions have a team and it has some success, there is financial support from the state. However, the drawback of relying on the state is that with increases in a state’s expenses due economic concerns there is less financial support for colleges (Cheslock & Knight, 2015). There are currently a number of problematic financial trends for state legislatures including the rising health-care costs, pension liabilities, and funding for other levels such as high school and elementary education (Cheslock & Knight, 2015). Higher education institutions may have to find different funding sources either through higher tuition and fees or outside sources (Cheslock & Knight, 2015). An increase in cost of education would be detrimental for potential

students because it could prevent those individuals from being able to attend due to the lack of financial means. Aside from just state subsidiaries, the NCAA does provide financial support for its members.

Funding for college athletics is not equal. This financial inequality comes from free-market forces that are involved in collegiate athletics including the NCAA, television broadcasting, and in the case of football, the Bowl Championship Series (BCS) (Lawrence, 2013). The NCAA alone makes about \$766 million from Division I men's basketball championship television and marketing rights (National Collegiate Athletic Association, 2014). These forces lead to inequalities that are then passed down through the conferences to colleges and universities, to the athletic programs, to specific sports, and finally to student-athletes (Lawrence, 2013). The issue with this current distribution system is that the NCAA favors institutions that win games because of the media rights (Lawrence, 2013). This leads the other conferences and institutions to spend and create an unsustainable arms race to develop better programs to win more games so as to receive more financial support (Lawrence, 2013). The NCAA has a revenue distribution plan for Division I that dictates how 62% of the television revenue is distributed to the conferences (Bush, 2014). The NCAA determines the percentage of revenue allocated to five funds: Academic Enhancement, Basketball, Grant-in-Aid, Student Assistance, and Sports Scholarship (Bush, 2014). A revenue distribution that favors equality would allow institutions that are lacking funds to have an increase in revenue. This would then enable programs to stop spending more and more resources to compete with other more well-funded programs. It would also allow for a decrease in an athletic department's reliance on institutional subsidies and student fees (Cheslock & Knight, 2015). An example of the focus on winning includes a Division I basketball team that won the NCAA tournament. Of the NCAA's revenue generated in 2011-2012,

“\$467 million was returned to the Division I membership based on the basketball fund (40%; \$184.1 million), scholarships (26%; \$122 million), sport sponsorship (13%; \$61.4 million), student-athlete opportunity fund (10%; \$46.5 million), academic enhancement (5%; \$23.4 million), special assistance fund (4%; 19.7 million); conference grants (2%; \$8.3 million), and supplemental support (<1%; \$1 million)” (Lawrence, 2013, p. 29).

From this example, it is valuable to note that 5% (about 23 million) was spent on academic enhancement. This is an incredibly small percentage to be spent on academics. It is also important to emphasize that this

amount of money that the institution and athletic department receives is not based on academic achievement because there is no reward system for this type of success (Lawrence, 2013). The system is flawed if the mission of the NCAA is to support academic success but such a small portion of the revenue is used to further education. However, aside from the NCAA and its revenue redistribution, athletic departments and academic institutions can be supported by other outside sources.

Outside groups, such as donors, are a major source of revenue for athletic departments. Large sums of money from external sources means that little is taken from student fees because subsidies and fan support including media cover the expenses (Cheslock & Knight, 2015). For the Division I athletic departments, having large donors as a source of revenue is key. In 2012, donors provided over \$31 billion to colleges and universities in the United States, which breaks down to 44% percent directly from individuals, 30% from foundations, while corporations provided 17% (Walker, 2015). These large donations are often rewarded. For example, premium seats are given to those individuals who provide the athletic departments with large amounts of money (Cheslock & Knight, 2015). This is a technique to get people to support the program. In return for donations, fans can receive benefits such as invites to banquets and receptions, recognition in the handouts, front row parking, and the opportunity to meet with players and coaches (Cheslock & Knight, 2015). However, of all the donors, the top 5% state that supporting education and activities aside from athletes are the reasons for their donation, they want to impact the greatest amount of people as possible (Walker, 2015). Although donors have a variety of reasons for donating, winning has some impact.

Aside from just getting donors to support the athletic department because of special opportunities or to enhance the experience of the student body, winning can lead to donations which is why the success of the team on the field has become extremely important. There is a positive relationship between an increase in overall institutional contributions from alumni and being in a bowl game for football or participating in the NCAA tournament for basketball (Walker, 2015). When a team wins a championship and in the years following the win, Division I athletics programs have had more potential student-athletes apply to the institution (Walker, 2015). Aside from more applications, those who were accepted had better

SAT scores than institutions that do not participate in DI sports (Walker, 2015). This is valuable to the institutions because then admissions can raise their standards for which students must meet to be accepted which increases the prestige of their school (Walker, 2015). For example, if an institution wins an additional 5 games then the school may benefit from an increase in alumni athletics donations by \$682,000 (28%) and potential student interest may rise by 677 (5%) (Walker, 2015). The number of students accepted by the institution may decrease by 1.5 percentage points, and the 25th percentile of SAT scores may rise by 9 points (1%) (Walker, 2015). From Walker's research, it is easy to see that winning and the financial benefit of this cycle can be hard to break. The more money, the better the coaches, and media attention; which draws in better players that succeed on the field and this leads to a better fan base, the more fans attending and spending money, the more overall revenues for the athletic department which then feeds the cycle (Cheslock & Knight, 2015). Lawrence's research showed, "From 2005 to 2008, the mean athletic spending per student-athlete at FBS schools increased from \$61,218 to \$84,446 while academic spending remained relatively flat, growing from \$11,079 to \$13,349 per student-athlete" (2013, p. 33). Often this financial support can create tension between the educational departments and athletics because aside from driving potential students to admissions, there is not much revenue sharing (Lawrence, 2015). In 2010, of the 120 Division I institutions athletic programs about 98 of those institutions were losing money where-as the median loss was about \$9.4 million (Walker, 2015). This lack of a balanced budget is concerning and demonstrates the conflict that often surrounds institution of higher learning and athletics because athletics drives interest but is not necessarily staying within budget or supporting the central mission of the college or university.

Expenses.

Aside from the importance of raising revenues, a major question is how those revenues are being spent. A majority of FBS presidents stated controlling the costs of athletics is a unique challenge because it is important not to upset major donors and supporters (Cheslock & Knight, 2015). Athletic department expenses include: "salaries, athletic scholarships, travel, recruiting, equipment, supplies, medicine, insurance, legal, public relations, office costs, capital expenditures, debt servicing, and maintenance"

(Frazier, 2016, p. 38) In some cases, athletic departments overspend which can happen due to the independence of the department. Most of individuals that approve expenses are those within the athletic department (Frazier, 2016). This intradepartmental decision-making on spending can lead to arms races which arise when rewards, such as revenue, depend upon the success of athletic teams (Cheslock & Knight, 2015). This focus on increasing success leads athletic departments to spend more either on higher salaries or to create better facilities to ensure that it's teams win games (Cheslock & Knight, 2015). Spending more of the budget seems plausible because no other collegiate activity draws as many students and alumni, motivates donors, attracts new students, or leads to name recognition as athletics (Dunn, 2013). However, the spending to become more competitive could have an overall negative impact.

This negative impact of the arms race is the little actual benefit it creates. Within an arms race, no school gains much of an advantage if every school in the division is spending to get ahead but there is great loss because the ability to use the revenue in other areas such as academics is gone (Cheslock & Knight, 2015). Therefore, it is necessary to focus on ways to curb excessive spending. If the NCAA were to regulate the number of additional personnel similarly to coaches then expenses could be reduced and recruiting ability would be more equal (Dunn, 2013). In *Law v. NCAA* (1998), assistant coaches won a settlement and an order ending the NCAA's \$16,000 limit on starting salaries which has led to the increase in compensation of assistant football coaches to \$ 1 million as well as an increase for coaches in non-revenue sports (Southall, 2015). In 2011, Texas, Ohio State, and Michigan all spent over \$110 million on athletics, which included pay their head football coaches above \$4 million per year, while maintaining the most expensive and luxurious athletic facilities (Cheslock & Knight, 2015). Frazier suggested another way to decrease spending through the use of economies of scale because "the average or unit costs decrease as the level of output increases within a given time period" (Frazier, 2016, p. 39). Frazier's study suggested that many athletic departments could decrease their average total cost per athlete if they increase the number of participants; however, there is a point to which adding participants will no longer decrease the cost (2016). It is important to calculate the cost minimizing point that will yield the maximum size of the athletic department. In Frazier's study, the goal was about 673 athletes

because adding more athletes would cause average total cost to increase (2016). Being aware of the maximum amount of participants that an athletic department can sustain will lead to a more balanced use of the budget. This could also be done by aligning better financial policies and procedures with missions of both the NCAA and the member academic institutions (Lawrence, 2013). The focus should be on

“enriching the lives of student-athletes, allowing them to compete at a high level, providing the support needed to become productive members of society, and readying them for careers that most likely will not include being professional athletes” (Lawrence, 2013, p. 40).

Balance is key so that the student-athletes will receive a well-rounded education and the athletic departments will be able to balance their budgets while fulfilling the mission of their institutions.

National Collegiate Athletic Association

Since the National Collegiate Athletic Association provides financial support for the athletic departments and regulates the academic standards of its members, it is important to understand the goals and background of this organization. The goal of the NCAA is “the pursuit of excellence in both academics and athletics” (National Athletic Association, n.d. a, para. 1). This organization focuses on “student-athlete success on the field, in the classroom, and in life” (Southall, 2014, p. 121). The emphasis on education stems from academic challenges within two specific sports. Football and basketball were struggling to attain academic success, specifically graduation rates were lacking, 76-92% of professional football and men’s basketball players lacked college degrees (Southall, 2014). A couple of NCAA and Olympic basketball players lobbied Congress to make the college and universities in the United States publish their student-athletes’ graduation rate so that future players would have an idea of their potential to graduate while playing a collegiate sport (Selingo, 2012). To ensure a positive brand image and bring the attention back to academics, the NCAA focused on a new definition of academic success which led to the academic progress requirements and GSR (Southall, 2014). This attention also came through in 1990 with “the Student-Right-to-Know and Campus Security Act requiring universities that receive federal funds to report graduation rates for all students, and more specifically to report separately the graduation rates for student-athletes” (LaForge & Hodge, 2011, p. 217). Over time, press releases from athletic departments or conference websites have consistently supported the new standards by saying “the GSR is

a more accurate and better measure that proves athletes are achieving academic success” (Southall, 2014, p. 127). In recent years, football and men’s basketball graduation rates have improved. Football players now graduate at a rate of 71 %, and basketball players at a rate of 73% which is a 17 percentage-point from 1995; of this overall increase, African American males’ graduation rates increased 22 percentage-points (Southall, 2015). However, even though going to an institution of higher education is about gaining additional knowledge, it is true that college athletics provides an additional dimension to many students’ college experience.

Mark Emmert, a former President of NCAA, focused on the benefits that NCAA provides. He stated that high school students who participate in athletics are more likely to go to college, be successful in college, find a job after college, and have a long term source of income (Southall, 2014). President Emmert personally pushed for more focus on education by securing the reinstatement of multiyear scholarships (Sack, 2012). The NCAA president stated that the NCAA provides opportunity for first generation students (Southall, 2014). In addition to first generation students, many other students would not be able to attend college without the support of the NCAA (“Amateurism and the future”, 2013). Sports bring together people that have different backgrounds, the student-athletes learn to stay fit and healthy in times of stress and struggle, all while managing many different commitments which helps improves time management skills (Southall, 2015). More than 460,000 student-athletes at 1,084 institutions are competing for all three divisions in 23 different sports under the NCAA umbrella (Southall, 2015). Since the institutions provides undergraduate athletic scholarships, the NCAA states their organization provides support through NCAA financial aid programs, for example the “NCAA Division I Student-Athlete Opportunity Fund” (National Collegiate Athletic Association, n.d. b, para. 3). In addition to these financial aid programs, many student-athletes utilize the student assistance funds for emergency or other documented needs which is covered by the NCAA and supervised by the conferences (Southall, 2015). However, even with all of these positive attributes of the NCAA, it is important to point out the shortcomings as well as additional information about the organization.

Aside from the money it gives to scholarship, the NCAA brings in a great deal of additional revenue. The NCAA makes large sums of money off of final games and March Madness; however, as stated above a majority of it does not go to education advancement (Southall, 2014). Therefore, there is support for the argument that the NCAA has focused on increasing the graduation rates to convince student-athletes and their parents that “the business of college sports is not a necessary evil, [but] a proper part of the overall enterprise” (Southall, 2014, p. 130). This idea is enhanced by the fact that student-athletes are not allowed to receive financial support outside of scholarships for their athletic talents and this can put some student-athletes in a difficult spot financially. The NCAA states that student-athletes are not able to receive payment for their athletic participation for a few reasons. First, if athletes were paid, it would negatively affect college athletics ability to maintain a competitive balance (Santesteban & Leffler, 2017). If these restrictions were not in place, the NCAA believes that only certain programs would have the resources to recruit and pay the best athletes and therefore would take home the championship titles each year (Santesteban & Leffler, 2017). However, this argument is not realistic because the current budgets and revenue distributions are not similar to ensure a competitive balance (Santesteban & Leffler, 2017). In addition, the NCAA created the amateur rule so that college athletics is clearly separate from professional sports (“Amateurism and the future”, 2013). Student-athletes must maintain their amateur status to participate in intercollegiate athletics because the NCAA does not want student-athlete to be exploited by professional and commercial enterprises (Southall, 2015). Yet, the NCAA does not step in when some programs expect their athletes to spend 40 to 50 focused on improving their sport performance during the season which making it extremely difficult for success in the classroom (Lopiano & Gurney, 2014). This amount of commitment and focus on athletics does not seem to support the advertised goals of NCAA’s focus on amateurism or the institution’s focus on academics. The NCAA rules also end up making student-athletes very reliant on the NCAA and the academic institutions that provide them with the resources they need to receive a higher education while participating in their desired sport.

Purpose

The purpose of this research was to understand if there is a relationship between institutional factors, academic success, and financial success within the Mid-American Conference. This research helped fill the gap in knowledge for those within higher education as to any potential relationship between these aspects. This will allow those individuals to make more informed decisions as to how to they utilize their resources. To come to this understanding, a series of hypothesis were tested.

H₁: Of the twelve MAC schools' athletic departments, 25% will be financially successful in terms of revenues and expenses in the 2014-2015 fiscal year.

H₂: Of the twelve MAC schools 75% will be academically successful in terms of APR and GSR in the 2014-2015 academic year.

H₃: There will be no relationship between the institutional and academic results.

H₄: Institutions that spend a lower percentage on athletics will have a higher institutional net or a surplus.

H₅: There will be no relationship between the three focuses of this research, institutional factors, academics, and finances.

Previous research has focused on academic success in Division I institutions however there has been little focus on financial success and the connecting between academics, finances, and institutional factors which are all related but often conflicting aspects of higher education and athletics.

Method

General research descriptors

This research was exploratory because there was little prior knowledge connecting higher education institutions, academics and financial success (Jones, 2015). It was the beginning exploration that focused on gaining some familiarity with the concepts and looking for patterns that may arise (Jones, 2015). The approach utilized for this research was a post-positivist approach because there can be some control and replication among different conferences but an absolute true or false is not realistic (Jones, 2015). Therefore, it is important to be aware of researcher bias and looking for a completely correct or incorrect result (Jones, 2015). This research also involved secondary data collection. Secondary data can

come from preexisting archive data that may have been utilized by researchers for their own work but can be reanalyzed to answer other research questions (Jones, 2015). For this research, the data came from the specific websites which will be discussed below. This secondary data was gathered from a specific sample population.

Sample selection

The focus for this study was a Division I multisport conference (Wikimedia Foundation, Inc., 2016). Of the Division I multisport conferences, the sample that was selected for this study was the Mid-American Conference (MAC) which includes twelve public higher education institutions (National Collegiate Athletic Association, 2016b). The Mid-American Conference was created in 1946 and its current commissioner is Dr. Jon Steinbrecher (National Collegiate Athletic Association, 2016c). Since 1946, the MAC has grown at a constant pace and is now one of the most competitive Division I conferences in the country with its current headquarters in Columbus, Ohio (National Collegiate Athletic Association, 2016c). The MAC was founded as a league with five charter members: Ohio, Butler, Cincinnati, Wayne State, and Western Reserve (National Collegiate Athletic Association, 2016c). It now has 12 member universities located in five states: Illinois, Indiana, Michigan, New York, and Ohio (National Collegiate Athletic Association, 2016c). The first sport in the MAC was men's basketball and then in 1980 women's sports were added (National Collegiate Athletic Association, 2016c). The MAC has hosted the NCAA Division I Men's Basketball Midwest Regional and will host the 2018 NCAA Division I Wrestling Championships (National Collegiate Athletic Association, 2016c). The Mid-American Conference also stands out in a few other ways.

The MAC institutions have a quality record in terms of academic and financial standards. It is unique in the fact that all institutions that comprise the league utilize about the same amount of revenue to support their athletic programs (Dunn, 2013). The Mid-American Conference is the tenth most valuable conferences in 2016 with revenues of about \$2.2 million (Smith, 2016). However, it is important to note that all the Mid-American Conference schools are public institutions (Grove, 2016a). This means that the university's revenues are partially funded through state taxpayers (Grove, 2016b). As for the athletic

departments, an article published in 2011 touched on institutions that had a clean program, meaning that it had never been found to have committed a major NCAA violation, five of the seventeen clean programs are in the MAC (Dunn, 2013). Aside from some having clean programs, the MAC has made recent gains financially. A key contract was negotiated between the MAC and ESPN which solidified a continuation of their current contract for national television and digital distribution to the 2026-27 season (National Collegiate Athletic Association, 2016c). This deal is important because it could lead to more certain financial stability (National Collegiate Athletic Association, 2016c). The MAC also has had some noteworthy successes in academics.

Academics is not forgotten in the MAC. All members have notable academic programs even though the admissions criteria are varied (Grove, 2016a). In the Mid-American Conference, the institutions provide about six individuals who support their student-athletes with academics (Dunn, 2013). Also, the “National Football Foundation and College Hall of Fame named 25 MAC students as members of the 2016 Hampshire Honor Society, which recognizes college football players that maintained a 3.20 GPA or better throughout their college career” (National Collegiate Athletic Association, 2016c, para. 20). The specific institutions of the MAC include twelve institutions which are divided into two different divisions.

There are six institutions in the East Division: University of Akron, Bowling Green State University, The State University of New York at Buffalo, Kent State University, Miami University, and Ohio University (National Colligate Athletic Association, 2016b). In addition to the East Division, there are six institutions in the West Division: Ball State University, Central Michigan University, Eastern Michigan University, Northern Illinois University, University of Toledo, Western Michigan University (National Colligate Athletic Association, 2016b). These twelve institutions are the focus of this study.

The Mid-American Conference was selected because it had not been studied with a focus on the relationships between institutional, academic, and financial factors. The MAC is a small conference which decreased confounding variables. In addition, as MAC schools are all public, the financial statements were available which allowed for a closer look at how the financial aspect of running an

institution and athletic department plays into academic success. In addition to these reasons, a journal article by scholar John Dunn referenced the MAC and this solidified the conference as the sample for this research. Dunn's article focused on practical suggestions to help level out the collegiate playing field in Division I athletics (2013). He mentioned the successes of the MAC teams as well as the reasonable amount of resources the conference uses (Dunn, 2013). Due to these successes and parameters, the MAC provided an ideal sample to test the relationships between the institutional factors, academic success, and financial success.

Variable Operationalization

This research focused on three different groups of variables for the 2014-2015 academic and fiscal year. The first group of variables that were collected were institutional variables such as the number of student-athletes, and the total student body so as to find a student-athlete to student body ratio. Then the financial variables were collected including the athletic department budget and the institutions' total assets and total liability. Then total assets and liabilities were netted together and a ratio was found between the athletic department budget and the institutions' net amount. In addition to this financial variable, a range of revenues and expenses were gathered and include: total salaries, athletically related student aid, recruiting expenses, operating expenses, total expenses for teams, total revenues for teams, and the total revenues-total expenses for team (U.S Department of Education, 2015). Aside from the revenues and expenses that were evaluated, APR and GSR for the twelve schools were collected to measure academic success (U.S Department of Education, 2015). The institutional factors, the revenues and expenses, as well as APR and GSR were numerical values. These variables used a ratio scale because there is an absolute zero and the order of the data mattered (Jones, 2015). These variables were used to measure institutional factors as they relate to academic and financial success.

Operational Definitions

When measuring the success of two different categories such as academic and financial success for higher educational institution, it is important to create a definition of success. Academic success is defined as meeting the NCAA's requirements for eligibility after which penalties start. The current APR

benchmark after which penalties begin, is an APR of 930 and this often leads to a GSR of about 50 percent (National Collegiate Athletic Association, 2016a). These rates mean that students-athletes are on track toward graduating or the institution is graduating most of its athletes. For this research, financial success is defined as sustainability, or raising enough money to cover the costs to deliver an organizations' programs and services (National Council of Nonprofits, 2016). This means that financial success is considered breaking-even after providing the services that its mission describes. In terms of athletic departments, this means providing opportunities for student-athletes to compete in inter-collegiate games while covering the cost of those expenses.

Data Collection Instrument and Process

To find out if the institutions were private or public, information was gathered from each of the institutions' websites and from Allen Grove's article on the Mid-American Conference (2016a). The total institutional assets and liabilities data was collected from each institution's financial statements on each of their websites. The other financial information, athletic budget, total salaries, athletically related student aid, recruiting expenses, operating expenses, total team expenses, and total revenues for the teams for each of the twelve schools was compiled from the Equality in Athletics Data Analysis (EADA) website (U.S Department of Education, 2015). This website also provided the number for the total amount student-athlete participation and total full-time undergraduate amount (U.S Department of Education, 2015). Then the academic information, APR & GSR, were collected from NCAA's Academic Progress Rate page and GSR Search page (NCAA, 2016, a & b). Once these individual values were gather, some additional information was manually calculated. This included, the netted institutional column of total assets and total liabilities and then the total of salaries, athletically related student aid, recruiting expenses and operating expenses. Finally, the ratios of the athletic budget and the netted institutions' assets and liabilities, as well as the ratio between the total student-athlete participation and total student body were calculated.

This information was then inputted into an Excel spreadsheet. The Excel spreadsheet was set up with columns labeled: name of institution, type of institution, athlete budget, institutional assets,

institutional liabilities, institutional net, athletic/institution ratio, total salaries, athletically related student aid, recruiting expenses, operating expenses, total (of salaries, athletically related student aid, recruiting expenses, and operating expenses), total expenses for teams, total revenues for teams, the total revenues-total expenses for teams, APR, GSR, total student-athlete participation, and total student body, and finally athlete/body ratio. Down the first row was the name of each institution. Within the Excel chart, there was the specific data relating to the schools and the specific columns above.

Data analysis plan

After the data was assembled and put into Excel, the data was collectively transferred into the program Statistical Package for the Social Science for Windows (SPSS). In SPSS, variables and the scale of measurement were added to the data (Jones, 2015). The data was then analyzed using statistical analysis. First, descriptive statistics such as minimum and maximum, mean, and standard deviation were calculated for each of the selected variables (Fizel, & Fairbank, 2016; Soebbing, Wicker, & Watanabe, 2016). Then inferential statistics, focusing on correlation was determined (Ferris, et al., 2004). This type of statistical analysis focused on the relationships between institutional factors and academic success and financial success.

In order to test the first hypothesis, total revenues and total expenses for the team were found and that data was netted together to see if the amount was zero or higher. The second hypothesis compared the APR and GSR for each institution to the benchmark of 930 for APR and 50 for GSR. To find out if there was a relationship between the institutional and academic results, the percentage of overall institutional budget spend on athletics was correlated with APR and GSR. The fourth hypothesis compared the athletic budget to institutional budget ratio with the netted assets and liabilities through a correlation test. Finally, three different comparisons were used to determine if a relationship existed between institutional factors, academics, and finances. First, the institutions' netted assets and liabilities, athletic total revenues-total expenses, APR, and athletic participation amount were analyzed using correlation analysis. Then the institutions' netted assets and liabilities, athletic total revenues-total expenses, GSR, and athletic

participation amount were analyzed using correlation analysis. Lastly, athletic total revenues-total expenses, APR, GSR, and athletic participation amount were analyzed using correlation analysis.

Following those tests, APR and GSR were independently analyzed with each of the listed financial variables: total salaries, athletically related student aid, recruiting expenses, operating expenses, total expenses of salaries, student aid, recruiting, and operating, as well as total team expenses and total team revenues. APR and GSR were also correlated individually with student-athlete participation. Each of these tests were using correlation analysis with a p-value of .1. This significance level was focusing on just one tail because the sample size was so small. Also, since each athletic department and student-athlete population was meeting the basic requirements it was important to look at the upper tail to see which variables had a more significant relationship.

Results

This research focused on the relationship between institutional, academic, and financial variables. When looking at the descriptive statistics, a few stood out. To provide additional context for those numbers and which institutions had those scores, the institution's name will follow the numerical value. For the athletic budget, the minimum was \$16,169,208.00 (Kent State University), the mean was \$18,921,040.17 and the maximum was \$240,53,962 (Miami University) (see Table 1). As for the net institutional budget, the minimum was -\$1,877,717,000.00 (State University of New York at Buffalo), the mean was \$245,487,677.70, and the maximum was \$973,673,819.00 (Miami University). In terms of the comparative spread, the institution's liabilities had a larger amount of variation than the institutional assets. In terms of comparing the athletic budget variation to that of the institution's assets and liabilities, it was much less (see Table 1). As for the ratio between the athletic budget and institutional budget, the minimum was -1.02 (State University of New York at Buffalo), the mean was 5.35, and the maximum was 12.97 (University of Akron). Looking at the total revenues minus the total expenses or profits for the athletic departments, the minimum was 0, the mean was \$104,967.83, and the maximum was \$1,194,022.00 (Kent State University). As for the variation between specific athletic department revenues and expenses, salaries and operating had very similar variation of about \$650,000.00. Whereas the

amount of money spent on recruiting expense had a much smaller variation of only about \$96,000.00. The totals for the teams in terms of other categories of revenues and expenses had much larger amount of variations (see Table. 1). Taking into consideration the APR and GSR scores, the minimum, mean, and maximum for APR were 976 (Central Michigan University), 981.83, and 986 (Miami University & Ohio University). GSR had a minimum score of 73 (Ball State University), with a mean score of 81.17, and a maximum score of 87 (Northern Illinois University). There was very little variation between these APR and GSR scores. As for the rest of the descriptive statistics as well as the total profit, APR, and GSR for each institution see Table 1 and 2 in the Appendix.

As for the inferential statistics, there were three significant relationships. The first two was between APR and athletic participation which was $r=.780$ and GSR and athletic participation which was $r=.871$ (all significant $p<.1$). The third was between APR and total team revenue which was $r=.516$ ($p<.1$). As for the rest of the correlation test, there were no significant relationships. However, there were interesting patterns that were worth noting about the negative correlations between some variables even though the relationships were not significant. First, was the negative correlation between APR and total coaches' salaries which was $r=-0.365$ ($p<.1$) as well as GSR and total coaches' salaries which was $r=-0.126$ ($p<.1$), and finally between APR and the budget ratio which was $r=-0.004$ ($p<.1$) (see Table 3). For additional correlations and significant relationships between APR, GSR, and the financial variables, see Table 3.

Discussion

The expected results of this research were based on the research gathered for the literature review. However, there is no specific research on how these factors relate to and effect each other in the context of a specific conference. Therefore, it was important to bring together these variables and analyze them through the lens of a particular conference. Through additional analyzing of the institutional, academic, and financial variables, the hypotheses were tested. These hypotheses were:

H₁: Of the twelve MAC schools' athletic departments, 25% would be financially successful in terms of revenues and expenses in the 2014-2015 fiscal year.

H₂: Of the twelve MAC schools, 75% would be academically successful in terms of APR and GSR in the 2014-2015 academic year.

H₃: There would be no relationship between the institutional and academic results.

H₄: Institutions that spend a lower percentage on athletics would have a higher institutional net or a surplus.

H₅: There would be no relationship between the three focuses of this research, institutional factors, academics, and finances.

Each hypothesis shed light on a valuable relationship that could help higher education institutions meet their goals and stay true to their vision.

Institutional Success

Focusing first on finances, all the institutions' athletic departments in the MAC had revenues that were either equal to or greater than its expenses, which can be seen in Table 2. This means that the first hypothesis is supported because all the institutions met that benchmark of breaking even or making a profit. From this finding, it can be concluded that the athletic departments are managing their departments' spending. This finding is contradictory to the prior literature which focuses on institutions participating in unsustainable arms races (Lawrence, 2013). However, the result of this study could mean that the institution ends up covering any deficit so as to ensure that the department breaks even. This is a plausible explanation for the result because eight of the twelve institutions only broke even; if more athletic departments were making a profit this might not be as reasonable.

Also, each institution had an APR of 976 or above and a GSR of 73 or above. Therefore, the second hypothesis that 75% of the institutions would be at or above the NCAA benchmark of 930 for APR and 50 for GSR, was supported. All of the institutions surpassed those benchmark scores. Most of the institutions were even higher than 976 and 73, with scores in the 980s and in the 80s. In terms of APR, this means that the majority of institutions' student-athletes are making adequate progress within their degree requirements and are on track toward graduating (Kulics et al., 2015). As for GSR, these higher scores mean that student-athletes, including transfers, are being retained by and graduating from

the institution (Chandler, 2014, pp. 21-22). This also means that the institutions will not have to worry about penalties and loss of scholarships because the APR and GSR scores are well above the requirements (National Collegiate Athletic Association, 2016a).

Interactions Between Institutional Variables

Hypothesis three predicted there would be no relationship between institutional and academic results and this was supported for almost all variables (see Table 3). When first looking at APR, only one correlation was strong (APR*Student-Athlete Participation $r=.780$) and four could be considered moderate relationships (APR correlated with: total team revenue $r=.516$; total team expenses $r=.447$; athletic budget $r=.447$; and athletic student aid $r=.239$). Despite these relationships, only the student athletic participation ($p<.05$) and total team revenue ($p<.01$) were statistically significant meaning they are likely to be found within other populations. The significant correlation between total team revenues and APR could mean that the more revenue the athletic department makes the more the APR scores will improve. This result could also mean if the athletic department has more money coming from donors or government funding to cover its expenses, then the institution will not have to use its financial resources to cover the athletic department's deficit (Cheslock & Knight, 2015). The institution's resources can be put to better use improving academics which will in turn improve the APR and GSR scores.

However, it is important to note this was not the same for GSR. There is no significant positive correlation between GSR and total team revenues, $r=.311$ ($p<.1$). Therefore, to ensure a balance between the two academic measures, athletic departments should take increasing revenues into considering only up to the point where it does not start having an effect on GSR.

When comparing this same institutional factors to GSR there was only one correlation that was strong (GSR*Student-Athlete Participation $r=.871$, $p<.1$). There were no other statistically significant relationships or even moderately significant relationships. Therefore, just like with APR, the institution's spending on the athletic budget does not affect the student-athlete GSR scores. This strengthens the prior literature that the only student-athletes themselves and their experiences have any effect on or lead to these academic scores (Rankin et al., 2016).

Some existing literature indicated that overall institutional budget problems are a symptom of overspending in athletics (Lawrence, 2015). However, when testing this theory for this population, this was unsupported. The correlation between athletic to institutional budget ratio and institutional net was only $r=.222$ which was not significant at the $p<.1$ level. This means that the amount the institution puts into its athletic budget does not affect the institution's ability to stay in the black.

The final hypothesis was that there would be no relationship between the three focuses of this research, institutional factors, academics, and finances. The results supported this hypothesis because there were no significant pair-wise correlations between these variables with a $p<.1$. The only institutional factor that had any significant relationship with APR and GSR was athlete-participation which is easily explained based on the APR and GSR calculations (Southall, 2015). This means that of all the variables the institutions' try to control and change to ensure quality scores for academic requirements, only the student-athletes themselves have any effect. This might lead coaches and athlete personnel to push for more money to be able to recruit quality students but further research would go against this suggestion. Looking more closely at the relationships between the money spent on recruiting and the academic variables (APR*recruiting $r=.287$ and GSR*recruiting $r=.153$, $p<.1$), the data analysis shows that there were no significant relationships. This means that even if a coach believes that they can spend more money recruiting to get student-athletes that perform better in the classroom, their belief would be incorrect. This result supports prior research because some Division I institutions were not changing their recruiting strategies with the implementation of the APR requirements (Castle et al., 2015). These other institutions may have realized the fact that there is not a significant relationship between these variables which is why they did not change their recruiting habits.

In addition to these specific hypotheses, it was valuable to look at how academics related to other individual athletic department expenses, specifically total coaches' salaries. This analysis was important because prior research focused on the increasing amounts of coaches' salaries (Cheslock & Knight, 2015). In this study, the result was a negative correlation between coaches' salaries and the academic variables. APR and total coaches' salaries had a negative correlation of $r=-.365$ ($p<.1$) and GSR and total coaches'

salaries was $r = -.126$ ($p < .1$). This means that as athletic departments spend more money on coaches' salaries, academic success actually decreases. This could be because as their salaries rise, coaches feel greater pressure to earn more money and keep the program successful by win games; this in turn leads to less of a focus on the student-athlete's success in the classroom (Cheslock & Knight, 2015). Also, with a large amount of resources is being spent on coaches less is being spent on the academic success of their student-athletes. These findings are important because they will help institutional and athletic department decision makers be informed about the impact of their resource allocation. This will also help students first consider what they expect in terms of resource allocation and academic success and use that to make an informed decision about which institution to attend.

Limitations and Future Research

When collecting and analyzing this data, there were a few limitations that are important to note. First, when collecting the data, some of the financial statements were broken out between the institution and its foundation, others were not. Therefore, the total assets and total liabilities of the institution were collected excluding the amount of the institution's foundations to the best of the researcher's ability. It is important to note as well that the numerical data for the variables that were collected can only be as accurate as the websites portrayed them. Also, based on the findings of these study, it would be inaccurate to compare these results to other conferences. This is because the MAC is such a small sample size. It is too hard to project the results of this study on a larger population such as the other conferences and the data inferred that there would be no predictive value in doing so. The MAC is also very different from other conferences due to its geography, competition, and conference distribution. However, to increase accuracy of the financial variables, the location, specifically each state should be taken into consideration because each state has a different budget. Depending on how healthy a state's budget is affects its ability to support higher education institutions' financially. The financial variables were narrowed to be reasonable for this research.

Although this research and results were valuable for the MAC and its institution's, since the findings are not transferable to other conferences and to all higher education institutions and athletic

budgets as a whole, further research should be conducted. There is still a gap in knowledge as to whether or not there is a relationship or a predictive model that could be found for other conferences. Therefore, future research could focus on these same variables within a different larger conference to see how the results compare to the MAC. Also, future research could dig deeper into the relationship between institutional, academic, and financial variables for a specific sport. This would allow the researcher to bring specifics about the student-athletes into the study because it would not be too broad as this study was when considering all the different sports and their athletes. Future research could also look at the limitations of this paper more closely to see how state budgets, state taxes, and the conference distributions as additional financial variables are related to institutional variables and academics. This future research, depending on its results could provide more concrete data for decreasing the arms race that so many athletic departments have started to engage in.

Conclusion

This research is significant because it can help educate stakeholders of higher education. These stakeholders include, student-athletes and their family, professors, institutional administrators, and athletic department personnel. Student-athletes and families can take this information and decide if the MAC institutions fit their needs and goals in terms of academic support and standards before attending. Administrators within the MAC can better understand where to spend its financial resources. So far athletic departments have been covering their expenses however since these financial variables do not have a significant connection to academics, spending more money will not lead to higher APR and GSR scores. Therefore, if institutions currently spend a large amount on its athletic expenses, the administrators may decide to redirect their funds to areas of academics that need more support. This information will help administrators explain to their athletic departments why they may change the funding habits of the institution. As for the athletic department, this research may help the coaches and athletic administration realize that paying coaches high salaries may not lead to the results that they are seeking. It may also lead athletic departments to decrease their spending and slow the arms race that could be occurring at many institutions. Also, coaches will no longer be able to claim that more money for the

recruiting and operating portions of the budget will lead to greater academic success. These coaches will have to work to find other ways to improve academic success such as supporting tutors or class attendance.

These findings are important because they demonstrate how current financial reasoning is not as accurate as many wish. Now other questions can be asked to dig deeper into what variables actually have a significant impact on academic success so that the proper funds can be allocated to those variables. From this research, higher education institutions as well as their leaders and their athletic departments can start to shift their focus from ineffective funding to using financial resources to ensure academic success and positive growth of their student-athletes.

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Appendix

Table 1.

Descriptive Statistics

Variables	Minimum	Maximum	Mean	Standard Deviation
Athletic Budget	\$16,169,208.00	\$24,063,962.00	\$18,921,040.17	\$2,052,243.85
Institution's Assets	\$574,500,000.00	\$1,705,7862,000.00	\$2,458,143,336.00	\$4,616,104,512.00
Institution's Liabilities	\$276,368,948.00	\$18,935,579,000.00	\$2,212,655,659.00	\$5,274,591,581.00
Net Institutional Budget	-\$1,877,717,000.00	\$973,673,819.00	\$245,487,677.70	\$712,751,787.80
Athletic to Institutional Budget Ratio	-1.02	12.97	5.36	3.97
Total Salaries	\$3,861,590.00	\$6,139,111.00	\$4,423,308.50	\$667,438.47
Student Aid	\$5,127,086.00	\$10,011,741.00	\$7,161,203.33	\$1,250,797.16
Recruiting	\$356,385.00	\$690,875.00	\$486,191.17	\$96,032.87
Operating	\$2,703,166.00	\$4,558,329.00	\$3,630,616.50	\$633,669.49
Total of Student Aid plus Recruiting plus Operating	\$13,792,860.00	\$19,171,767.00	\$15,701,319.50	\$1,594,535.57
Total Team Expenses	\$16,169,208.00	\$24,063,962.00	\$18,921,040.17	\$2,052,243.85
Total Team Revenues	\$16,985,424.00	\$24,063,962.00	\$19,026,008.00	\$1,930,955.48
Total Revenues Minus Total Expenses	\$0	\$1,194,022.00	\$104,967.83	\$343,457.22

INSTITUTIONAL FACTORS

APR	976	986	981.83	2.95
GSR	73	87	81.17	3.76
Athlete Participation	1,053	1,070	1063	5.58
Student Body	12,699	18,539	15,331.83	2,109.02
Athlete to Student Ratio	5.76	8.39	7.05	0.97

Note: These variables were collected from each of the twelve MAC institutions.

Table 2.

Total Profit, APR, & GSR for MAC Institutions

Institution Name	Total Profit	APR	GSR
University of Akron, Ohio	\$0	981	78
Bowling Green State University, Ohio	\$1,400	981	85
The State University of New York at Buffalo, NY	\$0	980	78
Kent State University, Ohio	\$1,194,022	984	83
Miami University, Ohio	\$0	986	84
Ohio University, Ohio	\$0	986	83
Ball State University, Indiana	\$0	980	73
Central Michigan University, Michigan	\$0	976	79
Eastern Michigan University, Michigan	\$64,187	981	81
Northern Illinois University, Illinois	\$0	980	87
University of Toledo, Ohio	\$0	985	81
Western Michigan University, Michigan	\$5.00	982	82

Note: Total profit is total team revenues minus total team expenses. APR is out of 1,000 and GSR is out of 100. The benchmark for APR is 930 and for GSR is 50.

Table 3

Correlations of Academic and Financial Variables

	APR	GSR
APR	-	.371
GSR	.371	-
Athletic Budget	.447	.267
Net Institutional Budget	.261	.208
Budget Ratio	-0.004	.121
Total Salaries	-0.365	-0.126
Athletic Student Aid	.439	.103
Recruiting	.287	.153
Operating	.1	.141
Total of salaries, aid, recruiting, & operating	.249	.093
Total Team Expenses	.447	.267
Total Team Revenue	.516 ⁺	.311
Total Revenues minus Total Expenses	.227	.154
Student-Athlete Participation	.780 ⁺	.871 ⁺

Note: Table indicates Pearson correlation +p<.1 is one tailed.