The Role of Activity Based Accounting in Athletic Departments: Theory, Research Questions, and an Empirical Test

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Abstract

The unstable financial landscape of intercollegiate athletics is an issue that many institutions struggle with annually. Several researchers have proposed a solution to keep costs down that the NCAA and its members should consider adopting the Activity-Based Costing (ABC) finance and accounting practice to manage the financial information of athletic departments. Given that researchers suggest implementing ABC would benefit athletic departments, it is unknown what administrators think about this possibility. Therefore, the purpose of this study considered NCAA athletic administrators perspectives on whether or not the implementation of ABC would benefit athletic department financial practices to help administrators manage their costs more efficiently. Results from the current study demonstrated that a large percentage of participants do not use ABC. Participant's primary justification for not using ABC suggested that the data collected would not be beneficial for the current state of intercollegiate athletic departments.

Keywords: Activity-Based Costing, NCAA, Athletic Departments.

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Introduction

The unstable financial landscape of intercollegiate athletics is an issue that many colleges and universities struggle with on a yearly basis. Recently, the National Collegiate Athletic Association (NCAA) approved a cost of attendance stipend for student-athletes (Berkowitz & Kreighbaum, 2015), which will only make the financial landscape more uncertain for many institutions. Due to these financial concerns, many universities contemplate offsetting their financial woes through conference and even association reclassification for the opportunity to generate additional revenues with these financial issues likely to continue (Smith & Washington, 2015).

Athletic departments are often not self-sustaining as a majority of them take subsidies to offset operating costs. A 2016 study found that only 13 of the 230 NCAA Division I institutions studied were self-supporting and did not receive subsidies (Berkowitz et al., 2017). From this same list, Texas A&M University had the largest revenues of $194,388,450 with expenses of $137,101,774. Revenues and expenses vary across the NCAA with the bottom of this list showing Alabama A&M University revenues totaling $2,592,863 and expenses nearing the $10 million mark at $9,372,315 (Berkowitz et al., 2017). Discrepancies of revenues and expenses for many college athletic departments have been going on for decades. Several researchers have claimed that the financial troubles are due to the fiscal inequalities within intercollegiate athletics (Lawrence, 2013; Lawrence, Gariel, & Tuttle, 2010; Zimbalist, 2013). Although the primary position of the NCAA is to serve its members, conflicts arise when the NCAA attempts to generate similar revenues for its members. Lawrence (2013) explained this fundamental economic imbalance, "From a macro perspective, financial inequality in intercollegiate athletics stems from free-market forces influencing intercollegiate athletics, specifically the [NCAA], television broadcasting, and the Bowl Championship Series (BCS)" (p. 25). Lawrence goes on to suggest that these forces creep down to the conference members, and (now) student-athletes (i.e., cost of attendance stipends) and force conference commissioners to make decisions that put conference members in the best possible position financially (Lawrence, 2013). Appropriate decision-making efforts are critical for any financially based discussions among campus administrators. These decisions will not only affect the student-athletes on the campuses of these administrators, but may also affect many of the more than 460,000 NCAA student-athletes around the United States (Lawrence, 2013; NCAAa, 2017).

Research related to the welfare of intercollegiate athletics has focused on reforming efforts toward the governance of the NCAA (Lewinter, Weight, Osborne, & Brunner, 2013; Ridpath, 2013), commercialization (Benford, 2007; Bowen & Levin, 2011), and financial inequalities (Lawrence, 2013;

Zimbalist, 2013). It is the financial inequalities that often receive the most attention as the complexity of adjusting these inequalities becomes extremely difficult when dealing with more than 1000 NCAA members. "Financial inequalities in intercollegiate athletics will probably always exist. The focus moving forward should be closing the gap and simplifying distribution methods to benefit member institutions more equitably" (Lawrence, 2013, p. 39). Consequences of financial inequalities have been argued by scholars as a result of "shady accounting practices" (Humphreys, 2000, p. 488) or accounting practice inconsistencies, which can create a lack of transparency of financial information (Zimbalist, 1999). These financial inconsistences can then lead to college and university administrators making inconsistent decisions toward the well-being of the faculty, staff, general student body, and student-athletes (c.f., Lawrence et al., 2010; Lewinter et al., 2013; Pent, Grappendorf, & Henderson, 2007).

It was not until recently that methodological suggestions were made to aid in the improvement of intercollegiate financial inconsistencies. Specifically, Lawrence et al. (2010) proposed that the NCAA and its members consider adopting the Activity-Based Costing (ABC) management tool to manage the accounting and financial information accumulated by intercollegiate athletic departments. The ABC process is a regularly used management tool to help in the allocating of expenditures and to provide information on the proper usage of resources within an organization. ABC is primarily used in the manufacturing industry, but ABC has been previously used in other areas, such as higher education (Lawrence et al., 2010). By implementing ABC within intercollegiate athletics, Lawrence (2013) suggested that not only would accounting practices be standardized, but "a greater understanding of the cost of sport sponsorship could be achieved, more informed decisions about adding or eliminating sport programs can be made, issues of gender equity would be better understood" (p. 35). To date, there is limited research toward understanding the application of ABC within intercollegiate athletics departments. Exploratory research by Gabriel and Lawrence

(n. d.) applied the ABC model to one large NCAA Division I institution reviewing the reported expenses of an academic advising department. Their study recognized the ability of athletic departments to reallocate expenses to specific sport programs appropriately. This exploratory study not only exhibited the application of ABC, but demonstrated that institutions have the ability to improve the itemization of their expenses that "more accurately represent the real cost of sport sponsorship" (Gabriel & Lawrence, n. d.; Lawrence, 2013, p. 35).

The problem of financial inequities among intercollegiate athletics programs is clearly recognized among scholars and mainstream media. That being said, it appears that another perspective is missing. Athletic administrators of NCAA institutions lack specificity when discussing the broad financial inequity issues in intercollegiate athletics and the athletic accounting practices of their institutions. Given that Lawrence, Gabriel and Tuttle (2010) and Lawrence (2013) offer a solution to the intercollegiate financial issues by implementing ABC, it is still largely unknown what the perspectives of ABC are among intercollegiate athletic administrators. Therefore, the purpose of this study was to fill this gap by asking NCAA athletic administrators their perspectives on NCAA accounting practices and the ABC method. Before we can offer solutions to NCAA institutions and their financial issues, we need to understand the current accounting practices of NCAA Division I athletic departments. Also, as ABC is a management tool, which is created and implemented internally, it is important to understand athletic administrator perspectives on intercollegiate athletic accounting practices so we can understand if they will be willing to use a tool such as ABC. We specifically focused on the following research questions:

1. Do athletic departments already use ABC to help them understanding their costs?

2. What are athletic administrator perspectives on intercollegiate athletic financial inequalities and accounting practices?

In order to answer these questions, we constructed a survey to obtain information from NCAA athletic departments about the use of ABC. This survey was sent to the financial representatives of all 346 NCAA Division I members' athletic departments.[1] The representatives were asked questions related to financial inequalities, allocation of costs within their department, and their opinion on accounting practices including ABC. These questions were quantitative and qualitative in nature.

The contributions from this paper bridges the gap related to limited research focusing on accounting practices of NCAA members. This study provides a new perspective from athletic administrators directly involved in accounting and financial practices within their athletic department. This research also adds to the discussion that NCAA members must consider standardized accounting practices to alleviate financial inequalities noted by Lawrence and colleagues.

The remainder of this paper is broken down into several sections, next being the review of relevant literature. This section will discuss several areas including a broad understanding of college athletic financial reporting landscape and a brief historical perspective and application of the ABC model. The method and result sections discussing the data collected from financial managers of NCAA athletic departments will follow this section. This paper concludes with a discussion of athletic administrator perspectives of the intercollegiate financial landscape and the ABC model, in addition to identifying potential areas of future research.

LITERATURE REVIEW

The financial landscape of college sport has been a concern for many higher education administrators for years. At the time of conducting this study there were 346 NCAA Division I institutions in the United States (NCAA, 2016). Similar to earlier noted research, in a more in-depth survey published in USA Today based upon a public records request from 230 institutions who are required to make their athletics revenue and expense data public, 136 institutions reported revenues exceeding expenses. From this number of institutions 12 did not take any subsidies (i.e., student fees or general funding from the university), which indicates 12 of the 230 universities generated positive revenues through their athletic department (USAToday Staff, 2016). Across all universities analyzed in this report, subsidies used ranged from $271,222 (University of Oregon) to $42,227,612 (University of Connecticut). Based on this data from the 2016/17 season it would seem that staying within budget, overall, does not appear to be a concern for programs reporting financial data. While this informal data provides a broad view of the financial landscape of revenues and expenses in NCAA Division I athletics, there are regular reporting requirements that member institutions must follow.

Financial reporting landscape

The NCAA has three primary divisions with the Division I classifications receiving the most public attention with many student-athletes receiving multi-year, cost of attendance athletic scholarships. NCAA Division I athletics is a highly regulated sport enterprise. The 2015-16 Division I Rules Manual consists of 406 pages. Traditionally, NCAA regulations are put in place to prevent competitive advantages from being created among members (NCAA, 2017b). A review of the NCAA manual reveals extensive regulations governing athlete amateurism (Bylaw 12), recruiting (Bylaw 13), eligibility (Bylaw 14) and financial aid (Bylaw 15), in addition to bylaws dealing with benefits and playing and practice activities. Included in those bylaws are the commensurate documentation and reporting required assuring compliance. Yet there are only two sections of individual bylaws that give any direction to institutions regarding the financial procedures they could follow. Bylaw 2.16, The Principle Governing the Economy of Athletics Program Operation states in full,

> Intercollegiate athletics programs shall be administered in keeping with prudent management and fiscal practices to assure the financial stability necessary for providing student-athletes with

> adequate opportunities for athletics competition as an integral part of a quality educational experience. (p. 4)

Bylaw 3.2.4.15 provides a mechanism to attempt to monitor compliance with this principle. Institutions are required to file financial reports with the NCAA by January 15th of each year. The bylaw requires institutions to submit data "in accordance with financial reporting policies and procedures" (NCAA Division I Manual, 2015, p. 11). The data required includes but is not limited to the following:

a. Expenses and revenues for an institution's intercollegiate athletics program, including by outside groups,
b. Salary and benefits data for all athletics positions
c. Capital expenditures to be reported in the aggregate for athletic facilities, including plant and equipment depreciation and total annual debt service on facilities. (p. 11)

While it is unclear what financial reporting policies and procedures must be followed, nothing in the NCAA regulations require or suggest that data be reported other than in the aggregate or that costs be allocated to specific sport programs. In fact, institutions are specifically required to report capital expenditures in the aggregate.

Finally, Bylaw 3.2.4.15.1 requires the report be subject to annual agreed-on verification procedures, in addition to any regular financial reporting procedures of the institution and must be conducted by an independent accountant, but not a staff member of the institution prior to certification by the institution's president. In essence, this creates a form of audit to assure that only the institution's financial procedures and the NCAA agreed-on accounting procedures are met on a yearly basis.

From the NCAA regulations it is clear that there is no requirement to allocate costs or report financial data in any form other than that used by the institution or the agreed-on procedures approved by the NCAA. There is, however, an additional reporting requirement that athletic programs have outside of their NCAA mandates. Each year, in accordance with the

Equity in Athletics Disclosure Act (EADA), institutions from all NCAA divisions must make public and file with the Office of Postsecondary Education of the Department of Education a report of revenue and expense in their athletic programs. While the essence of this report is to compare the revenues and expenses in athletic programs both by sport and by gender, the information contained in the EADA disclosure report does not differ greatly from that which institutions file for their NCAA reporting requirements. The reason for this is that the NCAA reporting process is formatted in such a way that the information collected through that process can then be used to complete the EADA requirements.

The EADA report would appear to be a process that could benefit from the allocation of costs to individual sports as it seeks to compare revenue and costs among programs and between genders. Indirect cost allocation would provide accurate and detailed information for this purpose. But this is not the case for EADA reporting for several reasons. First, the EADA data is very similar as that contained in the NCAA report. Next, while the EADA report requires expenses to be reported by team and gender, three types of expenses are requested. Two of them, athletic financial aid and recruiting costs are directly attributable to specific sports. The third type of expense required to be reported are operating expenses, which could include indirect costs to be allocated to sports. However, the reporting format, while asking for expenses by sport, does not require the source or type of expense is included. Only the aggregate expenses in a sport and the aggregate expenses overall by gender get reported.

Activity based costing

In the late 1990s Robert S. Kaplan and Robin Cooper published a number of articles discussing a new cost management system that was being implemented throughout the manufacturing industry (c.f., Kaplan, 1990; Kaplan, 1993; Cooper & Kaplan, 1991). This new system became known as Activity Based Costing and was originally created to deal with the inaccurate allocation of overhead costs, or indirect costs. Overall, there are three groups of costs that manufacturers typically need to allocate to their end product. The first is direct materials and second is direct labor. These are variable costs that can be traced directly to the product and vary directly with the amount of product being produced. Third, the indirect costs or overhead costs are not clearly traced to the product, as many of these expenses do not specifically vary with an increase in production. An example of an indirect cost is the salary of a factory manager. Although the factory manager is part of the manufacturing process, the cost of the factory manager's salary cannot be easily traced to one specific product and does not fluctuate with the change in production (e.g., a strength and conditioning coach working with the football team as well as working with the golf team). Traditionally, manufacturers grouped all indirect costs into one large cost pool, called manufacturing overhead, and then allocated these costs to individual products or services based on one cost driver. Typically, this cost driver would be direct labor hours used or direct machine hours used. In this sense, the more labor hours used to produce the product, the more total overhead cost would be assigned to that product. The problem with this method is direct labor hours may not be the most representative of how all the indirect costs should be assigned, which can create inaccurate allocation of costs. This is not such an issue if total indirect costs are insignificant, but over the past 50 years there have been many changes in the manufacturing industry, which have caused a significant increase in the amount of indirect costs accumulated during the manufacturing process. This increase in indirect costs has led to increasingly inaccurate allocations of these indirect costs and pushed manufacturers to develop a more accurate allocation method. Also, many companies use a variable costing system and only attach variable costs to the products. Therefore, many fixed costs, like the salary of the factory manager, would be fully expensed during the period in question. ABC aids with both of these problems.

ABC consists of a two-stage process. First, all activities in the manufacturing process are identified. Then the percentage of time spent on each activity is determined. From here costs can be allocated to each activity based on these percentages. In the second stage, all activities' costs can then be allocated to products based on the products use of each of the activities (e.g., a strength and conditioning coach billing teams for each workout). This process helps to ensure the right portion of indirect costs and only the portion of fixed cost used during that period are being allocated to the individual products, hence creating a costing system that more accurately details the costs (resources) used during the specific period of time.

ABC was designed by management accountants and was specifically created to provide information for internal use and helped internal managers fully understand their costs. ABC only provides information about costs. For managers to benefit from ABC they must be able to take that information provided and make decisions. This information provides managers the ability to identify inefficient products, departments or services, identify and control all costs at the product level and can also allow managers to be more strategic in their pricing of products and services (Cooper & Kaplan, 1991). Although there are many useful benefits of using an ABC system, there are a few limitations that managers need to address before implementing ABC within their company. The first major limitation is the initial set up of ABC. To ensure the accuracy of ABC, organizations need to understand every activity that goes into the creation of each product. This original setup consumes a lot of time, money and resources initially to create a quality ABC system. Second, once an ABC system is set up there is still a lot of time and effort that needs to go into collecting all the data as well as managing the system. Therefore, employees at all levels must be willing to continually monitor and adjust the ABC system in order to ensure the system does not become inaccurate and hence create useless data. Lastly, it is important to remember that ABC was created to provide management with more accurate information about their costing and usage of resources. For the company to actually benefit from ABC, mangers need to act on the information, which ABC provides (Cooper & Kaplan, 1991). Activity cost pools and the cost drivers that allocate costs to specific products are selected by management and provide information specific to that design.

In this sense, ABC is a customizable system and every organization would therefore have different activity costs pools and cost drivers that make sense for their specific products. External parties would be limited in their use of this data because comparability across companies would be difficult. Therefore, ABC is only useful to the management within the organization. Companies that use ABC actually have to keep two accounting systems, as ABC is not allowed within the Generally Accepted Accounting Principles (GAAP). This is due to the inconsistent allocation of product costs. ABC allocates product costs based on the cost actually being used, compared to traditional costing systems that expense all product costs.

The use of ABC in intercollegiate athletics

In an article titled *Using activity-based costing to create transparency and consistency in accounting for Division I intercollegiate athletics* Lawrence et al. (2010) discussed how the use of an ABC system could help create transparency and consistency within intercollegiate athletics. Specifically, Lawrence et al. (2010) stated, "for athletic directors, university presidents, scholars, and the public to better understand the financial state of intercollegiate athletics, a consistent set of accounting practices needs to be established for athletic departments and the resultant data should be shared with the public" (p. 367). The authors go on to state that a cost allocation model, specifically ABC, would provide a way to "increase understanding of costs associated with each aspect of the athletic department as well as improving comparability and transparency" (p. 368). In a separate article, Lawrence (2013) goes on to argue that ABC could help to provide a more accurate cost of each individual sport with an athletic department. In this article the author provides an example of allocating a general athletic department cost (i.e., student advisement) to specific teams based on the number of athletes that use the activity. Her example showed that allocating costs to all teams evenly is inaccurate as there are 123 football players using advisement and only 9 golfers. Therefore, when using ABC costing, football would get a majority of the advisement cost and this would provide a more accurate report of specific sports costs.

Overall, both of the above-mentioned papers make a good argument that ABC could help improve the accuracy of cost allocation within collegiate athletics, but after a deeper analysis of ABC we have some concerns with the mentioned benefits of the implementation of ABC. Considering the initial high cost of creating an ABC system within any organization we believe it is imperative to dig deeper to understand all the benefits and limitations of using ABC within intercollegiate athletics before relegating all NCAA institutions to implement this costing system.

First, both papers (c.f., Lawrence, 2013; Lawrence et al., 2010) discuss that transparency and comparability are two major benefits from the use of ABC. Lawrence et al. (2010) focused on these benefits to external reporting associations. Lawrence (2013) suggested that through the use of ABC, consistency and transparency could be created. Right now neither the EADA nor NCAA require the costs incurred by athletic departments be allocated or attributed to the individual sports.[2] Lawrence et al. (2010) argue that having the EADA require the use of ABC would increase transparency and comparability. They also discuss the use of ABC by the NCAA to help reinstate the fiscal integrity requirement of the certification process by suggesting that this would help create consistency across all athletic departments and allow for finance, budget, and accounting information to be compared. We find an issue with this decree. Although we agree that ABC can help increase the understanding of costs associated with departments or products, this increase in understanding of costs is specifically for the managers that created the ABC system to understand their own costs and provide information in order to make internal decisions, with the intent to better the organization as a whole. As we mentioned in the above discussion on ABC, it was originally designed to provide internal managers with more accurate information of the use of their resources during a period of time. We contend, similar to that of non-sport related ABC research, that there is no “one size fits all" template for an ABC system implementation. Internal managers of each institution need to customize their own ABC system, defining activities and cost drivers. This customization would drastically limit the comparability across institutions. Again, because each institution would need to customize their ABC system to be useful for themselves, comparability would not be that likely. Lawrence et al. (2010) themselves discussed how customization would have to occur at each institution separately.

To provide an example, we will use Lawrence's own allocation example discussed above. As the example shows, under ABC, football would get more of the advisement costs due to more players using the advisement services. Although this provides more accurate information at this institution, another institution may decide that advisement costs should be allocated based on hours used, not the number of students using the service. The football team using the tutoring services in-group sessions could cause this, whereas the golfers use the service individually. This may lead golf to use more total hours than the football team and then would take on more total costs. Again, this information may be beneficial to internal users, but this difference in allocation method used between the two institutions would lead to less comparable information. One could argue that the NCAA or EADA could mandate the allocation method, but that defeats the purpose of ABC and would limit the usefulness of the information to internal users. Although ABC may lead to more detailed information about the costs of each sports team within the institution, there is no control over how those costs are split between the teams. Again, institutions allocate costs how they want to and therefore control what costs are allocated to which team.

An additional argument presented by Lawrence et al. (2010) suggested that the use of ABC would help reinstate the fiscal integrity requirement, which they equate to publicly traded companies using Generally Accepted Accounting Principles (GAAP) as their accounting standards to ensure financial statements are fairly stated, transparent and comparable. Besides the above discussion on the issue with comparability, GAAP itself does not allow the use of ABC within financial reporting, which alone should deter the use of ABC for fiscal integrity reasons. The reason ABC is not permitted by GAAP is due to the allocation of product costs based on actual use and not on resources supplied. This again creates variations across businesses and limits comparability and is the main reason ABC is not included in GAAP. This provides further support that ABC would not actually bring comparability or consistency to the financial picture. Therefore, ABC would likely not be useful to help reinstate the fiscal integrity requirement of the NCAA as Lawrence et al. (2010) would like, but considering GAAP was created to create transparency and comparability, having GAAP or a form of GAAP as a requirement may be a better solution.

Additionally, Lawrence et al. (2010) suggested that transparency is a possible benefit of ABC, but based on the above discussion on customized ABC systems, external users would have a hard time fully understanding how the indirect costs were being allocated. Without knowing exactly what all the activity cost pools and costs drivers are for each institution, transparency would be limited. Additional steps would need to be taken by athletic departments that chose to implement ABC to maximize transparency to stakeholders.

In summary, ABC is a tool designed to help management obtain information for decision-making. It is not created for external users nor is it constructed as a control tool to monitor management actions. Therefore it is an open to question whether transparency, comparability and fiscal integrity would be improved with the use of ABC. For ABC to work effectively it is important to have the support of the individuals who will be implementing it. We now focus on these internal users to understand if the benefits from ABC outweigh the implementation costs and whether they would even use or want such a system.

Method

Decades of discussion regarding the financial inequalities within intercollegiate athletics still continues. These discussions have questioned the finance, budget, and accounting practices of NCAA athletic departments. Past research has offered solutions to these issues including the use of ABC (Lawrence, 2013; Lawrence, Gariel, & Tuttle, 2010; Zimbalist, 2013). The ABC method, a valid accounting practice across multiple industries, has limited application among intercollegiate athletic departments but may offer as a solution to athletic departments financial challenges. Using an exploratory foundation (Jones, 2015), the current research builds on bridging the gap to understand the opportunity ABC may have in reducing the financial inequalities and aid in the challenging accounting practices among many NCAA athletic departments. To accomplish this, a survey was developed to highlight specific finance, budget, and accounting practice experiences of intercollegiate athletic business personnel. To add to this understanding, survey participants were asked to participate in an interview to expand on the topic of ABC practices as it may relate to their athletic department and the NCAA landscape.

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Notes

1. This was the number of NCAA members on the day we administered the survey.
2. As found in each organization's official website, the EADA and NCAA both have required filings for intercollegiate athletics.