Perceptions of strength and conditioning programs by athletic directors and strength and conditioning coaches at Division I Mid American Conference universities

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A Dissertation

entitled

Perceptions of Strength and Conditioning Programs by Athletic Directors and Strength and Conditioning Coaches at Division I Mid American Conference Universities

by

Dustin M. Winkler

Submitted to the Graduate Faculty as partial fulfillment of the requirements for

The Doctor of Philosophy Degree in Higher Education

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August 2013
This study investigated strength and conditioning programs in athletic departments of NCAA Division I universities in the Mid-American Conference (MAC). Little research has been conducted on the perceptions of constituents associated with these programs causing a gap in the literature. The purpose of this research was to examine the perceptions of head athletic directors and strength and conditioning coaches about the organization, structure, and function of strength and conditioning programs. The theoretical lenses used in this study included Weber’s bureaucratic theories on higher education universities and Birnbaum’s problematic issues with bureaucracies. A semi-structured interview process was used to interview 10 participants (5 athletic directors and 5 strength and conditioning coaches). An analysis of the participants’ perceptions revealed six common themes. First, strength and conditioning programs within the MAC have great value, but some athletic departments clearly value their strength and conditioning programs by providing more financial resources than others. Secondly, mission statements are important documents in the daily operations of athletic
departments, but the perceptions vary regarding the need for more specialized mission statements. Third, the organizational infrastructure of the MAC athletic departments is characterized by high levels of expertise and the need to add more staff to strength and conditioning programs. Fourth, resources are perceived to be the one of the most critical issues, especially in light of the rising costs of running athletic departments and the expectations to be fiscally responsible. Fifth, communication is important to athletic directors and strength and conditioning coaches in the operations of their department. Sixth, athletic directors and strength and conditioning coaches both perceive maintaining budgetary restrictions, adapting to the current economic environment, and experiencing growth and exposure as projected. Recommendations for practice include (1) staffing strength and conditioning programs appropriately, (2) developing long-term contractual agreements with performance-based incentives, (3) developing mission statements for all athletic departments and strength and conditioning programs, (4) producing and disseminating empirical data, and (5) separating strength and conditioning coaches so that they stand out from head sport coaches and occupy a higher-profile position on organizational charts.
I would like to dedicate this study to Saint Augustine, whose thirst for knowledge and the perceived truth along with the unmatched strength and will to attain it served as an influential benchmark in the undertaking of this study.
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Chapter One

Introduction

This dissertation focuses on intercollegiate athletics in general and strength and conditioning programs at the NCAA Division I level more specifically. The purpose of this study was to explore the perceptions of stakeholders within colleges and universities in the Mid-American conference in order to identify how organizational institutions function in the field of higher education. Additionally, this study sought to identify thematic similarities and differences among the perceptions offered from the participants. Lastly, this study sought to investigate what types of relevance athletic directors and strength and conditioning coaches perceived about strength and conditioning programs physically located within intercollegiate athletics.

Background of the Problem

Strength and conditioning programs historically have deep organizational and structural roots in intercollegiate athletics programs that are located within higher educational institutions all across the United States. In fact, intercollegiate athletics has been a part of higher education institutions since 1852, when a crew race was organized between students of Harvard and Yale. The idea of competition between colleges garnered immediate popularity and resulted in the creation of other intercollegiate sports, including (1) baseball in 1859; (2) football in 1869 (or, a game that widely resembled a mixture between soccer and rugby); (3) track and field in 1876; (4) lacrosse in 1886; and (5) tennis in 1887. According to Adelman (1986), Chu (1985), Crowley (2006), Frey, (1982), and Mechikoff (2010), most of these sports were organized and administrated by
the students, and this form of organization was widely accepted until intercollegiate sports began to show the potential for monetary gain related to the sport of football.

With the enormous popularity of this student-run activity also came problems involved with governing intercollegiate athletics, including what Frey (1982) labeled as a lack of uniform rules for all sports, the use of professionals and a lack of a uniform description of what an amateur is, injuries that sometimes caused fatalities, and money mismanagement. Eventually, college presidents were called upon in the early 1900s to take control of their intercollegiate athletics programs. Their answer was to create the National Collegiate Athletics Association (NCAA) in 1906. According to Crowley (2006), the NCAA’s main purpose at that time was to define the rules of intercollegiate sports (mainly football), clearly define eligibility of student-athletes, establish recruiting rules, and provide a proper definition of amateur status. The NCAA did not regulate or enforce these guidelines, but instead this organization was used by institutional members on a consultation basis. College presidents also integrated intercollegiate athletics into physical education departments in order to elicit faculty support and supervision. Frey (1982) wrote, “The faculty played a watchful role and coaches were hired into the departments as faculty members” (p. 22). Chu (1989) added, “In the first third of the twentieth century, most faculty from the newly emergent field of physical education were also given responsibility for intercollegiate sport. Physical educators quickly assumed responsibility over a new curriculum of sports activities and extracurricular intercollegiate teams” (p. 129). Conferences were also established at a regional level during the first two decades of the twentieth century. Finally, the NCAA was granted
regulatory powers in the early 1950s, when the nearly 400 higher education institutional members voted to pass the 1953 Sanity Code.

Strength and conditioning programs in intercollegiate athletics officially started in 1958, when Alvin Roy convinced the head football coach at Louisiana State University, Paul Dietzel, to implement a strength and conditioning program. That year, the football team went undefeated and won a national championship. Subsequently, Dietzel gave much of the credit for the team’s success to his strength and conditioning coach. From this time forward, campuses around the country began to implement strength and conditioning programs, which originally was organized under the governance of the physical education departments. These campuses conducted their strength and conditioning programs at physical education facilities (gymnasiums and make-shift weight rooms).

According to Leistner (1995), Boyd Epely was appointed to be the first paid strength and conditioning coach during the early 1970s, at the University of Nebraska. The success at Nebraska caused a trend of hiring strength and conditioning coaches, who reported to the head athletic directors in athletic departments. This represented a permanent break for strength and conditioning programs from physical education departments, as athletic departments raised independent funds for strength and conditioning facilities.

Today, all 120 collegiate institutions of NCAA Division I have a strength and conditioning program. They are highly resource intensive, in that they require specialized facilities, specific and select equipment, staffing, and maintenance and upkeep. The head athletic director assumes ultimate responsibility for the program but delegates program
control to the head strength and conditioning coach. The head strength and conditioning coach assumes responsibility for day-to-day program operations and must adhere to athletic department objectives set forth by the head athletic director. He or she also may have assistant strength and conditioning coaches or graduate assistant coaches or interns to help accomplish day-to-day operations. The functionality of a strength and conditioning program adheres to two basic principles: A number of researchers have indicated that the primary purposes of strength and conditioning programs are (1) to strengthen athletic performance and (2) to provide safety against injury during intercollegiate competition (Aeberg, 1998; Baechle & Earle, 2000; Brzycki, 1995, 1999; Darden, 2004; Jones, 1970; Leistner, 1999; Mannie, 2004; Riley, 1982, 2005; Wolfe 2004). Strength and conditioning programs also fit under the financial budget of the athletic department, which means that resources are used to assure program operation.

Statement of the Problem

Departments and programs in higher education institutions face the economic realities of justifying their worth on a yearly basis to constituents who ultimately determine budgetary appropriations. Departmental politics has placed pressure on departments to use all available information to garner departmental and program support, including fiscal justifications, perceptions of stakeholders, and research evidence. This study originated in response to a research gap in the literature concerning the perceptions of athletic directors and their strength and conditioning programs as they pertain to issues of bureaucracy within institutions of higher education, particularly athletic departments. One study provided by the National Strength and Conditioning Association’s 2000 Policies and Procedures model stresses the importance of program governance:
“Communicating a plan of action to the strength and conditioning staff and having the plan correctly implemented establish a standard of excellence and help to ensure athlete safety” (Epley, 2000, p. 572). This study also noted that policies and procedures were put into place for liability reasons and that coaches and athletes were to adhere to formalized governance principles. Epley covered program goals and the mission statement, program objectives, job titles and descriptions and/or duties, and facility administration. However, he makes no mention of the relationship between strength and conditioning programs and athletic departments. In fact, no athletic directors were interviewed or involved with this study. The study also failed to address how a strength and conditioning program fits into the overall policies and procedures of the athletic department. And finally, the study failed to address bureaucratic issues that arise within the athletic departments of intercollegiate athletic departments, specifically strength and conditioning programs.

Strength and conditioning programs represent just one small component within a large number of programs that exist under the umbrella of higher education. Tracing the evolution and development of strength and conditioning programs illustrates the relationship between goals of these programs and the educational philosophy of higher education. Tracing this development also illustrates from a macro perspective the functional role that strength and conditioning programs have played in colleges and universities.

According to Anderson (1968), Blau (1956, 1994), Duderstadt (2003), Selznick (1948), and Walton (1959), higher educational systems, in one form or another, adhere to organizational principles that apply to all social organizations. From a micro perspective,
strength and conditioning programs are just one of many specialized subunits that exist within athletic departments. Blau (1994) wrote, “As organizations grow, the number of subunits (such as departments) increases, these subunits become increasingly specialized, and the administrative structures become more complex” (p. 106). Characteristically, this system of subunits within departments within higher education institutions fits under Max Weber’s bureaucratic rational-legal structural model. Weber (1958) wrote,

The fully developed bureaucratic mechanism compares with other organizations exactly as does the machine with the non-mechanical modes of production. Speed, precision, unambiguity, knowledge of the files, continuity, strict subordination, reduction of friction and of material and personal costs--these are raised to the optimum point in a strictly bureaucratic administration, and specifically in its monocratic form. As compared with all collegiate, honorific, and avocational forms of administration, trained bureaucracy is superior on all points. (p. 214)

Selznick (1948) added, “All organizations, and I might add, parenthetically, all social systems, develop a structure and mechanism to provide for their maintenance and continuity” (p. 1). Here, it should be noted that even though Weber was not commenting specifically on intercollegiate athletics; rather, he was speaking directly about characteristics of a systematic philosophy to which institutions of higher education subscribe, including intercollegiate athletics. Anderson added that these characteristics include systems of authority, status, competence, proper and effective communications, and the structuring of offices in a hierarchical order.
Birnbaum (1988) made the claim that although there are positive characteristics to a rational-legal bureaucracy in higher education, there are also problematic issues that exist. These problematic issues center on ambivalence and confusion from top-down governance between administrators and workers. He listed 10 categorical issues that received support from other academic researchers (Anderson, 1968; Besse, 1973; Blau, 1956, 1973, 1994; Corson, 1960; Duderstadt, 2003; Gross & Grambsch, 1974; French & Raven, 1959; Stroup, 1966; The Carnegie Foundation for the Advancement of Teaching, 1982; Thompson, 1967; Veblin, 1957). These 10 categorical issues include the following: (1) governance structure and interaction; (2) dualism of controls; (3) clarity and agreement on organizational mission and management; (4) power, compliance, and control; (5) institutional and organizational constraints; (6) institutional and environmental change; (7) decentralization; (8) inflexibility of resources; (9) confusion at organizational levels; and (10) problems of leadership.

Generalized problems exist within all organizations that operate in an interconnected system of economics, including higher education. However, the extent to which these problems exist within intercollegiate athletic programs has not been sufficiently explored. More specifically, although there exists a vast amount of information on exercise science, physiology, and physical education, virtually no research has been conducted on the bureaucratic problems within intercollegiate athletic departments and their strength and conditioning programs. Current research does not offer any information about the perceptions of stakeholders (e.g., head athletic directors and head strength and conditioning coaches) and whether Birnbaum’s 10 issues with bureaucracy apply appropriately within bureaucratic organizations of higher education.
Purpose of the Study

The purpose of this dissertation was to analyze stakeholder perceptions about current issues in strength and conditioning programs from a bureaucratic perspective within higher education by using Birnbaum’s 10 issues as a guide to discover whether these issues exist within athletic departments in general and strength and conditioning programs specifically.

Research Questions

RQ. 1. How do athletic directors perceive their individual strength and conditioning programs?

RQ. 2. How do head strength and conditioning coaches perceive their individual strength and conditioning programs?

RQ. 3. What similarities and/or differences emerge in the ways that athletic directors and strength and conditioning coaches perceive strength and conditioning programs?

Theoretical Framework

As increasingly stringent financial and economic concerns continue to impact higher education, governance issues have become more prominent. Governance has been examined from a variety of theoretical, historical, political, and philosophical perspectives. For example, transformational theories of governance have helped explain how political power structures evolve and transition over time. Network theories of governance have helped explain how governance issues are balanced and maintained through an examination of the social and political factors that form policy networks. Argument theories have used linguistic and social theories as a way of understanding and
interpreting policy, and they rely on the close examination of the role of language and discourse in governance issues. While these theories have informed studies of governance in general, they do not provide a suitable fit for this study because they forefront issues that extend beyond the scope of this study (e.g., policy networks).

The theoretical foundation for this study is found in the work of Robert Birnbaum. Birnbaum (1988) wrote that there is no single definition of higher education governance although it has been variously discussed in terms of “...structures and processes through which institutional participants interact with and influence each other and communicate with the larger environment” (p. 4). Two important issues concerned with general governance in higher education include ambivalence and confusion. A variety of sources have all agreed that unique institutional governance issues have resulted in ambivalence and confusion (Baldridge et al., 1978; The Carnegie Foundation for the Advancement of Teaching, 1982; Corson, 1960, 1979; Perkins, 1973; Whetton, 1984). Birnbaum (1988) specifically classified issues related to ambivalence and confusion in governance into 10 categories: (1) governance structure and interaction; (2) dualism of controls; (3) clarity and agreement on organizational mission and management; (4) power, compliance, and control; (5) institutional and organizational constraints; (6) institution in relation to environment; (7) decentralization; (8) resources; (9) confusion of organizational levels; and (10) problems of leadership. Specifically, this study uses governance theory in a broad sense to examine athletic directors’ and strength and conditioning coaches perceptions of strength training programs at Division I colleges. Because athletic directors and strength and conditioning coaches are embedded in educational institutions that consist largely of rather well-defined hierarchies within institutional organizations,
Birnbaum’s 10 categories offer a suitable theoretical lens through which to examine and interpret the perceptions of athletic directors and strength and conditioning coaches.

A second component of the theoretical framework for this study is phenomenology. Phenomenology provides an appropriate vehicle to help investigate the athletic directors’ perceptions of strength and conditioning programs. Phenomenology can be traced back to the works of Franz Brentano (1838-1917) and Carl Strumf (1848-1936), but most authors credit Edmund Husserl (1859-1938) as the originator (Mechikoff, 2010; Patton, 1990; Smith, 2011). Smith (2011) wrote, “Phenomenology is the study of structures of consciousness as experienced from the first-person point of view. The central structure of an experience is its intentionality, its being directed toward something, as it is an experience of or about some object. An experience is directed toward an object by virtue of its content or meaning (which represents the object) together with appropriate conditions” (p.1). Mechikoff (2010) also identified the primary goal of phenomenological research: “The objective of phenomenology is to go directly to the experience and relish it for what it is” (p. 21).

From a higher educational perspective, Patton wrote that phenomenological inquiry focuses on the following question: “What is the structure and essence of experience of this phenomenon for these people” (1990, p. 69)? Patton has agreed that phenomena under investigation can include a program, an organization, or a culture. In fact, Patton (1990) and Creswell (2004) have written in-depth explanations and analyses of phenomenology and state very clearly that interviews designed to elicit information about political and social structures within higher education programs--in this case, athletic departments at Division I colleges--provide a valuable qualitative tool.
From a phenomenological perspective, this study uses a bureaucratic theory of governance to explore athletic directors’ and strength and conditioning coaches’ perceptions of strength conditioning programs. This approach allows the researcher to collect data that illuminates the perceptions of athletic directors and strength and conditioning coaches in order to better understand how governance issues play a role in decision-making and communication within athletic departments. This will allow the research to interpret perceptions through an analysis of their experience. Patton (1990) has suggested that using a phenomenological lens allows researchers to use “qualitative and naturalistic approaches to inductively and holistically understand human experience in context-specific settings” (p. 37). Patton has further suggested that qualitative data derived through a phenomenological lens will “…permit judgments to be made about the extent to which the program or organization is operating, the way it is supposed to be operating, revealing areas in which relationships can be improved, as well as highlighting strengths of a program that should be preserved” (p. 95). These judgments form the core of this research study and will enable stakeholders not intimately involved in athletic departments or programs--for example, external funders, public officials, and external agencies--to better understand how a strength conditioning program operates and make more informed decisions about the program.

Research gaps exist in higher education in general and in governance issues in intercollegiate athletics specifically. To complicate these issues more, in specifics, a research gap has been found within intercollegiate athletics as it applies to their strength and conditioning programs. From a phenomenological standpoint, this philosophy allows the reader to divulge governance issues listed above by asking the experts what their
perceptions are of a specific program. These experts are the Head Athletic Director (who is the head of the intercollegiate athletics department) and the Head Strength and Conditioning Coach (who is the head of the strength and conditioning program). Through a phenomenological lens, this study will interpret perceptions through analysis of experience. Patton also wrote: “This phenomenological inquiry uses qualitative and naturalistic approaches to inductively and holistically understand human experience in context-specific settings” (1990, p. 37).

This study plans to use phenomenology to investigate Birnbaum’s ten categories of governance issues, which fills a literature gap in a higher education intercollegiate athletics program. Patton tells us that when processed, this data will “...permit judgments to be made about the extent to which the program or organization is operating, the way it is supposed to be operating, revealing areas in which relationships can be improved, as well as highlighting strengths of a program that should be preserved” (1990, p. 95). The processed descriptions from the offered perceptions will also be useful in permitting people not intimately involved in the program- for example, external funders, public officials, and external agencies- to understand how a program operates. This also permits such external persons to make educated decisions about the program.

**Significance of the Study**

The significance of this study is situated in its value to four primary constituents. First, this study provides information useful to higher education administrators who are not involved with collegiate athletics. Marshall and Rossman (2006) have argued that it is important for policy-makers, informed experts, and experienced professionals to identify proposed research with the possibility of addition to current and existing knowledge.
Some of these administrators could be interested in how intercollegiate athletics departments manage strength and conditioning programs, and until now, this research previously has been unavailable. For example, there may be professionals within higher education who have a special interest in sports management, or program development, who might benefit from this study. Another benefit not previously available, is to achieve one of the goals of phenomenology, which gives the reader the ability to go directly to the experience of the participants by reviewing their perceptions about either their department and/or their program, depending on who the participant is. This first person phenomenological lens helps to give the reader some perspective about strength and conditioning programs. The results of this study also could help professionals interested in theories on bureaucratic organizations, how these organizations communicate, how they distribute resources, and perceptions offered on methods used to govern bureaucratic organizations. These professionals could benefit from the information disseminated from this study and apply it accordingly to their own department and/or program(s) For example, relationships could be improved between the head of a department and an employee towards the bottom of the organization chart.

Secondly, this study provides information useful to professionals involved with intercollegiate athletics, such as university executive boards, college presidents, university fiscal managers, athletic directors, associate athletic directors, assistant athletic directors, program directors/managers, intercollegiate-faculty representatives, strength and conditioning coaches, other head sport coaches, assistant sport coaches, graduate assistant coaches, interns, and undergraduate students looking to enter the field of either sports management or strength and conditioning. Although the level of involvement that
these constituents may have with athletic departments may vary, the professional association is clearly linked from university to university, which could help to establish common organizational benchmarks for the ways athletic departments organize and administer their strength and conditioning programs.

Third, this study provides helpful information for individuals and organizations involved with national strength and conditioning associations. Associations such as the National Strength and Conditioning Association (NSCA) and the Collegiate Strength and Conditioning Association (CSCA) offer education programs, assorted certifications, employment opportunities, networking conferences, and publishing opportunities through their monthly distributed magazines. The results of this qualitative study offer a practical means of application for these associations in any of the areas previously mentioned, i.e., they can apply the results of this study accordingly through what their associations have to offer to their individual members.

Fourth, the information gained from this study could help administrators and others who are employees within the National Collegiate Athletics Association (NCAA) Division I. As the overall governing body of intercollegiate athletics programs, the NCAA sets guidelines and official mandates for all athletic departments in Division I, including the Mid-American Conference (the primary focus of this study). This results of this study help constituents within the NCAA to understand working relationships within athletic departments from a higher-education perspective. Specifically, the results help NCAA officials understand how the bureaucratic methods of organization, function, and structure apply to strength and conditioning programs, which can help guide future policies and/or mandates concerning strength and conditioning programs.
This study introduces Weber’s theory of bureaucracy (1947), (1958), (1973), (1999), (2002), and (2004), and Birnbaum’s issues with it. The results of this study provide opportunities for all the constituents both directly and indirectly involved with athletic departments in general and strength and conditioning programs specifically to apply the information to their own programs. For example, the perceptions offered from this study may help athletic directors and strength and conditioning coaches to create more informed policies concerning strength and conditioning programs. It also further informs those who make fiscal and budgetary decisions concerning strength and conditioning programs.

Sixth, the results of this study could also help those who work specifically with strength and conditioning programs through national associations. As a result of the phenomenological methods used to investigate strength and conditioning programs, these associations can use information from this study to better understand what strength and conditioning coaches perceive to be critical issues and to further address those issues. Finally, the overall significance of this study is to inform constituents of programs located within their respective departments, located within their respective universities with previously unknown information.

**Limitations**

Creswell defines limitations as “potential weaknesses or problems in research that are identified by the researcher” (2004, p.593). This study is limited in several important ways. First, the presence of the researcher may have influenced responses by the head athletic directors and the head strength and conditioning coaches. Secondly, concerns over anonymity and confidentiality may have inhibited head athletic directors and head
strength and conditioning coaches, thereby influencing the forthrightness of their responses. Third, it is possible that researcher bias may have been introduced unconsciously and unintentionally during the interview process. Fourth, the results of this study conducted within the Mid-American conference will not be generalizable to populations beyond the sample-- e.g., other conferences (12 in all). Fifth, findings from this qualitative study may be perceived as having limited credibility by higher education administrators who hold a favorable bias toward quantitative research. Lastly, the enormous volume of data generated by the interview process pragmatically limited the scope of the study to 10 participant interviews.

Delimitations

According to Lunenburg and Irby (2008), delimitations are “self-imposed boundaries set by the researcher on the purpose and scope of the study” (p. 134). The delimitations for this study were determined by a desire to better understand the perceptions of athletic directors and strength and conditioning coaches at Division I universities. As a result, this research study is delimited in several areas. First, this study was delimited to three research questions, each focusing on the perceptions of head athletic directors and head strength and conditioning coaches. A maximum of three research questions was selected in order to provide a relevant but manageable scope for this project. Secondly, the geographic location of colleges within the sample was delimited to states within the Mid-American conference. These states include Ohio, Michigan, Indiana, Illinois, Pennsylvania, and New York, and were selected because of their proximity to the researcher, thus making access to participants for data collection purposes much more manageable. Third, the number of colleges in this study was
delimited to 12. These include Division I universities located within the Mid-American Conference. This delimitation of 12 schools was established to provide a sample size sufficient to reveal thematic content in the responses of the interview participants without placing an excessive burden on the researcher to collect and analyze an overwhelming amount of data. And finally, the sample for this study was delimited to head athletic directors and head strength and conditioning coaches. The researcher chose to explore the perceptions of individuals in these two positions because they represent an as yet unexplored area of research in the existing literature base related to bureaucratic issues within institutions of higher education.

Assumptions

The researcher made the following assumptions regarding this study. Birnbaum wrote: “Colleges and universities should be open systems that engage in a number of continuing exchange processes with their environments. These institutions can be thought of as composed subsystems that are related to each other through shared organizational elements” (p. 14, 1988). The first assumption is that all institutions participating in this study are comprised of these subsystems.

Secondly, it was assumed that athletic directors communicate with staff members of their strength and conditioning programs and that athletic directors have perceptions concerning the proper administration and organization of strength and conditioning programs. It was also assumed that head strength and conditioning coaches communicate with athletic directors about strength programs as they facilitate and guide these programs. To combine these assumptions, would be to say that there is a working relationship between the two, and communication helps in providing proper
administration for strength and conditioning programs at the NCAA Division I level. The last assumption was that all participants were truthful and honest in their responses to the questionnaire.

**Definition of Terms**

The following are definitions of terms prevalent to this study. These terms will be used throughout the study and are explained in alphabetical order this section.

*Athletic Department:* Athletic departments are present within almost all higher education institutions. Athletic departments have systems of governance and structured administration that comply with the overall goals and mission of the university they are a part of. Typical functions performed by athletic departments include policy formation; budgetary development and adherence; facility construction, maintenance, and upkeep; scheduling of usage; hiring and firing of coaches; alumni and fan development; and providing a safe, successful, and positive atmosphere for student-athletes involved with intercollegiate athletics (Steitz, 1971). Athletic departments are usually led under the direction of the head athletic director.

*Bureaucracy:* Bureaucracy is what Weber (2004) refers to as legal rule on the basis of enactment. Regarding bureaucracy, he wrote, “Its fundamental idea is that any law can be created and any existing law can be changed by enactment that is decided by formally correct and rationally-legal procedure” (p. 133). This definition creates the possibility of formalized relationships between offices of an organization. Bernard (1947) wrote, “This formal authority is buttressed by the allocation of status and organizational rewards. These include income, deference, responsibility, titles, privileges, access to information, and other prerequisites of office” (p. 46). Crucial to organizational
bureaucracy are specialized duties, whereby each department specializes in a rational and legal function in order to maximize efficiency. Many colleges and universities subscribe consciously or subconsciously to systems of bureaucracy, and intercollegiate athletics fits into this philosophy accordingly--i.e., there is a chain of command, there are specialized responsibilities and duties according to titles and privileges within the department, there are differences in income, and there are existing rules and procedures that govern each department.

**Conference:** Conferences consist of similar universities that are bound together through contractual agreements. Duderstadt has observed that “today’s athletic conference office functions more like a business enterprise than an association of academic institutions with the primary responsibility for the integrity of college sports” (2004, p. 118). He also has noted that these conference offices provide information on NCAA compliance, rules, and regulations to college presidents. Conferences are run by a conference commissioner, who answers to a conference board of trustees (which consists of the college presidents of the participating colleges). Head athletic directors and faculty representatives also consult conference commissioners on governance issues. There are 13 conferences that currently comprise NCAA Division I college athletics.

**Division I, FBS/Non-FBS:** Division I Football Championship Series (FBS) includes six conferences: the Big East, the Atlantic Coast Conference (ACC), the Southeastern Conference (SEC), the Big 12, the Big 10, and the Pac 12. Teams within these conferences are considered for major bowl games and national championship contests. Six other conferences that are considered Division I Non-BCS conferences include Conference USA, the Mid-American Conference (MAC), the Mountain West, the
Sun Belt Conference, the Western Atlantic Conference (WAC), and the NCAA Division I-A Independent Schools. Schools from within FBS and Non-FBS conferences can compete with each other.

*Head Athletic Director:* Head athletic directors are responsible for the overall success of the athletic department, including meeting the overall goals and fulfilling the mission of the college or university. The overall structure, function, and organization of athletic departments rest on the administrative shoulders of the head athletic director. The head athletic director usually has a direct line of communication with the college president.

*Head Strength and Conditioning Coach:* Head strength and conditioning coaches are responsible for the overall strength and conditioning program, facility, equipment, and staff as well as such administrative tasks as preparing budgets (to then be approved by the head athletic director), purchasing equipment, preparing proposals, and working with the school administration and media. Typically, head strength and conditioning coaches are paid a salary by the institution as an athletic department staff member (Epley, 2000, p. 569). Head strength and conditioning coaches also are typically supplied with a staff to help assist with program duties. The staff could include assistant strength and conditioning coaches, graduate assistant coaches, and interns.

*Mission Statement:* Universities are guided by mission statements which help identify and direct specific goals and directives. Mission statements characteristically relate to the purpose and the function of the universities that create them. All universities within the Mid-American Conference have mission statements.
National Collegiate Athletics Association (NCAA): The National Collegiate Athletic Association (NCAA) is a voluntary organization through which colleges and universities in the United States govern their athletics programs. It is comprised of institutions, conferences, organizations, and individuals committed to developing and supporting student-athletes in their educational and athletic pursuits.

National Strength and Conditioning Association (NSCA): The National Strength and Conditioning Association (NSCA) is a non-profit, tax-exempt organization. It exists because there is a need within the community of strength and conditioning professionals for accurate and credible educational information. Individuals within this association also create an environment of constant learning through networking. The goals of the association include improved athletic performance, prevention of injury, improved health, and wellness.

Strength and Conditioning Program: Strength and conditioning programs can be found within all NCAA Division I participating universities. These programs are typically implemented within a weight room or a gym. Epley (2000) has suggested that the goals of most strength and conditioning programs include designing and administering strength, flexibility, aerobic, plyometric, and other training programs that reduce the likelihood of injuries and improve athletic performance.

Student Athlete: As the name suggests, student-athletes are students at colleges and universities who are deemed eligible to compete at a collegiate-sanctioned sporting event and who participate in intercollegiate athletic sporting events.
Method

The purpose of this dissertation was to provide what Patton (1990) has referred to as applied research. More specifically, the purpose of this research was to “…provide knowledge as an end in itself” and “to discover truth” (1990, p. 12). The focus of this qualitative research was on the administrative opinions and perceptions of intercollegiate athletics staff concerning their strength and conditioning programs at the NCAA Division I level.

The sampling strategy used for this study was purposeful sampling. Creswell (2004) defined this as a “procedure in which researchers intentionally select individuals and sites to learn or understand a central phenomenon” (p. 596). The focus is on athletic directors and head strength and conditioning coaches at the NCAA Division I level. Patton (1990) further has defined this sampling structure as an information-rich case where one can learn a great deal about issues of central importance to the purpose of research.

The method used to collect data was a standardized open-ended questionnaire. Patton (1990) has defined this as “a set of questions carefully worded and arranged with the intention of taking each respondent through the same sequence and asking each respondent the same questions with essentially the same words” (p. 280). Rubin and Rubin (1995) have suggested that interviews are used best when researchers seek to evaluate projects and programs that look for social reform or managerial improvement. The standardized open-ended questionnaire helped to keep the interview systematic.

Strengths of this interview method are that it permits scholarly consumers to evaluate the instrumentation, see that it provides consistency in the process from
interview to interview, and facilitates organization and analysis of the data. Patton (1990) has noted that weaknesses of the interview method include little room for flexibility and that the questions may constrain or limit responses. This means that some valuable experiences or opinions could have been omitted from the interview discussions. These experiences or opinions may be important to interview respondents, but without room for flexibility, they may not have been discussed. Marshall and Rossman (2006) cited cooperation from participants as essential to making the design effective. Interviewer participants were assured confidentiality in order to combat being ostracized within their community/organization. The methods of ensuring confidentiality and anonymity were clearly written and approved by the Institutional Review Board (IRB) at the University of Toledo.

This dissertation is qualitative in nature because the perceptions of athletic directors and head strength and conditioning coaches are valuable in determining how to govern or administer strength and conditioning programs. The IRB process began in January 2012 and was completed in February 2012. In order to assure interviewer confidentiality, the survey sample included 12 present members of the NCAA Mid-American Conference in a six states. These interviews took place between May 2012 and June 2012. They were transcribed in July 2012.

**Organization of the Remainder of the Study**

This study contains five chapters. Chapter one offers an introduction to the reader. It informs the reader about the nature of the study. It provides the theoretical background, statement of research problem, research purpose, and the research questions. Chapter one
is an overall attempt to inform the reader, explain the nature of the study, explain why it is important, describe how it was conducted, and describe where it was conducted.

Chapter two is a review of existing literature that surrounds administration of strength and conditioning programs. It offers historical background information, which allows readers to understand how strength and conditioning programs fit into overall athletic departments and how they evolved into the entities that they are today. It also reviews the literature surrounding organizational bureaucracy and how this research applies to intercollegiate athletics. Then Chapter two provides academic critiques of organizational bureaucracy— in particular, it focuses on problems of ambivalence and confusion. Finally, Chapter two paves the way for seeking perceptions of stakeholders of strength and conditioning programs.

Chapter three explains the in-depth qualitative methodology used to answer the research questions and explains the rationale for using qualitative research. Included in this chapter are the following components: a list of participants; the researcher’s role; the data collection methods; the data management system used; the data analysis system used; and the explanations of research validity, and finally, the timeline of the study.

Chapter four provides a clear arrangement and presentation of the results. The chapter illustrates the perceptions of the participants as they relate to the research questions in general and the standardized interview questionnaire specifically. Chapter four is divided into six primary sections: (a) perceptions about strength and conditioning programs, (b) mission statements, (c) organizational infrastructure, (d) resources, (e) communication, and (f) foreseeable trends in strength and conditioning programs within the next 10 years. Chapter four also includes additional information gathered through
source triangulation methods to help validate the interpretations presented within this chapter.

Chapter five includes a summary of the study and a discussion regarding the findings of this study. This discussion is based on the data presented in Chapter four and its relation to the theoretical framework in Chapter two. Chapter five also presents recommendations for future study. These recommendations are based on the data that was collected, transcribed, and presented in Chapter four. The recommendations are provided for individuals and organizations that wish to conduct similar studies on bureaucratic organizations, athletic departments, or strength and conditioning programs.
Chapter Two

Literature Review

This chapter provides historical background information that has informed the development of strength and conditioning programs in intercollegiate athletics in the United States. This literature review details the advancements associated with strength and conditioning programs, and it provides insight into the current knowledge base regarding the ways that institutions of higher education have engaged in various bureaucratic processes. More specifically, this literature review focuses on information about the ways in which various constituents within institutions of higher education comprise bureaucracies and are subject to problematic issues. The literature review culminates in a discussion about members of athletic departments (specifically athletic directors and strength and conditioning coaches) and their perceptions from within a bureaucratic structure.

Currently, all 120 National Collegiate Athletic Association (NCAA) Division I Football Bowl Subdivision (FBS) universities in the United States have formally structured strength and conditioning programs, and that number has been growing. Strength and conditioning programs are resource intensive in that they require specialized facilities, equipment, staffing, maintenance, and upkeep. All strength and conditioning programs are administered by a head strength and conditioning coach and his/her assistants. Both male and female varsity student athletes utilize the strength and conditioning programs.
Historical Background/Information

Early History: 5th Century B.C.E. to Mid-1800 C.E.

Historically, strength and conditioning programs can trace philosophical roots back to approximately the 5th century B.C.E. and through the Roman Empire to early French, German, and British physical education programs; the legacy continues and includes European migration patterns to the United States during the Industrial Revolution. From there, circus strongmen and mass marketers passed the philosophy onto American colleges and universities in an experiment that produced strength and conditioning programs. Student athletes utilize these programs today for the purposes of strengthening their muscles, improving athletic performance, and resisting against injury.

Researchers in the field of muscle physiology use the term “progressive overload,” which, defined simply, refers to the principle whereby athletes increase their strength through the process of gradually increasing the workload during each workout. Progressive overload theory is the scientific and philosophical theory that binds strength and conditioning programs together. Many authors have concluded that it is absolutely imperative to include progressive overload concepts into any successful strength and conditioning program (Arnhiem, 1985; Brzycki, 1995; Darden, 2004; Goulet, 2011; Karpovich & Murray, 1983; Mannie, 2011; Mentzer & Little, 2003; Riley, 1982; Schwarzenegger, 1998). Furthermore, some authors have recognized Milo of Crotona in the 5th century B.C. as the father of progressive overload (Karpovich & Murry, 1983; Riley, 1982; Todd, 1995). Willoughby (1970) wrote, “The wrestler Milo of Crotona is often referred to as the father of progressive resistance exercise. According to legend, Milo built his strength by shouldering and walking with a calf every day until it was fully...
grown. Milo lived in the 5th century B.C. and won the championship six times at Olympia, and seven times at Pythia” (p. 29). Murray and Karpovich (1983) added, “Milo’s principle of gradual progression from a relatively light weight to a heavy poundage is the same one followed today to develop strength and improve physical condition by exercising with adjustable barbells and dumbbells” (p. 3).

Milo’s firmly developed theory was used only in narrative format when referring to the great Olympians, but it was not until the first century when a Roman poet added philosophy to the overload theory. According to Gill (2011) as well as Mentzer and Little (2003), it was Juvenal who coined a popular phrase that resonates and coincides with strength and conditioning programs today. Although the exact time is unknown, Juvenal was an active poet during the time of the Emperor Hadrian (76 A.D. to 138 A.D.). His quotation, *Anima sana in corpore sano*, translated into English as “A healthy mind in a healthy body,” was written in Satire 10 by Juvenal (Gill, 2011). Juvenal was trying to convey that the ideal life consisted of a strong mind combined with a strong body. This philosophy can be found in many mission statements of higher education today and often serves as the basis for strength and conditioning programs. For example, Juvenal’s quotation has been incorporated by the ASICS shoe company into its mission statement and served as a popular quotation often used by former U.S. President Harry S. Truman (Gill, 2011).

Early European universities located in France, Germany, and England infused dumbbell training into physical education together with academic study during the early 1700s, which gave credibility to Juvenal’s “healthy mind in a healthy body” philosophy. According to Dellinger (1999) and Todd (1995), no addition of Milo’s overload theory
was applied. These authors also stated that Archibald MacLaren was the first to infuse Milo’s theory with Juvenal’s philosophy at the British Military Institute and at his training institutes in the 1850s. MacLaren held degrees in medicine and gymnastics, and he published scientific papers in order to help further his life’s mission of building a strength and conditioning community.

While MacLaren’s innovative work in Europe helped advance the strength and conditioning field, The United States also had its own pioneer in Dr. George Barker Windship (Todd, J. 1993), who upon graduating from Harvard in 1848 opened up a practice for his patients that stressed rehabilitative methods using weights. Windship was a widely known lecturer on the topic of symmetrical weightlifting, and he combined Milo’s theory of progressive overload with Juvenal’s philosophy of health. His unfortunate death in 1876, at a young age (42), almost brought an end to the lifting craze. Dellinger (1999) wrote, “Opponents of heavy-lifting seized on the occurrence to publicly debunk the strength is health philosophy with scare tactics. This was sufficient to cripple the health-lift industry/movement, prompting many dyed-in-the-wool lifters to question the longevity factor associated with strength training” (p. 6). If not for one of MacLaren’s students, Eugene Sandow, the lifting craze might have died along with Windship in 1876.

Sandow was an astounding performer and excelled at showmanship whom Brzycki (1995) and Schwarzenegger (1998) have recognized as a crucial figure during the late 1800s and early 1900s in strength and conditioning history. Sandow had learned from MacLaren how to build his body based on the strength principles emphasized in progressive overload theory and built an entertainment show based on his great feats of strength. His shows in Europe were widely successful and entertaining. Schwarzenegger
(1998) wrote, “King George of England appointed Sandow Professor of Scientific
Culture to His Majesty” (p. 5). Sandow believed there was opportunity in the United
States but knew of the myths originated after Windship’s death in 1876. Karpovich and
Murray (1983) wrote, “It was a good thing that the European Sandow’s exhibitions in
America showed a trim, well-proportioned man could be strong, and that in gaining
strength by lifting weights, he retained his Greek-godlike physique” (p. 11). Sandow
paired his successful show with books and opened up gymnasiums to help others train
using his interpretations of progressive overload. According to Dellinger (1999),
Sandow’s success influenced many other strength and conditioning individuals to become
circus side show strongmen. Along with Sandow, these circus strongmen offered the
American public a viable alternative to naysayers of strength and conditioning; however,
Todd (1994) and Dellinger (1999) have noted that the integration of strength and
conditioning programs onto college campuses gave it the credibility it needed for
widespread acceptance. As a byproduct of the interrelationships among intercollegiate
athletics, physical education, and health and fitness, an association between strength and
conditioning programs and intercollegiate athletics naturally emerged on a gradual basis;
however, widespread acceptance took quite some time to develop.

**Modern History: Mid-1800 to 1900**

American Intercollegiate Athletics officially got started in 1852, when a crew race
was organized between students at Harvard and Yale. According to Chu (1985), Harvard
won the contest in the face of Yale protests that graduate students were used to gain the
victory. Nevertheless, the excitement, school camaraderie, and thrill of competition
caused more crew races the next year that included teams from other colleges and
universities, such as Princeton and Trinity College. The attention on intercollegiate sport shifted to baseball in 1859, when Amherst played Williams; both were accused of using professional players to gain an advantage (Chu, 1985). Football, or a game that closely resembled a mixture of soccer and rugby, was the next sport that fostered intercollegiate competition. On November 6, 1869, Rutgers beat Princeton using an old pig bladder as a ball (Crowley, 2006). After that game, football grew to become one of the most popular intercollegiate sports. According to Chu (1985), no other sport, especially in the big universities, created such enthusiasm or increased the prestige of their institution more than football. Duderstadt (2003) added, “Football became one of the few opportunities to bring together growing American University campuses where students, faculty, and alumni became connected by identification with major sporting events and athletic activities” (p. 71). Other intercollegiate competitions in track and field competition were first held in the 1870s, and lacrosse and tennis got their start in the 1880s.

At that time, the students administered governance of intercollegiate sports. Frey (1982) wrote, “The earliest intercollegiate governing bodies were student-initiated, and student-run. Their missions were generally three-fold: to sponsor and conduct championship competition, to outline playing rules, and to determine eligibility criteria” (p. 19). Frey further noted that control was vertical, involving one sport only. Mechikoff (2010) wrote that “this was the beginning of the amateur movement, which was someone who attends college, competes for the love of the sport, and receives no money for their efforts” (p. 269). This amateur movement was in stark contrast to professionalism (pay for play). Mechikoff (2010) and Adelman (1986) both noted that students themselves were responsible for characteristic changes in sports. According to these authors, the
governance of students from early sport helped to define the modern era of college athletics. Adleman (1986) has provided a few examples of some important characteristics of these early sports programs:

1. Organization: Modern sports were formal and institutionally differentiated at the local, regional, and national levels. Pre-modern sports had little or no formality.

2. Rules: Modern sports rules were formal, standardized, and written; rationally and pragmatically worked out and legitimized by organizational means. Pre-modern sport included rules that were simple, unwritten, and based on local customs and traditions; variations existed from one locale to another.

3. Competition: Modern sports, including national and international competition, were superimposed on local contests, and some establish national and international reputations. Pre-modern sporting competition was meaningful only on a local basis and had no chance of gaining a national reputation.

4. Role Differentiation: Through the advent of modern sports emerged the differentiation of professionals and amateurs and a strict distinction between playing and spectating. Pre-modern sports were not concerned with the role of participants (i.e., whether they were professional or amateur), and there was a loose distinction between players and spectators.

5. Public Information: The results of modern sporting events were reported on a regular basis in local newspapers as well as national sporting journals/magazines, and guidebooks. Pre-modern sporting information was limited to the local level and transmitted mostly orally.
6. Statistics: Modern sports published statistics and records on a regular basis and were considered important measures of achievement. Pre-modern sporting statistics were virtually non-existent.

**Through the Decades: 1900-2010**

With the enormous popularity of these student-run activities also came problems in governing intercollegiate athletics. These problems centered around issues such as uniform rules for all, athletics teams that included amateurs and professionals, injuries, and money mismanagement. The brutality of football caused many long-term injuries and some fatalities. According to Crowley (2006), in 1905 alone, 149 serious injuries and 18 fatalities occurred, which caused President Theodore Roosevelt to hold a special meeting with top college representatives in order to address these issues. If the representatives refused, Roosevelt was prepared to abolish football. As a result of this meeting, the National Collegiate Athletics Association (NCAA) was created in 1906 with a mandate to “…consult member institutions on rules of the game, define eligibility, recruiting rules, and define amateur status” (Crowley, 2006, p. 15). As the popularity of intercollegiate athletics grew, so too did information about strength and conditioning, mainly supplied by Eugene Sandow and the circus travelling strongmen strength and health movement. Leistner (1999) wrote, “In the early 1900’s, an organized body of training information was presented to the interested public, mostly as a result of the popularity of the many strongmen and strength performers who toured Europe and the United States at that time” (p. 115). Some of the locations they toured included college campuses, where skeptical physical educators watched.
Nevertheless, as intercollegiate athletics grew more and more businesslike, the students hired alumni and coaches to administer their sports programs. Frey (1982) noted that by 1910, schools had lost most of their authority to alumnus and big corporations, and faculty pushed for major reevaluation of collegiate athletics administration. As a result, college presidents widely integrated intercollegiate athletics into their physical education departments. The faculty played a watchful role, and coaches were hired into the departments as faculty members. Chu (1989) wrote, “In the first third of the twentieth century, most faculty from the newly emergent field of physical education were also given responsibility for intercollegiate sport. Physical educators quickly assumed responsibility over a new curriculum of sports activities and extracurricular intercollegiate teams” (p. 129). One of the first physical educators to listen to the circus strongmen was Roy McLean at the University of Texas. According to Todd (1994), McLean started a weight training class in 1919, which was incredibly successful with students but widely criticized and forbidden by student athletes and their watchful coaches. As McLean’s strength and conditioning program experienced the first wave of regulatory opinion, intercollegiate athletics also experienced additional regulatory issues during this time period.

The early attempts at reform during the 1900s also produced local and regional conferences, which were attended by institutions that were geographically similar and charged with the responsibility of enforcing intercollegiate rules and regulations. Frey (1982) has noted the conferences that were created and had faculty representatives: Southern Athletic Conference (1894), Big Ten (1895), Ivy League (1898), Northwest Conference (1904), Southwest Conference (1907), Missouri Valley or Big Eight (1908),
Rocky Mountain Faculty Athletic Conference (1914), and the Pacific Ten (1915). The creation of conferences eased the tension in academic circles until the Carnegie Report of 1929 was released, claiming that a number of problematic issues within intercollegiate athletics still remained. Duderstadt (2003) claimed that while the report generated debate, no significant progress was made.

Physical education programs played a role in instituting strength and conditioning programs across the United States, but according to Todd (1994) and Dellinger (1999), they happened in different ways from university to university. Dellinger wrote, “Like many cultural trends, the renaissance of weight training began on college campuses across America. Of course, the great discovery concerning resistance exercise was made in slightly different ways from university to university” (p.11).

Following in the footsteps of the University of Texas, the University of Notre Dame began a weight training program in 1935 after an interested priest incorporated progressive overload. Todd (1994) wrote,

Weight training on the campus of Notre Dame owes its existence almost entirely to the famous strongman-priest, Father B.H.B. Lange. Lange personally built or bought virtually every piece of equipment in the extremely well equipped gym and from 1935 to 1969, he enrolled an estimated six thousand regular trainees in his gym. (p. 12)

Lange made these contributions with no official endorsement from the Notre Dame athletic department, and a number of interested varsity athletes trained under his supervision. Dellinger noted that “the esprit de corps that Father Lange brought to Notre
Dame, higher education, and weight training prompts much admiration. The strength and coaching profession truly should regard him as a founding father” (p. 12).

The University of Iowa followed Notre Dame, where in 1943, Dr. McCloy and Dr. Wendler experimented with progressive overload weight lifting using themselves as test subjects. Initially skeptical, and looking to dispel weightlifting, they were quite surprised when they experienced positive results. They immediately submitted the results of their study nation-wide and added weight training classes to their physical education department. Dellinger (1999) and Todd (1995) both have noted that these classes were so incredibly successful that by the late 1950s, the physical education department offered eight different classes each semester in which students received academic credit for participation.

These three Universities (the University of Texas, the University of Notre Dame, and the University of Iowa) helped pave the way for the development of weight training classes in future colleges and universities, but Leistner (1999) wrote that this development did not happen quickly; rather, it took time because of external influences upon higher education: “Through the 1930’s and 1940’s, the United States suffered through a depression and a world war. Training time, available materials, and the perception of the public did not encourage the pursuit of weight training or competitive lifting as a leisure activity” (p. 116). Once WWII ended, more time and resources became available for higher education, intercollegiate sports, and weight training. Todd (1995) and Dellinger (1999) have noted that during the mid-1950s, the following physical education departments added weight training classes to their physical education

The 1950s decade included a regulatory milestone when the American Council on Education and the NCAA’s sanity code proposed more sanctions on universities that did not adhere to or comply with suggested rules and regulations. This changed collegiate athletics because nearly 400 institutions of higher education were under governance of an organization (the NCAA) and, according to Crowley (2006) they were “…expected to follow rules restricting practice time, seasons, and games; post-season competition; curriculum matters and academic progress; financial assistance; and eligibility” (p. 36).

The same decade yielded another significant event, which was the inauguration of the first official strength and conditioning program. In 1958, Alvin Roy administered the first ever strength and conditioning program at Louisiana State University (LSU). The strength and conditioning program involved all student athletes on the football team, not just the ones who were enrolled in the physical education program. Furthermore, Roy was not a college professor, and had no other ties to the university. The Collegiate Strength and Conditioning Coaches Association (CSCCA), Todd (1994), Brzycki (1995), Dellinger (1999), and Leistner (1999) all credited Roy as the first ever strength and conditioning coach.

Roy learned about progressive overload from Bob Hoffman, who owned the York Barbell Company and trained Olympic athletes. Roy trained under Hoffman and competed for the United States after serving in WWII. After the war, Roy opened up a gymnasium in Baton Rouge and trained High School athletes (firmly believing that strength and conditioning programs helped aid varsity athletic competition). In 1957, Roy
approached Paul Deitzel (the head football coach at LSU), and told him that what was missing from his football program was a revolutionary strength and conditioning program. Deitzel declined the offer, as he was aware of the myths that athletes who trained with weights could become too muscle-bound and stiff, and so he was wary of Roy’s suggestion. That year produced a sub-par performance from the LSU Tigers, and shortly thereafter, Roy again approached Deitzel. This time Deitzel accepted Roy’s offer, and higher education’s first strength and conditioning program was initiated. According to the CSCCA (2012), the LSU football team won every game in the 1958 season, and capped it with a national championship.

Roy was not paid for his services, but Deitzel gave much credit to his strength and conditioning program, and Roy was recognized as a pioneer. According to Todd (1994), Roy enjoyed a travelling lecture circuit in 1959 to the University of Alabama, Georgia Tech, the University of Florida, Ole Miss., West Point Military Academy, the University of Tennessee, and the University of Kentucky. He inspired each university to eventually start their own strength and conditioning programs, and assistant football coaches administered these programs. Alvin Roy was quickly hired by the National Football League’s (NFL) San Diego Chargers, who offered to pay Roy for his services.

The higher education landscape experienced some drastic changes during the 1960s, and so did collegiate athletics. According to Duderstadt (2003), the decade produced a spike in popularity for NCAA Division I football and basketball when television deals generated millions of dollars. Television offered entertainment on a national scale to audiences across wide geographical areas and began producing tremendous revenue for intercollegiate sports. It was also during this decade (1966) that
the first sports administration program was developed at Ohio University (Mason & Paul, 1988). The purpose of this program was to develop administrators who could assist with the planning, organizing, directing, and controlling of athletics programs at the professional, intercollegiate, and high school levels (Frey, 1982). Todd (1994) also noted that weight training was increasingly accepted as the following schools added two weight rooms: Nebraska, Stanford, and the University of Illinois in 1960; the University of California at Berkeley, the U.S. Naval Academy, Marist College, and San Jose State College in 1961; Mount St. Mary’s College in 1963; Bloomsburg State College in 1964; and Oregon St. University in 1965. These colleges and universities needed two weight rooms because one was used for physical education students, and the other was used by varsity student athletes. According to Chu (1985), this was the beginning of an important division between physical education programs and strength and conditioning programs; physical education departments could have their own weight room with no interruptions from varsity athletes, and strength and conditioning programs fell under the governance of athletic departments, using their own weight room.

The 1970s also produced some major milestones in the development of strength and conditioning programs at the collegiate level. On a national level, the United States Congress mandated equal opportunities for women in athletics that had been provided for men for decades. This 1972 mandate became known as Title IX (Chu, 1985). Title IX was important because by law it opened up weight rooms for use by female varsity student athletes. This posed as a problem for curious or interested female student athletes, who received little guidance or coaching from assistant football coaches while in the weight rooms. Nevertheless, popularity for weight rooms soared as the myths about
muscle-bound athletes being too stiff for competition gave way to the powerful, agile, strength training student athlete. Leistner (1999) wrote, “By the early 1970’s, almost every major college had a semblance of a weight room and Boyd Epley’s appointment as the nation’s first strength coach at the University of Nebraska propelled the acceptance of weight training as a legitimate tool for athletic enhancement” (p. 117). Epley not only trained football players, but he also trained athletes in other varsity sports at the University of Nebraska, including female athletes (Epley, 2012). Competitors took note and quickly added paid strength and conditioning coaches to their athletic departments. These coaches administered strength and conditioning programs for their varsity athletics teams.

The 1970s produced another major technological milestone as weight room equipment was sold in bulk and in combination for the first time. Leistner (1999) wrote, “In 1970, the field of strength training entered a new era thanks to Arthur Jones, a brilliant, sarcastic, ambitious, and ultimately wealthy man who foresaw the future in weight training much more clearly than anyone who had come before him” (p. 117). Jones invented Nautilus Sports Equipment and was the first to sell the equipment to a mass market of colleges, universities, gymnasiums, and public weight training facilities. Darden (2004) wrote that Jones was incredibly successful and made millions of dollars selling his machines.

The last major milestone during the 1970’s came when Boyd Epley and other prominent collegiate strength and conditioning coaches formed the National Strength and Conditioning Association (NSCA) in 1978. The conference was held on July 28, in Lincoln, Nebraska, where Epley was named president, and six other regional strength and
conditioning coaches were selected. According to Epley (2012), their first mission statement read as follows: “To unify members and facilitate a professional exchange of ideas in strength development as it relates to the improvement of athletic performance and fitness” (p. 1). In attendance were 76 strength and conditioning coaches who were recognized as the original charter members of the association.

In the 1980s, the NCAA signed a television deal with CBS to air exclusive “March Madness” basketball games. According to Duderstadt (2003), this contract spanned from 1984 to 1999 for the staggering amount of $1 billion. When that contract expired in 1999, a new 11-year contract was signed between the NCAA and CBS for $6 billion. This contract brought in $50 million in revenue each year. Conferences also signed multi-year, multi-million-dollar contracts with ESPN (sports broadcasting station). The invention of Direct TV, radio narrowcasting, and the Internet created more exposure and more revenue for intercollegiate sports. Duderstadt also noted that this extreme exposure caused many College Presidents to take a more active role in athletics. In the 1990s and 2000s, college presidents replaced athletic directors as representatives of their conferences and were given exclusive voting rights at annual NCAA conventions. Athletic directors and alumni representatives were relegated to consultative roles (Duderstadt, 2003).

Currently, strength and conditioning programs are viewed by some athletic directors as having a major impact on their overall program. The University of Michigan is an excellent example of this, first by spending just over $1 million in 2007 on a new weight room (Maisel, 2008) and secondly in 2008-09 for violating NCAA rules concerning voluntary/involuntary time spent within the facility (Snyder & Rosenberg,
2010). The National Strength and Conditioning Association’s policies and procedures manual of 1994 provides athletic directors and head strength and conditioning coaches with a guide for administrative duties. This manual outlines and explains program goals and mission statements, program objectives, job titles and descriptions and duties of strength and conditioning staff, policies, and facility administration guidelines. Another contribution was provided by Emry’s (2000) guide, which was specifically designed to assist athletic directors using quantitative methods to measure numerical success of a strength and conditioning program.

This historical overview has illustrated how strength and conditioning programs have been integrated into intercollegiate athletics and how these programs evolved into their current structures. The current higher education landscape reveals that strength and conditioning programs have become historically, academically, and economically linked with intercollegiate athletics.

**Varying Definitions and Purposes of Strength Training Programs**

Among researchers, there is widespread agreement about the purposes of strength and conditioning programs. A number of researchers have indicated that the primary purposes of strength and conditioning programs are (1) to strengthen athletic performance and (2) to provide safety against injury during intercollegiate competition (Aeberg, 1998; Baechle & Earle, 2000; Brzycki 1995; Darden, 2004; Jones 1970; Leistner 1985, 1986, 1999; Mannie, 2004; Mikula, 2005; Riley 1982, 2005; Wolfe, 2004). Additionally, Murray (2007), wrote, “The methods we endorse are based upon the most current literature available, the facts, and our experience. It is our responsibility to provide those methods that stimulate the best gains in the safest and most efficient manner possible” (p.
1. Darden also similarly wrote, “Proper strength training will benefit any athlete, young or old. As a result, he [or she] will be stronger, faster, more flexible, more enduring, and far less likely to suffer injury” (1982, p. 57). Epley (2000) defined the purpose of his strength and conditioning program through the development of a individually specialized mission statement, which stated, “Our mission is to provide athletes the means by which they can train consistently, sensibly, and systematically over designated periods of time, in a safe, clean, and professional environment to help prevent injury and improve athletic performance” (p. 568). All of these authors have offered similar advice and are in general agreement about the purposes of strength and conditioning programs—advice that serves as a foundation for the strength and conditioning community.

**Myths Related to Strength and Conditioning Programs**

Weight training began in the United States around the time of the Civil War. A Harvard-trained physician, Dr. George Barker Windship, was the first to struggle with myths related to strength and conditioning. Critics during that time denounced strength training because they felt it was unhealthy, made the human body too muscle-bound, and resulted in inflexibility. Speaking of that time period, Brzycki (1995) wrote: “Years ago, a well-developed physique was actually viewed as being somewhat freakish and unnatural. In addition, there were fears that lifting weights would reduce flexibility, dull reactions, and ruin skills” (p. 3). In 1862, Dio Lewis, a physical educator, wrote an article titled “The New Gymnastics” in *Atlantic Monthly*. He wrote that lifting weights was just a mania of the times and that it was far inferior to regular exercise. He advocated readers to stick to gymnastics instead.
Dr. Windship dedicated his life and a significant portion of his medical rehabilitative practice to combating these myths surrounding American Society. He was a widely renowned and well-respected lecturer who wrote numerous articles on the benefits of using weights as part of a progressive overload model (progressive overload mentioned in detail below). According to Windship, “The body should be made as strong as possible... with no weak points. It should be balanced and symmetrical with the muscles full and round, and strong, like those of the Farnesian Hercules” (as cited in Todd, 1993, p. 3). According to Todd (1993), Windship also suggested that “training should be systematic... with intensity of the exercise gradually increasing over time. He maintained that workout sessions should never last more than an hour, and that proper rest must be obtained before the next day’s training” (p. 3). Windship experienced enormous success and earned the nickname “The American Samson” and “The Roxbury Hercules” from contemporaries (p. 2) until his unfortunate death in 1876 of a massive stroke. Windship was only 42, and his critics attributed his death to heavy weight lifting (Brzycki, 1995; Dellinger; 1999; Todd, 1993).

There were certain factors that influenced change, which happened across university campuses, and the mass marketing strategies of those involved in strength and conditioning paved the way for the construction and permanent place of strength and conditioning programs.

**Theories of Strength Training**

Strength training and conditioning programs have evolved and advanced based on the development of increasingly sophisticated methods of research and analysis. Each of the following theories focuses on a slightly different aspect of strength training and
conditioning programs and reflects the best practices currently used by most strength training and conditioning professionals. Included here is a discussion of the sliding filament theory, the progressive overload theory, the general adaptation syndrome (G.A.S.) theory, and their contributions to strength and conditioning training programs.

**Sliding Filament Theory**

The sliding filament theory is important to understand at a basic level because it explains the physiological processes of body musculature during exercise. Coulson (2007) has provided an excellent technical explanation of the sliding filament theory:

“The main function of skeletal muscle is to provide movement for the body through contraction. When a muscle contracts, the protein filaments within the muscle fiber slide over one another with the aid of small projections of cross-bridges. This is known as the sliding filament theory” (p. 42). In general, Coulson has suggested that during exercise, the muscles (connected to bone) pull and tug at each other in order to function properly. The muscle fibers recruited to pull and tug at each other are further determined by brain signals and genetic makeup. Riley (1982) pointed out that this theory is significant to any strength and conditioning program: “At present, the most widely accepted theory of muscle fiber contracting is the sliding filament theory” (p. 14). This theory, as Riley and others have suggested, should be understood by members of strength and conditioning community (Brzycki, 1995; Huxley, 1958, 1965).

**Progressive Overload Theory (POT)**

A second theory that has influenced strength and conditioning programs in universities and colleges across the United States is the progressive overload theory (POT). A precise scientific definition of the progressive overload theory can be found in
the National Strength and Conditioning Association’s textbook *Essentials of Training and Conditioning* (2000) by Conroy and Earle:

Because bone and connective tissue respond to mechanical forces that threaten the supporting structures of the contracting musculature, the principle of progressive overload—progressively placing greater-than-normal demands on the exercising musculature—applies to increase bone mass as well as training to improve muscle strength. Although the maximal strength of bone and connective tissue is maintained well above the voluntary force capabilities of the associated musculature, these tissues respond to dramatic or unusual forces that are repetitively presented to the skeleton. The adaptive response is to ensure that the forces do not exceed a specific critical level that would place the bone or connective tissue at risk for damage. (p. 62)

In simpler terms, strength is increased by increasing the weight upon athletes’ musculature. When this happens, the body adapts, and if given the proper amount of rest and nutrition, it then produces increased strength and power output.

Many professionals involved with strength and conditioning programs have confirmed the value of the progressive overload theory in terms of its contribution to strength training and conditioning programs (Arnhiem, 1985; Brzycki, 1995; Goulet, 2011; Mannie, 2011; Mentzer & Little, 2003; Mikula, 2004; Schwarzenegger, 1998). In the book *Weight Training In Athletics*, Murray and Karpovich (1983) wrote the following: “Though there is no unanimous agreement regarding the details of training, there is one agreement in principle: if you want to develop strength use the overload method” (p.38). As written above, professionals involved with strength and conditioning
should understand this theory and how to apply it. Logically, Athletic Directors should have the perception that their Strength and Conditioning Coaches know the progressive overload theory and how to apply it.

**General Adaptation Syndrome (GAS)**

A third component in the triad of strength training and conditioning theories is the general adaptation syndrome (GAS) theory. The GAS theory synthesizes the processes of the previous two theories that explain muscle contraction and the progression of weight upon that contraction. Dr. Hans Seyle as first coined the term “general adaptation syndrome” when he wrote about it in his book *The Stress of Life*. Seyle’s (1978) book examined the scientific response of the body to outside stress (i.e., training with weights). Mannie (2011) condensed Seyle’s GAS theory into a comprehensive explanation consisting of three stages of stress that occur in strength and conditioning programs:

- **Stage I:** In the initial stage of stress, the physiological demands placed on muscle tissue via strength training causes a certain degree of damage and micro trauma. Keep in mind that this is a natural occurrence and it is usually a precursor to growth over time.

- **Stage II:** In response to these stressors, the body’s internal regulatory systems defend themselves from the onslaught via compensatory adaptation in the form of increased strength and genetically determined grades of hypertrophy. If attention is paid to proper nutritional recovery strategies, a gradual, progressive ascent can be achieved at a rate and to a level that are consistent with each individual’s growth potential.
Stage III: You’ve now entered the danger zone. Prolonged stress in the absence of a needed recovery and growth window results in not only diminishing returns, but eventually to a reversal and loss of the gains made to that point. All training programs must be underpinned with a multi-pronged strategy that acts as a safety net for abating this stage. (p. 1)

These three stages have been supported by Mikula (2004) and help explain how to understand muscle contraction (the sliding filament theory) and how to use progression (the progressive overload theory), thus combining these two theories in a unified approach. More specifically, the GAS theory cautions strength training and conditioning professionals to ensure athlete safety and strength effectiveness.

Mentzer (2003) also has written about the importance of understanding the GAS theory: “Physical exercise is obviously a stressor. It’s my belief that we can apply Seyle’s concept of the G.A.S. to our understanding of bodybuilding science and thereby make our bodybuilding training much more productive” (p. 70). Strength and conditioning coaches who know and understand how their athletes’ bodies react to the stresses of exercise for the sake of safety assure effectiveness in an athletic department program.

**Components and Principles of Strength Training Programs**

Strength and conditioning programs reflect differences in philosophies, applications, physical structures, and practices. However, there are also many components and principles reflected in the literature that suggest at least some commonalities and familiar resemblance within NCAA Division I programs. The American College of Medicine (ASMC, 2006) has provided an example of components that should be included in every strength and conditioning program: cardiovascular
endurance, muscular strength, muscular endurance, body composition, and flexibility. Coulson (2007) has provided in-depth research and application guidelines regarding each of the ASMC’s suggested components, one of which is cardiovascular endurance: “Cardiovascular endurance is the ability of the heart and lungs to deliver oxygen to the working muscles (sometimes known as aerobic capacity) and for the muscles to use this oxygen to generate work” (p.152). Since much of intercollegiate competition demands a peak performance of cardiovascular endurance, Coulson has suggested that incorporating this component into a strength training and conditioning program is imperative.

Muscular strength is also an important factor to include in overall components of strength and conditioning programs. In his book Modern Principles of Athletic Training, Arnheim (2007) has provided two important definitions. The first definition is of the term “strength”: “Strength is defined as the capacity to exert force or as the ability to do work against resistance” (p. 80). Put more plainly, athletes exert force onto an object (or exercise) and resist that object (typically a weight) for a specified duration of time. A second, more specific term Arnheim has defined is “muscular strength”: “Muscular strength is the maximum amount of force that a muscle or muscle group can generate” (p. 153).

The ASCM also has included muscular endurance as an important component of strength training and conditioning in its 2006 guidelines. Research has indicated that programs focusing on muscular endurance include the following elements: (1) intensity of exercise (Aeberg, 1998; Baechle & Earle, 2000; Brzycki, 1995; Darden, 1982, 2004; Mentzer & Little, 2003; Riley, 1982), (2) volume (Aeberg, 1998), (3) duration (Aeberg 1998; Baechle & Earle, 2000), (4) frequency (Aeberg, 1998; Baechle & Earle, 2000;
Darden, 1989, 2004; Mentzer & Little, 2003; Riley, 1982), (5) specificity (Arnheim, 1985; Brzycki, 1995; Mentzer & Little, 2003), (6) adaptation (Mannie, 2011; Mentzer & Little, 2003), (7) progression (Arnheim, 1985; Darden, 1989; Mentzer & Little, 2003; Murray & Karpovich, 1983), and (8) rest (Aeberg, 1998; Arnheim, 1985; Baechle & Earle, 2000; Brzycki, 1995; Darden, 1982, 2004; Mannie, 2011; Mentzer & Little, 2003; Riley, 1982).

In addition to the ASCM, Coulson (2007) also has deemed each of these components necessary for effective strength training and conditioning programs. Based on these components, he has identified the benefits of including them in all strength training and conditioning programs: “There are many benefits of resistance training that vary slightly depending on the type of training. The benefits include the following: increase in muscle mass, which increases resting metabolic rate; increase in bone mass; reduced risk of osteoporosis; increased glucose tolerance; increase in joint integrity; improved posture; reduction in back pain; reduced risk of hypertension; and reduced risk of diabetes” (p. 154). In addition to these benefits, the ASMC (2006) has listed better body composition and flexibility as a by-product of strength and conditioning programs. Coulson (2007), Darden (2004), and Riley (1982) also have stated that athletes stand to benefit from professionals who train and coach them how to maintain a controlled exercise performance with a full range of motion and at the same time ensure safety.

Available research has suggested that strength and conditioning professionals support a combination of cardiovascular endurance, muscular strength, muscular endurance, and proper body composition and muscular flexibility through a balanced strength routine. Coulson (2007) has suggested that “when designing any exercise
program it is important to remember certain fundamental factors that can have an effect on the outcome of the program. These factors are called principles of fitness. These principles must be taken into account with all individuals in relation to the design of a training or exercise program” (p. 159). Coulson has noted the importance of incorporating these principles into any strength and conditioning program, and Mentzer (2003) has agreed: “A principle, properly defined, is a proposition that claims to be a correct description of some aspect of reality and/or a guide for successful human action” (p. 31). Based on current literature, the principles of fitness are essential to incorporate into any strength and conditioning program for college athletes.

**Strength Training Program Organization**

Strength and conditioning programs are organized on an individual basis according to the goals that strength and conditioning coaches believe individual athletes must have for overall success. However, the National Strength and Conditioning Association offers very basic literature to help with this process. “Designing a resistance training program is a complex process that requires the recognition and manipulation of seven variables: (1) needs analysis, (2) exercise selection, (3) training frequency, (4) exercise order/sequence, (5) training load and repetitions, (6) volume, and (7) rest periods” (Baechle & Earle, 2000, p. 396). According to Riley (1982), addressing these basic variables can help to organize a strength and conditioning program: “Everyone who wants to develop muscular fitness should engage in a strength training program that produces the best results, consumes the least amount of time, and prepares the athlete to perform in his specific event. The methods used to organize a program for strength training should focus on and accomplish these objectives” (p. 97). Clear and concise
objectives help to organize a strength and conditioning program, and focusing on these variables accomplishes these goals.

**Important Roles of Strength Training Programs**

Strength and conditioning programs represent just one small component within a large number of programs that exist under the umbrella of higher education. Tracing the evolution and development of strength and conditioning programs illustrates the relationship between the goals of these programs and the educational philosophy of higher education. Tracing this development also illustrates from a macro perspective the functional role that strength and conditioning programs have played in colleges and universities. Duderstadt (2003) wrote, “Public colleges and universities are frequently caught in a web of state governance, exercised through legislative controls, state governing or coordinating boards, and statewide systems of higher education. Although such external forces can have considerable impact on athletic mission, available resources, and quality of a university, they rarely intrude into the operation of specific activities such as intercollegiate athletics” (p. 96). As Duderstadt has pointed out, governance in higher education is fraught with many complexities, but these complexities have been somewhat removed from athletics in general and, particularly, strength training programs.

In one form or another, higher educational systems adhere to organizational principles that apply to all social organizations. Selznick (1948) and Anderson (1968) wrote that all educational social systems develop a structural mechanism to provide for their maintenance and continuity. Walton (1959) added, “Because organizations produce goods or services that are consumed by society, a structure must be established that
permits the organization to identify social needs accurately, translate them into organizational objectives, and mobilize resources for their production” (p. 22). Walton’s statement also applies to educational organizations. Anderson (1968) noted the importance of the issue of control in organizational mechanisms: “The resources utilized in the attainment of goals are the factors of production, land, labor, and capital. Within complex organizations the problem of control is a direct result of the needs to coordinate activities that have been broken down into sub-units so that they can be performed by a group of employees” (p. 2). An example of this can be seen in the ways that colleges are organized into departments, such as the department of intercollegiate athletics.

In addition to the principles that govern the organization of institutions, the functions of organizations also can be identified by certain characteristics. Weber (1947) identified 10 distinguishing characteristics of any rational-legal bureaucratic structural model (p. 333):

1. They are personally free and subject to authority only with respect to their impersonal official obligations.
2. They are organized in a clearly defined hierarchy of offices
3. Each office has a clearly defined sphere of competence in the legal sense.
4. The office is filled by a free contractual relationship. Thus in principle, there is free selection.
5. Candidates are selected on the basis of technical qualifications. In the most rational case, this is tested by examination or guaranteed by diplomas certifying technical training, or both. They are appointed, not elected.
6. They are remunerated by fixed salaries in money, for the most part with a right to pensions. Only under certain circumstances does the employing authority, especially in private organizations, have the right to terminate the appointment, but the official is always free to resign. The salary scale is primarily graded according to rank in the hierarchy, but in addition to this criterion, the responsibility of the position and the requirements of the incumbent’s social status may be taken into account.

7. The office is treated as the sole, or at least the primary, occupation of the incumbent.

8. It constitutes a career. There is a system of promotion according to seniority or to achievement, or both. Promotion is dependent on the judgment of superiors.

9. The official works entirely separated from ownership of the means of administration and without appropriation of his position.

10. He is subject to strict and systemic discipline and control in the conduct of the office.

Many authorities have suggested that a general hierarchy in higher education helps characterize its bureaucratic organization (Anderson, 1968; Blau, 1994; Birnbaum, 1988; Selznick 1948; Walton 1959; Weber, 1947, 1958, 1973). Many forms of this hierarchy can be found in the organizational charts of educational institutions. The department of intercollegiate athletics can be found on these organizational charts as follows (starting with strength and conditioning programs at the very bottom, and concluding at the top with the board of trustees): (1) strength and conditioning programs fall under the governance of the head strength and conditioning coach; (2) the head
strength and conditioning coach falls under the governance of the head athletic director (who relies heavily on opinions of his/her associate athletic directors and other varsity coaches); (3) the head athletic director falls under the governance of college presidents, who rely on athletic directors and faculty advisers for internal success and the conference commissioners and NCAA for external success; and (4) college presidents fall under the governance of their board of trustees, who rely upon their president to initiate goals and directives in compliance with institutional missions in order to ensure successful higher educational operations (Chu, 1985, 1989; Duderstadt, 2003; Mason & Paul, 1988).

Through formalized bureaucratic governance, a chain of command provides a method by which to understand exactly how strength and conditioning programs contribute to the overall goals of higher education.

Duderstadt (2003), Birnbaum (1988), and Blau (1994) refer to intercollegiate athletics as an organization, which characteristically falls under Max Weber’s bureaucratic model of organization. Blau described bureaucracy in higher education in relation to the type of organization designed to accomplish large-scale administrative tasks by systematically coordinating the work of many individuals (1956). Birnbaum (1988) wrote that “bureaucratic structures are established to efficiently relate organizational programs to the achievement of specified goals. When behavior is standardized, the activities and processes of organizations are made more predictable, so that the organization can become more efficient and effective” (p. 107). One can see this organizational structure very easily when analyzing colleges in general and intercollegiate athletics in particular. In fact, as Anderson (1968) wrote, “The universal appeal of the bureaucratic type of administration is evidenced by the variety of diverse
institutions--industrial, voluntary, political, educational, religious, and governmental--which have adopted this structure” (p. vii). Weber’s translators, Gerth and Mills (1958) added that

the decisive reason for the advance of bureaucratic organization has always been its purely technical superiority over any form of organization. The fully developed bureaucratic mechanism compares with other organizations exactly as does the machine with the non-mechanical modes of production. Precision, speed, unambiguity, knowledge of files, continuity, discretion, unity, strict subordination, reduction of friction and of material and personal costs--these are raised to an optimum point in strictly bureaucratic administration, and specifically in its monocratic form. As compared with all collegiate, honorific, and a vocational forms of administration, trained bureaucracy is superior on all these points. (p. 214)

Although Weber may not have been commenting on intercollegiate athletics specifically, it must be noted that intercollegiate athletics fit into the overall picture of higher education through the organizational methods of bureaucracy. Through an understanding of the system, administrators can use these organizational methods to examine and evaluate the standard operations of their programs.

**Budgetary Revenues and Expenditures and Resources Available for Strength and Conditioning Programs**

At most colleges and universities, strength and conditioning programs are funded through the athletic department budget. Any revenues, expenditures, and other resources used are typically in compliance with allotted monetary configurations. According to
Marot (2011), more often than not, athletic department budgets have reported that net expenditures exceed net revenues. However, according to Fulks (2011), “A total of 22 athletics programs in the Football Bowl Subdivision (FBS) reported positive net revenues for the 2010 fiscal year, which represents an increase from 14 percent in 2009. The gap between the profitable programs and the remainder continued to grow, however a bit more slowly” (p. 8). Gerdy (2006) has attributed some of the deceleration of this growth to increased media coverage: “Athletics, particularly big-time NCAA Division I athletics, is extremely popular. Media coverage through newspapers, television, and Internet is extensive. The result is that college athletics’ profile within our national consciousness has risen to an extraordinary level” (p. 14). Here, it is showing that athletics is growing to a high level of national recognition, and that athletic department budgets and resources are adjusting to it.

Many authors have agreed that these growing athletic budgets are comprised of some common characteristics, including primarily revenues (allocated and generated revenues) and expenses (direct and indirect) (Duderstadt, 2003; Fulks, 2011; Gerdy, 2006; Sperber, 2000). Allocated revenues include student fees; direct institutional support; and indirect support, which includes payment of utilities, maintenance costs, and support salaries. Generated revenues include ticket sales; radio and television receipts; alumni contributions; guarantees; royalties; NCAA distributions; and other minor events, such as fundraiser events. Expenses can be grouped according to those paid by the athletic department and those paid by outside parties. Common expenses include the salaries of coaches and administrators, student scholarship aid, travel expenses, facility
maintenance, insurance, and utilities. The net results provide administrators with the information to determine whether expenses or revenues exceed budgetary expectations.

Even though some athletic departments have experienced commonalities related to their recently burgeoning growth, there are many characteristics that make each athletic department budgets different. Fulks wrote, “No two institutions operate in identical environments or under identical circumstances. The varying sizes of institutions and their budgets, as well as the market within which the institutions operate, may have dramatic effects on financial results. In addition, there are inherent differences in fiscal demands and resources of public institutions and those of private institutions” (p. 12). Because of these numerous differences, it has been difficult to estimate specifically the amount of how much revenues generated and expenses incurred by each specific program; however, Fulks has provided a category for strength and conditioning programs and identified more specifically where they fit into athletic budgets: “Revenues and expenses which are not specifically related to men’s or women’s programs have been classified as non-gender or, in some cases, administrative. Examples of such expenses would be those related to academic support centers or training facilities utilized by all student athletes” (p. 12). Fulks distributed a budgetary survey to all Division I FBS programs, and his NCAA Revenues and Expenses report resulted in a 100% response rate. All respondents classified strength and conditioning programs under non-gender or administrative sections for their budget. Barr (2002) recognized strength and conditioning programs as part of a “line item” budget, which is “a specific category of expenses within an operating budget of the institution or a unit” (p. 108). Strength and conditioning
programs draw appropriate monetary funds from other programs within the department, such as football, basketball, and other programs.

**Factors Influencing Perceptions of Strength Training Programs**

A variety of factors have influenced the perceptions of strength training and conditioning programs among collegiate stakeholders. These factors have included an emphasis on empirical research, the advent of mass manufacturing, and technological advancements. As these factors have been initiated and incorporated into strength and conditioning programs, they each have influenced how higher education constituents have perceived strength training and conditioning programs.

**Empirical Research**

One factor that has influenced the perception of strength conditioning programs is the introduction of empirical measures. In 1919, Roy McLean was one of the first faculty members to initiate and develop a credit-bearing class in weight lifting at the University of Texas at Austin. According to Todd (1994), “At that time, the coaches of various sports forbade their athletes to even touch the weights, but McLean, through tests and measurements at the beginning and end of each semester, proved to the satisfaction of his department and his students that barbell training produced measurable and desirable results” (p. 15). McLean’s efforts to introduce empirical research and evidence-based practices to strength and conditioning programs challenged existing perceptions about the nature and value of strength and conditioning programs within higher education.

At the University of Iowa in 1943, Dr. C.H. McCloy and Dr. Arthur Wendler put themselves through a resistance-training program to test the hypothesis that weight training reduced flexibility and that as a result it produced poor coordination. These
researchers found that through empirical evidence, resistance training did not reduce either flexibility or coordination. “This early interest on the part of these faculty members led to a great deal of valuable research at the University of Iowa. All this research substantiated the empirical findings of Dr. McCloy and Dr. Wendler” (Todd, 1994, p.12). Through these and similar empirical approaches aimed at understanding more about strength training programs, the physical education department accepted strength and conditioning methods and infused them into its program.

Dr. Peter Karpovich was also a very influential researcher in the field of physical education and exercise science. In 1958, as Todd has noted, Karpovich attended a Springfield College weight training demonstration. At that time, Karpovich believed the myth that weight training produced muscle-bound, inflexible athletes who could not effectively engage in sporting activities. To his amazement, he found the opposite, and “Karpovich began a series of research projects, which became very influential in demonstrating the falseness of the claim that the muscles of weight lifters were bound, stiff, and inflexible” (Todd, 1994, p. 11). He also suggested in his 1983 book Weight Training in Athletics (with Jim Murray) that all colleges should have a strength and conditioning program for their varsity athletes. Karpovich changed his viewpoint and eventually supported strength and conditioning programs as an essential ingredient in shaping successful athletics programs (Karpovich & Murray, 1983).

Many university physical education departments were influential in producing early research that substantiated the productive results of strength training with weights and conditioning. According to Todd (1994), dissertations and theses were written on the subject as early as 1951, at the University of Maryland; 1955 at Stanford University;
1960 at the University of Illinois; and 1961 at the University of California at Berkley and San Jose State College. These programs helped to pave the way for more physical education departments to conduct important research, which eventually came to be known as “exercise science.”

By the 1970s, exercise science had established a solid foundation in the higher education community as a legitimate contributor to the improvement of college athletics. The 1974 Colorado Experiment provided additional evidence that strength training and conditioning programs were important and also marked an important milestone in the evolution of their popularization. Darden explained that this experiment helped to validate the use of machines, which in turn, could be sold to a mass market in bulk (2004). Darden also conducted research with Arthur Jones, Dr. James Peterson, and Dr. Kenneth Cooper at West Point Military Academy in 1975. These research efforts helped to prove that myths about the ineffectiveness of strength and conditioning were just that. Many studies have been conducted since the 1970s, which also have helped advance the scholarship base and provide a vehicle to disseminate information about the effectiveness of strength and conditioning programs for varsity athletes.

**Mass Manufacturing and Technological Advancements**

A second important factor that influenced the perceptions of strength and conditioning programs among collegiate stakeholders was the advent of mass manufacturing. Many authors have credited Eugene Sandow (Black, 2009; Brzycki, 1995; Dellinger, 1999; Schwarzenegger, 1998), Charles Atlas (Black, 2009; Schwarzenegger, 1998), Bob Hoffman (Black, 2009; Dellinger, 1999; Fair, 1987; Leistner, 1999; Murray & Karpovich, 1983; Todd, 1994), Joe Weider (Fair, 1987;
Murray & Karpovich, 1983; Schwarzenegger, 1998; Todd, 2005), and Arthur Jones (Black, 2009; Brzycki, 1995; Darden, 2004; Dellinger, 1999; Leistner, 1999) as individuals who have been instrumental in advancing strength and conditioning programs through mass marketing and manufacturing.

Eugene Sandow was a travelling strongman during the late nineteenth century and the early twentieth century who influenced marketing and mass media in the United States by performing feats of strength. Schwarzenegger (1998) recognized Sandow as a catalyst for combating myths surrounding strength and conditioning: “At the end of the nineteenth century a new interest in bodybuilding arose, not muscle just as a means of survival or defending oneself; there was a return to the Greek ideal --- muscular development as a celebration of the human body” (p.3). His popularity stemmed from his attractive looks; muscular body; athletic feats on stage; and ability to successfully market his books, gymnasiums, and workout equipment (Black, 1998; Brzycki, 1995; Dellinger 1999; Murray & Karpovich, 1983). Schwarzenegger added: “Due largely to Sandow’s popularity, sales of barbells and dumbbells skyrocketed. Sandow earned thousands of dollars a week and created a whole industry around himself through the sale of books and magazines” (1998, p. 5). Through Sandow’s mass media exposure, other pioneers began to envision the potential for financial success in the strength and conditioning community. One of those pioneers was Charles Atlas.

Charles Atlas attended one of Sandow’s New York shows when Sandow performed his feats of strength, and it affected him profoundly, because as a youth, Atlas had been bullied. The teenage Atlas began lifting weights but favored a different style of lifting (commonly known by exercise scientists now as isometric contraction combined
with varied ranges of motion). During the 1920s, Atlas built an impressive physique and posed for many statues. “He posed as George Washington for Square Park, Civic Virtue in Queens Borough Hall, Alexander Hamilton in the nation’s capital, Dawn of Glory in Brooklyn’s Prospect Park, and Patriotism for the Elk’s national headquarters” (Black, 2009, p. 1). Atlas also entered and won Bernarr MacFadden’s Most Beautiful Man Contest in 1921 and 1922. His fame grew, and in 1928-29, Atlas decided to market his strength program and called it Dynamic Tension. From the early 1930s through the early 1970s, his marketing scheme was widely successful (Black, 2009; Fair, 1987; Schwarzenegger, 1998). The mail-order Dynamic Tension newspaper and comic book advertisement depicted a young man named Mac on the beach with his girlfriend enjoying the hot summer sun, when a buff lifeguard came up and stole her away by insulting Mac’s puny muscles and kicking sand in his face. Oddly enough, this experience actually happened to Atlas as a teenager. The famous lines from the advertisement were “Hey Skinny,” “You’re just a 97-pound weakling” and “Dynamic Tension will make a man out of Mac” (Black, 2009, p. 1). Atlas’s program was a marketing success and made him a millionaire. However, Atlas’s program had had three major opponents, each of whom contended that using weight equipment was superior to Atlas’s program. These three individuals were Bob Hoffman, Joe Weider, and Arthur Jones, and they took the strength and conditioning mantle in marketing equipment, magazines, and programs within the strength and conditioning community.

Bob Hoffman purchased the Milo Barbell Company (established in 1903) from Alan Calvert in 1934 and moved the company to York, Pennsylvania. He renamed it the York Barbell Company, which produced barbells and weights in mass. According to
Murray and Karpovich, Hoffman was convinced that weight training could improve the performance of athletes and trained Olympic athletes, who were very successful (1983). Fair (1987) wrote that many American Olympian athletes travelled to York, Pennsylvania, to train: “From the Paris world championships in 1946 to the Melbourne games in 1956, the United States captured seven (out of eleven) world team titles and 38 (54%) of the individual titles; and though placing second to the Soviet Union from 1957-1960, America still showed potential for regaining its superiority” (p. 164). Hoffman was also widely recognized from his publishing abilities. He published the magazine *Strength and Health* in 1932, which advocated strength training for athletes and was considered a guideline for how to use barbells for resistance exercise. With his vast distribution of barbells and his magazine, Hoffman helped to popularize strength and conditioning to a wider base of the country. However, his contribution and significance ended when Joe Weider started a rival publishing business.

Joe Weider has been credited by many authors as having a major influence upon the strength and conditioning community through his bodybuilding contests and mass production of his magazines, nutritional supplements, and workout programs (Fair, 1987; Murray & Karpovich, 1983, Schwarzenegger, 1998; Todd, 2005). Schwarzenegger (1998) emphasized Weider’s contributions to the strength training and conditioning community:

Any mention of bodybuilding would be incomplete without mention of the contribution of Joe Weider and his magazines “Muscle & Fitness” and “Flex”. Since the early 1940’s, Joe had done more than simply provide good articles and photos detailing bodybuilding competitions, how-to training articles, and
personality profiles of the top physique stars. He also managed to gather and preserve enormous amounts of valuable training information and to use his magazines, books and videotapes to make this information available to one generation of young bodybuilders after another. It would be impossible to count the number of bodybuilders who have benefited from Joe Weider’s ideas on training, nutrition, diet, and everything else it takes to make oneself a success in bodybuilding. (p. 40)

Weider also recognized the importance of preserving information and the heritage of bodybuilding for the next generation of strength and conditioning enthusiasts. Todd wrote, “In February of 2004, Joe and Betty Weider provided $200,000 to the Todd-McLean Physical Culture Collection at the University of Texas at Austin, and pledged to endow the collection over the next few years with a total of $1 million” (2005, p. 1). This assured that Weider’s collection would not be lost to time.

Perhaps more than any other individual, Arthur Jones influenced college and university campuses across the nation in the 1970s and 1980s and ushered in the mass production of strength and conditioning equipment. Leistner (1999) wrote that: “In 1970, the field of strength training entered a new era thanks to Arthur Jones, a brilliant, sarcastic, ambitious, and ultimately wealthy man who foresaw the future in weight training much more clearly than anyone who had come before him” (p. 117). In 1970, Jones had built a machine he called the Blue Monster, which, according to Darden, contained four different machines all combined into one big machine, thus the name “Blue Monster.” Soon after, Jones realized that the monster was too big to ship and sell, so he redesigned the monster into 20 different “stand alone” machines and named his
company the Nautilus Company. Picking up on Weider’s success, Jones began printing Nautilus High-Intensity publications in 1973-74, featuring brochures, catalogs, advertisements, and a magazine, to accompany his workout machines. Darden wrote, “More than 20 different Nautilus machines were now being manufactured, sold, and shipped throughout the United States. Bodybuilders, football players, and medical doctors were showing up in Lake Helen, Florida on a weekly basis to learn more about high-intensity training” (p. 28). Darden (2004) further wrote that the 1973 NFL Champion Miami Dolphins (the only team to date that has achieved an undefeated season, including all pre-season, regular season, and playoff games), attributed some of their success to using Nautilus machines and Nautilus training principles. Other colleges and professional sports teams who were first in line to buy into the machines and philosophy included the Cincinnati Bengals, Houston Oilers, Boston Celtics, New York Yankees, Cincinnati Reds, University of Alabama, University of Notre Dame, University of Texas, and Duke University. Jones’s mass-marketing wizardry made him very successful and served as a blueprint for all companies in the strength and conditioning community, such as Hammer, MedX, and Olympic, to name a few.

**Birnbaum’s 10 Issues with Bureaucratic Organizations in Higher Education**

There is an aura of ambivalence and confusion when it comes to measuring the perceptions of stakeholders in intercollegiate athletics in general and strength and conditioning programs specifically. Though many collegiate institutions of higher education (including intercollegiate athletics) subscribe to Weber’s model of organizational bureaucracy to ensure efficiency and success, other authors have identified
problematic issues with this model--primarily problems with ambivalence and confusion. In fact, Birnbaum (1988) listed ten categorical issues with bureaucratic systems of higher education in general: (1) governance structure and interaction; (2) dualism of controls; (3) clarity and agreement on organizational mission and management; (4) power, compliance, and control; (5) institutional and organizational constraints; (6) institutional and environmental change; (7) decentralization; (8) inflexibility of resources; (9) confusion at organizational levels; and (10) problems of leadership. If Birnbaum’s categorical issues describe higher educational bureaucracies in general, then this study specifically uses these same categorical issues (measured through analyzed perceptions) to determine whether there are organizational issues with bureaucratic athletic departments in relation to their strength and conditioning programs.

Birnbaum’s (1988) first issue with bureaucratic organizations in higher education is governance structure and interaction. He wrote, “There is much confusion between roles of State, Board, President, Administrators, and Faculty” (p. 4). One of Weber’s key characteristics of bureaucratic organization is to grow and produce more goods for a demanding society (Weber, 1958). In response to unilateral decisions made within institutions about structure, function, and organization, many authors have questioned if this top-down management style is best for higher education institutions (Besse, 1973; Birnbaum, 1988; The Carnegie Foundation for the Advancement of Teaching, 1982; Veblin, 1957). As this issue applies specifically to strength and conditioning programs, the question arises about whether top-down governance from head athletic directors, associate/and or assistant athletic directors, head varsity coaches, and even assistant varsity coaches serves the best interests of their strength and conditioning program.
Especially when looking at specific issues, problems, or concerns that strength and conditioning programs face.

The second issue of bureaucratic organizations in higher education that Birnbaum has identified is reflected in the following question: Does the dualism of control add to ambivalence and confusion in higher education? Birnbaum (1988) wrote, “If a college is compared to a business firm, it is possible to consider the confused relationships between boards, administration, and faculty that we have just discussed as reflecting disorganization, willfulness, or the pursuit of self-interest in preference to college interests” (p. 9). Anderson (1968) agreed that “the organization’s members bring with them diverse experiences, training, and attitudes” (p. 6). Corson (1960) saw this as a form of dualism of controls and noted that this resulted in different patterns of structure delegation (1960). Could it be possible that some administrators in intercollegiate athletics perceive their strength and conditioning program with little interest and see very little impact, while other administrators within the same department see just the opposite? Further, could these perceptions affect aspects of organization, structure, or function of strength and conditioning programs?

The third issue of bureaucratic organization in higher education that Birnbaum has mentioned is the clarity and agreement on organizational mission and management. Birnbaum wrote, “As colleges and universities become more diverse, fragmented, specialized, and connected with other social systems, institutional missions do not become more clearer; rather they multiply and become sources of stress and conflict rather than integration” (p. 11). Anderson (1968) wrote that within bureaucracies, human interests can frustrate efficiency because functionality of a program does not always
coincide with organizational goals. To date, no research has been conducted that
measures perceptual clarity within athletic departments from program to program. Gross
and Grambsch (1974) wrote that the problem is not that institutions cannot identify their
goals but rather that they simultaneously embrace a large number of conflicting goals.
Duderstadt (2003) agreed when he wrote,

Today, athletic departments are operated at arm’s-length, similar to university
hospitals or residence halls, rather than like core academic activities such as
teaching departments, research centers, or most extracurricular activities. This
more independent financial status has led in many instances not only to different
rules and policies governing athletics, but management values and cultures that
depart quite significantly from those of the academic core of the university. (p. 87)

Birnbaum’s fourth issue of bureaucratic organization deals with power,
compliance, and control. Birnbaum (1988) wrote, “Power is the ability to produce
intended change in others, to influence them so that they will be more likely to act in
accordance with one’s own preferences. Power is essential to coordinate and control the
activities and groups in universities, as it is in other organizations” (p. 12). French and
Raven (1959) recognized five different kinds of power exercised in social groups:

1. Coercive power, which is the ability to punish if a person does not accept one’s
   attempt at influence.
2. Reward power, which is the ability of one person to offer or promise awards to
   another or to remove or decrease negative influences.
3. Legitimate power, which exists when both parties agree to a common code or standard that gives one party the right to influence the other in a specific range of activities or behaviors and obliges the other party to comply.

4. Referent power, which results from the willingness to be influenced by another because of one’s identification to the other.

5. Expert power, which is exercised when one person accepts influence from another because of a belief that the other person has some special knowledge or competence in a specific area.

Birnbaum takes issue with the many different forms of power in bureaucratic organizations used in higher education institutions. Birnbaum (1988) wrote, “The exercise of power may cause alienation, and responses by faculty and others to various forms of power in institutions of higher education may pose problems for their organization and administration” (p. 12). What kind of power is exercised with head athletic directors in relation to their strength and conditioning programs? Could any of French and Raven’s power characteristics be used, combined, or avoided in these structural relationships, and what is the impact of this form of relationship?

The fifth issue Birnbaum has identified regarding bureaucratic organization is the institutional and organizational constraints. One major constraint Birnbaum (1988) has mentioned is that increased bureaucracy involves increased specialization among campus administrators. Blau (1994) also has questioned specialization in higher education programs: “Administrative machineries and procedures tend to bureaucratize an organization and the performance of tasks in it. But bureaucratic rigidity and discipline are incompatible with scholarship, which requires a flexible, imaginative approach to
teaching that stimulates student interests and the freedom to explore original ideas and depart from established practices in the pursuit of knowledge (p. 2). Intercollegiate athletics consists of very specialized subunits. The football coaches do not coach basketball or tennis or women’s soccer, etc. However, the strength and conditioning coaches are usually expected to train or have knowledge to strength train and condition athletes in all varsity sports. They go to college to earn specialized degrees, earn required certification from exercise science institutions, and build upon experience. There is little room for mobility for the strength and conditioning coach; he/she serves as a graduate assistant coach, serves as an assistant coach, and serves as a head coach. This could be viewed by some as a constraining role.

Birnbaum’s sixth issue with bureaucratic organization concerns changes in institutional environment. Birnbaum (1988) wrote that environments constantly change and that institutions do not always stay responsive to those changes. He also wrote that while some departments realize these changes, others do not, and the challenge is to recognize these environmental changes and make the best decisions based upon the options. Anderson (1968) also wrote, “Formal and informal structures of organization are affected by pressure from the environment in which it is placed” (p. 6). An example of this in bureaucratic organizations in higher education could be the intercollegiate athletics department adhering to the philosophy that athletics should be run like a business, whereas a student-life department may adhere to the philosophy that college is more about the experience. Specifically, the head strength and conditioning coach may feel the need to add staff to the program because of the need to train more student athletes than before, while the head athletic director may feel that the program is adequately staffed.
Decentralization is Birnbaum’s seventh issue with bureaucratic organization in higher education. Birnbaum (1988) wrote, “The decision-making of subunits sometimes adds to confusion and lack of clarity” (p.17). He calls these quasi-autonomous subunits, where there is a lack of communication, a misunderstanding of organizational rules, or a lack of technical competence in department roles. Intercollegiate athletics has grown over the decades and like true bureaucracies, so have subunits within the department. Decisions are made on a daily basis, and sometimes, as Birnbaum has stated, there can be confusion from unit to unit. If a strength and conditioning coach changes the hours of operation, then that could affect the softball coach’s schedule, for example. Then through a difference of opinion, this problematic scheduling conflict could end up on the desk of the head athletic director, who may have had no previous knowledge of this event.

Inflexibility of resources is Birnbaum’s eighth issue with bureaucratic institutions. Birnbaum (1988) wrote,

The ability to significantly influence their campus through participation in governance is severely constrained by both the paucity of resources available and the short-term difficulties in internally reallocating those resources that do exist. Some important intangible campus resources, such as institutional prestige or attractiveness to students or potential donors, are tied to networks of external relationships that are virtually impossible to change in the short run and difficult to alter even over longer periods of time. (p.17)

Many times, resources are spread throughout campus according to preference and demand (or the power to demand). To date, there are no significant research studies that
investigate how athletic directors feel about their strength and conditioning programs as far as supplying adequate resources is concerned.

Confusion at organizational levels is Birnbaum’s ninth issue with bureaucratic organization. Birnbaum (1988) stated that organizational levels can be a cause of confusion. Thompson (1967) tried to clear up the confusion by composing three levels of responsibility and control in bureaucratic organizations: (1) Technical--includes research, teaching, and service; (2) Institutional--includes those (board and president) who respond to uncertainty of external social forces appropriately; and (3) Managerial--includes administrators who mediate between these two levels. Birnbaum (1988) wrote that in higher education, distinctions among levels of organization can be difficult to maintain. One very important concept to help distinguish between confusion and clarity is what Weber (1947) called bureaucratic rules. Anderson (1967) wrote, “Rules become bearers of authority for the organization, and it is through them that an organization controls and directs the actions of its members as they attempt to reach a given goal. Administrators can control operations in organizations where the work is geographically decentralized or where the formally structured channels of communication are not well developed” (p. 17). The research above (in the Varying Definitions and Purposes of Strength Training Programs section) suggests that by rule, strength and conditioning programs should strengthen and condition the athletes and prevent injury, but there are no other research studies that suggest there could be more or less rules with daily operation, function, and structure of the program. This could add to the confusion between other programs (or subunits) within the intercollegiate athletic department.
The last issue Birnbaum has with bureaucratic organization in higher education concerns questions of leadership. Birnbaum (1988) has provided the following questions for consideration: How important are administrative leaders to college and university performance? Do presidents make a difference? Why does there remain a strong resistance to leadership in higher education? And finally, does Weber’s model of bureaucratic organization influence decision making at universities and institutional departments of higher education? Weber (1947) has warned against charismatic leadership where the leader has extraordinary features and followers have strong beliefs in them. He also has warned against traditional leadership, which rests upon a body of traditions that are accepted as though they had always existed. Weber has advocated the rational-legal system of bureaucratic leadership, in which general rules circumscribe the conduct of officials. Do the features of the rational-legal system mentioned above help to explain the relationship of bureaucratic leadership as it applies to the head athletic director and the head strength and conditioning coach? So far, no research studies have been conducted to analyze these questions. Birnbaum’s 10 issues with bureaucratic organizations help to serve as a guide to analyze intercollegiate athletics programs in general and strength and conditioning programs specifically.

**Perceptions of Stakeholders**

As empirical research, mass manufacturing, and technological advancements altered the landscape and topography of strength training and conditioning programs, the influence of these factors was felt by stakeholders within higher education, such as head coaches, strength training program coaches, athletes, university presidents, and athletic directors. Although an extensive literature review has revealed a lack of documentation
regarding the shared perceptions of university boards of trustees, university presidents, and head athletic directors, a definite chain of communication exists among these stakeholders regarding strength and conditioning programs.

**Board of Trustees**

Members of the board of trustees for most universities are elected individuals who, when in committee, are responsible for the overall vision and guidance of the universities they oversee. Duderstadt (2003) has described their role primarily as one of protection: “The lay board has been the distinctive American device for public authority in connection with universities. The use of lay boards of trustees or regents, comprising of citizens appointed or elected to this role, to govern universities evolved in large measure to protect the university from political interference” (p. 96). He added, “The board members have final authority for key policy decisions. They accept both financial and legal responsibility for the welfare of the institution” (p. 97). In this statement, Duderstadt has noted that the highest level of responsibility and accountability rests on the shoulders of the board of trustees. It represents the highest level of governance in an academic institution. The organizational distance between boards of trustees and governance issues related to strength and conditioning programs is one of the largest in the academic community (Mason & Paul, 1988; Duderstadt, 2003; Chu, 1989; Chu et al., 1985). However, in certain cases where monetary funds are raised and/or donated for construction or renovations of weight room facilities, the board of trustees often holds the final authority to proceed with those plans.
University/College Presidents

One level below the board of trustees is the role of college presidents. In business terms, collegiate presidents are considered the Chief Executive Officers (CEOs) of all university operations. They are selected by the boards of trustees and entrusted with the responsibility to implement and oversee all institutional goals and operations. Gerdy (2006), Chu (1985), and Frey (1982) all have noted the importance of the president’s involvement in each department, including athletics, yet presidents typically delegate governance to department heads. In the case of athletic departments, university presidents delegate departmental control to the head athletic director. Duderstadt (2003) has noted that the relationships among university presidents, department heads, and athletic directors are intricate because of the enormous amount of exposure athletic departments receive at most colleges and universities. Duderstadt (2003) wrote,

The president of a large university also has a significant role as its chief executive officer, responsible for the management of a diverse collection of activities, ranging from education to health care to intercollegiate athletics. Anything that happens, whether it involves the president --- or, indeed, whether it is even known by the president --- from student misbehavior to financial misdeeds to town-gown relations to the location of football seats for trustees --- eventually ends up on the president’s desk. (p. 99)

As an alternative to the chain of command typically found at most colleges and universities, Duderstadt (2003), Gerdy (2006), and Frey (1982) all have suggested that a direct line of communication between the athletic director and the president would be more beneficial.
Athletic Directors

Athletic directors manage the day-to-day operations of athletic departments. Mason and Paul (1988) defined the role of athletic directors as follows: “Management embraces all duties and functions that pertain to the initiation of the enterprise, its financing, the establishment of all other major policies, the provision of all necessary equipment, the outlining of the general form of the organization under which the enterprise is to operate, and the selection of principle officers” (p. 3). Put a different way, athletic directors are responsible for planning and organizing activities, providing a positive and safe environment, and displaying proper financial discernment and discretion when conducting various transactions. Duderstadt (2003) added, “The management of a modern intercollegiate athletics program involves a broad range of skills and experience: leadership, fiscal management, personnel relations, public relations, and, perhaps most important, a deep understanding and acceptance of academic values as preeminent in a university” (p. 111).

Because athletic directors are required to play a variety of disparate roles within the academic environment, they must delegate responsibilities to other department members. Many of these departmental responsibilities are delegated to associate and assistant athletic directors. Athletic directors and their assistants delegate the administration of individual programs (e.g., football, basketball, baseball, etc.) to their head coaches. Duderstadt (2003) wrote “At the competitive level, the responsibility for program control and integrity rests firmly with the coach” (p. 105). Athletic directors trust the head coaches of each individual team/sport to maintain integrity, abide by
institutional and NCAA rules, and provide a safe environment in which student athletes can participate in intercollegiate competition.

One of the departments that athletic directors oversee is the strength and conditioning department. Athletic directors rely on advice from their assistant athletic directors and head coaches, and a direct line of communication exists between these coaches, assistant directors, and athletic directors. Although exhaustive literature reviews have been conducted, in-depth research has not been found regarding the perceptions that athletic directors have regarding strength and conditioning programs. In fact, athletic directors rarely have shared publicly their perceptions of strength and conditioning programs unless they have been hiring and/or firing a head strength and conditioning coaches, or major construction or renovations to weight rooms.

Summary

This chapter discussed the historical nature and the development of strength and conditioning programs as well as their eventual inclusion into intercollegiate athletics. It also discussed the organizational theory of bureaucracy and how current institutions of higher education at the NCAA Division I level adhere to these principles of governance. Based on the work of Birnbaum and others, this literature review has identified 10 bureaucratic issues that center on ambivalence and confusion. This chapter has provided a conceptual link between these 10 issues and intercollegiate athletics, in general, and strength and conditioning programs, more specifically, showing clearly a research gap pertaining to perceptions on organizational theories from within. According to Birnbaum, bureaucracies in higher education often deal with problematic communication issues, functional and organizational issues, monetary and financial issues, and leadership
issues. Finally, this literature review illustrates the need to fill those research gaps through perceptions with an academic study in order to enhance and inform stakeholders within higher education and intercollegiate athletics. Through perceptions the participants can offer knowledge in their area, which this literature review shows, was previously unvoiced. These perceptions will add to the literature pertaining to organizational theories on bureaucracy. Bureaucracies are formed to succeed. Those involved in higher education in general and intercollegiate athletics specifically could benefit from the knowledge added from perceptions of those who help to make the bureaucratic process function from day to day.
Chapter Three

Methods

Strength and conditioning programs have become accepted and even essential components of collegiate athletic programs. As such, these programs fall within the parameters of traditional bureaucratic academic organizational charts, which means that strength and conditioning coaches typically report to athletic directors within the nation’s colleges and universities. Athletic directors depend on information from their strength and conditioning coaches to make important decisions about daily operations and the future development of various programs within athletic departments. However, in-depth research has not been conducted regarding the perceptions that athletic directors have about strength and conditioning programs or how strength and conditioning coaches perceive their individual athletic departments.

This chapter explains the qualitative methods that were used to conduct this study. It presents the purpose of the study, research questions, rationale, description of the participants and institutions they represent, the researcher's role, the methods of data collection and data analysis that were used, a discussion about the validity of the research, and the results of the study.

Purpose of the Study

According to Patton (1990), one of the primary purposes of qualitative higher education research, such as applied research, is to analyze and examine programs. One purpose of this study was to explore the previously undocumented perceptions of stakeholders, particularly athletic directors, who oversee strength and conditioning programs of MAC schools in the NCAA division I. A second purpose of this study was to
explore the previously undocumented perceptions of strength and conditioning coaches about their athletic departments and their strength and conditioning programs at their respective MAC universities. Lastly, the third purpose of this study was to analyze the perceptions held by both athletic directors and strength and conditioning coaches and identify similarities and/or differences.

**Research Questions**

The following research questions guided this study:

RQ. 1. How do athletic directors perceive their individual strength and conditioning programs?

RQ. 2. How do head strength and conditioning coaches perceive their individual strength and conditioning programs?

RQ. 3. What similarities and/or differences emerge in the ways that athletic directors and strength and conditioning coaches perceive their strength and conditioning programs?

**Research Design**

This research study was designed to provide what Schwandt (2001) and Patton (1990) have referred to as applied research. Patton wrote, “The purpose of applied research and evaluation is to inform action, enhance decision making, and apply knowledge to solve human and societal problems” (p. 12). Patton (1990) also added that “applied evaluative research is judged by its usefulness in making human actions and interventions more effective and by its practical utility to decision makers, policy makers, and others who have a stake in efforts to improve the world” (p. 12).
Currently, there are organizational gaps in applied research pertaining to athletic directors’ perceptions about strength and conditioning programs that fall under their governance. Research gaps also exist that pertain to the perceptions strength and conditioning coaches have about their athletic departments and their strength and conditioning programs at their respective MAC institution. The research questions have been designed to increase understanding among the scholarly community about the role of strength and conditioning programs in intercollegiate athletics. The first two research questions were designed to identify and increase understanding about any issues within intercollegiate athletic departments and strength and conditioning programs. The third research question was designed to identify similarities and differences in athletic director and strength and conditioning coach perceptions. There have been no research studies that have compared the perceptions of athletic directors with the perceptions of strength and conditioning coaches. Lastly, the perceptions offered from these research questions combined with the ultimate purpose of applied research was designed to aid and inform constituents involved both directly and indirectly with MAC athletic departments and their strength and conditioning programs with the knowledge of recommended action.

**Phenomenology**

This study employed a phenomenological method of inquiry to help answer the research questions. Patton (1990) wrote that phenomenological inquiry uses qualitative and naturalistic approaches to inductively and holistically understand human experience in context-specific settings. Smith (2011) added,

Phenomenology is the study of structures of consciousness as experienced from the first person point of view. The central structure of an experience is its
intentionality, its being directed toward something, as it is an experience of or about some object. An experience is directed toward an object by virtue of its content or meaning (which represents the object) together with the appropriate enabling conditions. (p. 1)

In particular, this study examined (a) the perceptions of athletic directors and strength and conditioning coaches and (b) the program impacts of strength and conditioning programs by interviewing those closest to the experience. In this case, first-person accounts (interviews) came from head athletic directors and head strength and conditioning coaches.

From an historical perspective, phenomenology has deep roots in philosophical inquiry for quite some time. Smith (2011) wrote, “Phenomenology has been practiced in various guises for centuries, but came into its own in the early 20th century in the works of Husserl, Heidegger, Sartre, Merleau-Ponty, and others” (p. 1). In fact, both Smith (2011) and Mechikoff (2010) recognized Edmund Husserl as the originator of phenomenology within a higher-education setting. Smith added, “According to classic Husserlian phenomenology, our experience is directed toward--represents or intends--things only through particular concepts, thoughts, ideas, images, etc. These make up the meaning or content of a given experience, and are distinct from the things they present or mean” (p. 1). “Put simply and directly,” wrote Patton (1990), “phenomenological inquiry focuses on the question: What is the structure and essence of experience of this phenomenon for these people?” (p. 69). Patton also wrote that the phenomenon under investigation may be a program, an organization, or a culture. In this study, phenomenological inquiry was used to study strength and conditioning programs by
interviewing those involved in their organization and maintenance (head athletic directors and head strength and conditioning coaches) in order to obtain their first-hand perceptions about the role of strength and conditioning programs in higher education.

The Researcher’s Role

In any qualitative study, the researcher plays an important role. Rubin and Rubin (1995) wrote,

With qualitative evaluation interviews, the researcher learns in depth and in detail how those involved view their successes and failures of a program or project. Even if a neutral role were possible, it is not desirable, because it does not equip the researcher with enough empathy to elicit personal stories or in depth description. Once researchers recognize that neutrality is neither possible nor useful in the research, they have to learn to handle emotion so that it does not hurt the research. (p.13)

It should be noted that the researcher of this dissertation has been involved in intercollegiate athletics in general and in strength and conditioning programs specifically from 1997 to 2008 as both a varsity football player and a strength and conditioning coach. According to common and well-established practices related to qualitative research, the researcher’s prior involvement with the topic under investigation (in this case intercollegiate athletics) provided an opportunity to better understand the population, more effectively elicit information from participants, and more accurately interpret and analyze data. Rubin and Rubin wrote that “interviewing roles and questioning styles are not like masks that can easily be put on and taken off, because the researcher is part of the study” (p. 18). Patton (1990) and Creswell (2005) also have noted that after
qualitative data has been collected, it is possible for the researcher to adopt the perceptions and/or theories offered by the participants, which in some cases, it did happen in this study. At other times, the researcher disagreed with the information and forms an individual bias.

The researcher’s previous experience with strength and conditioning programs has added value to this study in several specific ways. First, the researcher has been an “insider” within the strength and conditioning profession; understands the basic function, structure, and organization of strength and conditioning programs; and has formed relationships with peers in this profession. These experiences have been especially important to this study as the researcher developed the semi-structured interview questions used during interviews with the head athletic directors and head strength and conditioning coaches. Secondly, the researcher’s experience in this profession also enabled athletic directors and strength and conditioning coaches to feel comfortable speaking about issues and concerns related to strength and conditioning programs. Being an insider also made it easier for the researcher to be aware of biases related to issues with strength and conditioning programs, such as certain beliefs in certain perceptions. Ultimately, the role of the researcher consisted of (a) interviewing head athletic directors and head strength and conditioning coaches to elicit their perceptions, (b) coding the data, (c) analyzing the data, (d) reporting the results, and (e) offering recommendations for practice and future study.
Participants

Participants of this study included athletic directors and head strength and conditioning coaches from colleges within the Mid-American conference. Conference membership started in 1946, and the conference added its last member in 2007.

A definition of the conference located in the constitution and bylaws of the Mid-American conference has described this group of colleges and universities as “institutions of collegiate grade adhering to common standards of athletic competition and voluntarily associated in the operation of this conference. This includes the recognition that all members of the conference are Division I-A as defined by the membership standards of the NCAA” (DeHass, 2011, p. 96).

The population consists of 12 head athletic directors and 12 head strength and conditioning coaches. These participants were chosen because they are what Marshall and Rossman (2006) have called “elites” (p. 105). Marshall and Rossman wrote,

Elites individuals are considered to be influential, prominent, and/or well-informed in an organization or community; they are selected for interviews on a basis of their expertise in areas relevant to the research. Valuable information can be gained from these participants because of positions they hold in social, political, financial, or administrative realms. Elites can provide an overall view of an organization or its relationship to other organizations, albeit from their own limited and bounded perspectives. They may be quite familiar with the legal and financial structures of the organization. Finally, elites are also able to report on an organization’s policies, histories, and plans, again from a particular perspective. (p. 105)
All participants in this study were considered elites because of the positions they held at the time the interviews were conducted: head athletic director and head strength and conditioning coach. They were also considered to be closest to the basic structure, function, and organization of the strength and conditioning program.

**Sampling Strategy**

The sampling strategy used in this research project was a combination of convenience sampling (Zeisset, 2009; Mitchell & Jolley, 2010) and purposive selection (Houser, 2008). Convenience sampling was used as a general method of sample selection, and purposive selection was used as a more specific sampling method. These sampling methods were chosen because head athletic directors and head strength and conditioning coaches from the Mid-American conference possess in-depth knowledge of strength and conditioning programs at the NCAA Division I level. Together, these sampling strategies can be described as “expert sampling.” According to Bruce, Langley, and Tjale (2008), “The richness of experience leads an expert to have intuitive knowledge that arises from a deep understanding of the total situation (Benner, 1984: 32)” (p. 58). The sample included head athletic directors and head strength and conditioning coaches at seven universities of higher education in one conference (i.e., the Mid-American conference) out of 12 conferences involved with the NCAA Division I. Purposive sampling was used, which Patton (1990) has defined as “a procedure in which researchers intentionally select individuals and sites to learn or understand the central phenomenon” (p. 169). From a bureaucratic standpoint, head athletic directors and head strength and conditioning coaches were intentionally selected for this study because their position reflects the highest professional opinion concerning strength and conditioning
programs at the NCAA Division I level. In addition to purposeful sampling, this study also used convenience sampling, which Creswell (2004) has defined as “a sampling procedure in which the researcher selects participants because they are willing and able to be studied” (p. 590). Athletic directors (5 out of 12 possible) and strength and conditioning coaches (5 out of 12 possible) who work for colleges and universities in the Mid-American conference were selected based on convenience in relation to location, their willingness to participate, and available resources. The Mid-American conference is one subgroup out of 12 conferences at the Division I level of the NCAA, and all colleges and universities in this conference have strength and conditioning programs for their varsity athletics programs.

In addition to using purposive selection, convenience sampling, and expert sampling, the researcher suspected that some snowball sampling would occur. Cresswell (2005) has noted that “Snowball sampling is a form of qualitative purposeful sampling that typically proceeds after a study begins in which the researcher asks participants to recommend individuals to study” (p. 598). For a variety of reasons, some athletic directors may feel they are not the most qualified to respond to the semi-structured standardized questionnaire and, as a result, may refer the researcher toward another possible participant who can offer more accurate or perhaps timely responses to the semi-structured interview questions. However, even though the opportunity for snowball sampling was provided for, it did not occur. Patton (1990) has noted that qualitative research will at times combine sampling strategies when collecting data, as is the case in this study. Patton (1990) wrote, “Sampling strategies may combine and are not mutually exclusive. What is important is that the cases are information-rich” (p.181).
In order to enhance the quality and credibility of the data collected, this study employed a method Patton (1990) and Cresswell (2005) described as data source triangulation. Cresswell defined triangulation as “the process of corroborating evidence from different individuals, types of data, or methods of data collection, in descriptions and themes in qualitative research” (p. 600). Houser (2008) also noted that “the use of multiple data collection methods (for example, interviews, observation, and document review) results in method triangulation” (p. 485). For this study, additional documents were analyzed, including mission statements, budgets, career paths, and organizational charts. Information from these additional data sources enriched the study in that the researcher was able to (1) compare observational data with interview data, (2) compare what participants have reported publicly to what they said during the interviews, and (3) check for consistency in perceptions of the participants. The data collected using the triangulation for this study can be found in Appendix G.

In some cases, data saturation was allowed to occur during the course of collecting the data for this research project. Cresswell (2005) wrote that data saturation “in qualitative research is a state in which the researcher makes the subjective determination that new data will not provide any new information or insights for the developing categories” (p. 598). It was possible that many of the participants will report the same perceptions without the likelihood of adding new information or insight to the results of the study. Although data saturations was allowed for, it did not happen for this study.
**Instrument**

The instrument for this study consisted of a semi-structured set of interview questions--i.e., an “interview guide.” According to Creswell (2004), the interview guide should consist of “unstructured and generally open-ended questions that are few in number and intended to elicit views and opinions from the participants” (p. 181). The semi-structured interview guide for this dissertation consisted of six broad-based interview questions designed to elicit opinions from participants about critical issues, bureaucratic challenges, important bureaucratic factors, types of communication, and expectations related to athletic departments and strength and conditioning programs. The semi-structured interview questions/protocol were developed based on recommendations within the literature as well as established qualitative research methods (see Appendix B and Appendix E).

As an accompaniment to the semi-structured interview guide, a set of probing questions was established that reflects Birnbaum’s issues related to bureaucratic management (see Appendix C and Appendix F). These issues include leadership, policymaking, communication, dualism of control, decision-making authority, resources, finances/revenue, and top-down governance. Based on the responses of the participants to the initial broad-based questions within the semi-structured interview guide, the researcher asked specific follow-up questions designed to probe more deeply into the perceptions of athletic directors and strength and conditioning coaches. The researcher asked probing questions related to Birnbaum’s issues only when the interview participant initiated discussion or mentioned concepts related to these issues. The probing questions reflected Rubin and Rubin’s (1995) “tree-and-branch model” (p. 159). This model
suggests that the main questions in the semi-structured interview serve as the tree trunk and the probing questions serve as potential follow-up questions, or “branches,” designed to elicit more specific responses from participants.

Additional support for the development of the semi-structured interview questions was provided through critique and input from head athletic directors, associate athletic directors, head strength and conditioning coaches, conference associate commissioners, and education directors from strength and conditioning associations. These constituents were not eligible for participation in the study.

**Data Collection and Validity**

Creswell (2004) stated that validity is a process that allows the researcher to draw meaningful and justifiable inferences from information derived from a sample or population. Regarding validity and reliability, Rubin and Rubin (1995) wrote the following:

If the work is reliable, two researchers studying the same area will come up with compatible observations. Most indicators of validity and reliability do not fit qualitative research. Trying to apply these indicators to qualitative work distracts more than it clarifies. Instead, researchers judge the credibility of qualitative work by its transparency, consistency and coherence, and communicability; they design interviewing to achieve these standards. (p. 85)

In order to assure validity and reliability, this researcher employed what Patton has referred to as the standardized interview process. Patton (1990) described this process as follows:
The standardized interview consists of a set of questions carefully worded and arranged with the intention of taking each respondent through the same sequence and asking each respondent the same questions with essentially the same words. The standardized interview is used when it is important to minimize variation in the questions posed to interviewees. This reduces the possibility of bias that comes from having different interviews for different people, including the problem of obtaining more comprehensive data from certain persons while getting less systematic information from others. A standardized interview may be particularly appropriate when a large number of people are to conduct interviews on the same topic and the evaluator wishes to reduce variation in responses due to the fact that, left to themselves, different interviewers will ask questions on a single topic in different ways. By controlling and standardizing the interview, the evaluator obtains data that are systematic and thorough for each respondent but the process reduces flexibility and spontaneity. (p. 280)

By following a structured interview process (see Appendix B and Appendix E) and carefully analyzing the data obtained during the interview processes, the findings of this study are more likely to achieve transparency, consistency, coherence, and communicability. This method also provided flexibility to ask follow-up questions regarding topics that were not explicitly mentioned in the standardized, semi-structured interview questions.

The interviews were conducted during face-to-face meetings and a telephone meeting between (1) the researcher and the athletic directors and (2) the researcher and the strength and conditioning coaches from each of the colleges/universities that
comprise the sample. The interviews were conducted from April 2012 through December 2012.

The researcher first contacted participants through an email that explained the study; the researcher then followed up with a phone call. Out of the 24 possible participants, 10 agreed to participate in this study. The interviews were recorded onto audiotape, and the researcher took notes on a notepad in case of a technological malfunction. In addition to content notes, the researcher also took notes about non-verbal behaviors and non-verbal cues, which helped to further enrich the interview responses. Each interview was conducted individually at the convenience of the head athletic directors and the head strength and conditioning coaches. The interviews were then transcribed verbatim, analyzed using three distinct coding processes to identify codes and themes, and then used to answer the research questions.

Asmussen and Creswell (1995) provided a general design guide for a structured interview protocol, which was used to guide the interview process for this study. The following protocol was implemented for each interview participant (see Appendix A and Appendix D): (1) In the interviewer’s notes, the following information was recorded during each interview: time of interview, date of interview, location of interview, name of interview participant, professional position of interview participant; (2) during the interviews, the interviewer described the project by informing the interview participant about the purpose of the study, steps that would be taken to ensure confidentiality and anonymity of the interviewee, and the approximate length of the interview; the interviewer also reminded the interview participant to sign the consent form and informed him or her that the digital recorder was turned on to begin the interview; (3) icebreaker
questions related to current events were provided to begin the interview in an attempt to relax the interview participant and motivate easy going conversation; (4) following the icebreaker questions, the interviewer began asking interview participants the core questions from the structured interview guide; (5) in addition to the core questions, the researcher asked additional probing questions to help clarify the responses of the interview participants and help them elaborate when necessary; (6) the researcher allowed time between questions to take notes in response to verbal cues, interruptions, or additional thoughts/reflections; (7) at the conclusion of the interview process, the interviewer provided closing comments, thanked participants for their participation, reassured them of confidentiality, and reminded them about how the data will be discussed and disseminated. All participants were approached individually via an initial email and a follow-up phone call to any possible gatekeepers (e.g., secretary, assistants, etc.). The purpose of each email and/or phone call was to determine whether participants were willing to participate in a study related to intercollegiate athletics in general and strength and conditioning programs in particular. As suggested by Patton (1990) and Creswell (2005), participants were informed that their perceptions could offer potentially valuable information to a virtually non-existent research base pertaining to bureaucratic organizations within higher education systems. Upon confirmation of their willingness to participate, the researcher travelled to each university campus at a mutually convenient time to conduct the interviews, and performed a phone interview one occasion. Of the 24 potential participants, 10 responded and agreed to participate in the study. All interviews were conducted between April 2012 and June 2012. The researcher followed a structured interview format (see Appendix B and Appendix E). The researcher asked participants
the structured interview questions via face-to-face interviews. The interviews lasted a minimum of 20 minutes and a maximum of 1 hour and 10 minutes. Each participant was provided an opportunity to approve the information they provided (a process known as “member checking”). After the interviews were transcribed, participants were asked to verify content and to verify context.

Data Analysis

When analyzing the data, the researcher followed the seven general phases suggested by Marshall and Rossman (2006): (1) Organize the data from the interviews and cross-check the participants’ responses for accuracy, (2) engage in immersion and contemplation of the data from the interviews, (3) generate categories and themes, (4) code the data, (5) offer interpretations through analytic memos, (6) search for alternative understandings, and (7) write the results in narrative form and include a member-checking procedure with the participants before writing the final results for presentation of the study.

According to Saldana (2009), “A code in a qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (p. 3). Saldana also has suggested a general coding process, which the researcher employed in order to identify themes and to help answer the research questions. In general, these processes can be described in terms of two broad categories: first-cycle coding and second-cycle coding.

First-cycle coding includes the initial coding of the data from the interviews, while second-cycle coding refers to a more refined review process. The specific coding
methods included what Saldana (2009), Charmaz (2002), Corbin and Strauss (2008), Glaser (1978), and Glaser and Strauss (1967) have referred to as “in vivo coding,” and what Miles and Huberman (1994) and Wolcott (1994) have referred to as “descriptive coding.” Saldana (2009) wrote that “in vivo’s root meaning is in that which is alive and as a code refers to a word or short phrase from the actual language found in the qualitative data record” (p. 74), or as Strauss (1987) has put it, “the term used by [participants] themselves” (as cited in Saldana, 2009, p. 74). This method refers to creating codes from words or short phrases (usually two to three sentences long) from the actual language found within the data. Saldana (2009) wrote,

As you read interview transcripts or other documents that feature participant voices, attune yourself to words and phrases that seem to call for bolding, underlining, italicizing, highlighting, or vocal emphasis if spoken aloud. Their salience may be attributed to such features as impacting nouns, action-oriented verbs, evocative word choices, clever or ironic phrases, similes and metaphors, etc. If the same words, phrases, or variations thereof are used often by the participant, and seem to merit an In Vivo Code, apply it. (p. 75)

Charmaz (2002) added that in vivo codes help to “...crystallize and condense meanings” (p. 57).

Descriptive coding was employed at the same time that in vivo coding was employed. Miles and Huberman (1994) have referred descriptive coding as process in which a short identifier is assigned to the text segment. Wolcott (1994) referred to this process as assigning content, which is the substance of the message. Saldana (2009) wrote, “Descriptive coding summarizes in a word or short phrase--most often as a noun--
the basic topic of a passage of qualitative data. Saldana (2009) has suggested that first-cycle coding could include anywhere from 50 to 80 codes.

Saldana (2009) has described second-cycle coding as advanced ways of recognizing and reanalyzing the coded data from the first-cycle coding process. According to Saldana, second-cycle coding also provides a sense of categorical, thematic, conceptual, and/or theoretical organization to the data. The codes taken from the first-cycle coding process were consolidated into broader categories. Creswell (2004) has suggested 6 to 10 broad categories. Miles and Huberman (1994) have referred to this second-cycle coding process as “pattern coding,” which “develops a meta-code that recognizes and organizes explanatory or inferential codes that can help to identify emergent themes, configurations, or explanations” (p. 69). After the second-cycle coding, Saldana has suggested that code-weaving is possible. According to Saldana, “Code-weaving is the actual integration of key code words and phrases into narrative form to see how the puzzle pieces fit together” (p. 187). Once this process has been completed, there was an opportunity for the participants to review the transcripts from their individual interviews. This was done to assure that participants’ words and intentions were accurately recorded.

Chapter Summary

In summary, this chapter provides an in-depth explanation of the qualitative methods used to conduct this study. First, it presents the purpose of the study, which is to explore the perceptions of athletic directors and strength and conditioning coaches at MAC universities regarding their strength and conditioning program. Secondly, this chapter presents the three specific research questions, which were established to explore
the perceptions of the athletic directors and strength and conditioning coaches regarding the operations of strength and conditioning programs and to look for any similarities and/or differences in their perceptions. Third, this chapter presents the specific methods of the research design (i.e., applied research and phenomenology). Fourth, this chapter presents the researcher’s role within the study, illustrating the researcher’s past experience in relation to strength and conditioning programs, and specifically how that past relates to the qualitative inquiry used to conduct the study. Fifth, this chapter describes the participants and the sampling strategy. Convenience sampling and purposive selection were combined with expert sampling to add to the richness of the intuitive knowledge the participants offered through their perceptions. Sixth, this chapter describes the instrument used to conduct the semi-structured interviews. It contains an interview guide consisting of six semi-structured questions that were designed to elicit perceptions from both athletic directors and strength and conditioning coaches. Seventh, the data collection methods and validity issues are explained. The specific methods of data collection during the interview process are described. Lastly, the data analysis procedures are described, and the seven general phases of qualitative research are explained in detail.
Chapter Four

Findings

The purpose of this qualitative study was to examine the perceptions of athletic directors and strength and conditioning coaches at universities in the Mid-American Conference. The study was driven by a desire to better understand the ways that athletic directors and strength and conditioning coaches function in a higher education setting and to explore the role that bureaucracy plays in shaping their behaviors, values, and interactions. This chapter includes a summary of the participants, the data collection procedures, and the data analysis procedures as well as the data source triangulation methods used. A summary of the findings is presented in a condensed format at the beginning of this chapter, and a more extensive presentation of the findings is provided in a later section.

Research Questions

This study was guided by the following research questions:

RQ. 1. How do athletic directors and perceive their individual strength and conditioning programs?

RQ. 2. How do head strength and conditioning coaches perceive their individual strength and conditioning programs?

RQ. 3. What similarities and/or differences emerge in the ways that athletic directors and strength and conditioning coaches perceive strength and conditioning programs?
Summary of Participants, Data Collection Techniques, and Data Analysis Techniques

The participants in this study were selected through a convenience sampling method as well as expert sampling, and the researcher interviewed athletic directors and strength and conditioning coaches from seven different division I universities within the Mid-American Conference. The researcher conducted semi-structured, face-to-face interviews with 10 participants, including five athletic directors and five strength and conditioning coaches. The researcher audio recorded each individual interview and then transcribed the audio recordings verbatim and transferred them to Microsoft Word documents.

The researcher then used “in vivo” and descriptive first-cycle coding processes to code the data. In vivo codes are what Saldana (2009) refers to as verbatim coding. In vivo codes “...refer to a word or short phrase from the actual language found in the qualitative data record” (p. 74). Glaser and Strauss (1967) have mentioned that the in vivo process is very useful to researchers new to the coding process; however, Saldana (2009) also warned of the over dependence on this strategy as it “...limits the ability to transcend to more conceptual and theoretical levels of analysis and insight” (p. 77). In an effort to achieve these conceptual and theoretical levels of analysis and insight, this researcher also employed descriptive coding in addition to in vivo coding during the first-cycle coding process. Miles and Huberman (1994), Wolcott (1994), and Saldana (2009) have supported descriptive coding and defined descriptive codes as short summaries of individual words or phrases related to the basic topic or passage within the qualitative data. During the second-cycle coding process (i.e., pattern coding), the researcher applied
a combination of categorical, thematic, conceptual, and/or theoretical organization principles to the first-cycle codes in order to identify themes within the transcripts and create assertions that characterized the essence of the themes (see Table 1).

**Triangulation**

In order to more fully explore the data, the researcher engaged in a process of data triangulation. Based initially on comments from participants and themes that emerged through analysis of the data, the triangulation process also involved gathering additional information about each university from a variety of sources (e.g., mission statements, the Integrated Post-Secondary Education Data System [IPEDS] website, collegiate financial studies, etc.). This triangulation process provided additional information with which to compare the themes and other information derived from the transcript analysis. For example, analyzing the mission statements of each university, athletic department (when applicable), and strength and conditioning program (when applicable) helped to corroborate the perceptions of the participants in this study. Another example of a triangulation method used by the researcher includes comparing financial data from MAC universities (e.g., student fees, revenues from sports programs, budgets, etc.) with financial information provided by participants during the semi-structured interview process.

This chapter presents the findings of the study and is divided into six sections: (1) perceptions about athletic departments and strength and conditioning programs, (2) mission statements, (3) organizational infrastructure, (4) resources, (5) communication, and (6) projected 10 year trends. The findings are presented based on themes as the
Table 1

*An Example of the Process Used to Develop First-Cycle Codes (In vivo Codes and Descriptive Codes), Second-Cycle Codes (Pattern Codes), and Assertions.*

<table>
<thead>
<tr>
<th>Text Segment</th>
<th>In Vivo Code</th>
<th>Descriptive Code</th>
<th>Pattern Code</th>
<th>Assertion</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Well, the betterment of our teams, however, safety is huge. A very organized schedule. I would expect our head of strength and conditioning to coordinate with our coaches and staff to have a program for a specific sport, as opposed to everyone doing the same thing.”</td>
<td>“SAFETY IS HUGE.”</td>
<td></td>
<td>Program expectations.</td>
<td>Athletic directors value strength and conditioning programs and expect that student-athletes will benefit from a safe, organized, and sport-specific program for each individual sport team.</td>
</tr>
<tr>
<td>“I think that ultimately everything we do should track back to the mission statement.”</td>
<td>“MISSION STATEMENT.”</td>
<td>Department applications trace back to mission statement.</td>
<td>Importance of mission statement</td>
<td>Athletic directors feel that their mission statements are very important, and the operations of their respective departments should ultimately be traced back to these mission statements.</td>
</tr>
<tr>
<td>Text Segment</td>
<td>In Vivo Code</td>
<td>Descriptive Code</td>
<td>Pattern Code</td>
<td>Assertion</td>
</tr>
<tr>
<td>--------------</td>
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</tr>
<tr>
<td>“Well it [mission statement] plays a role because of course, with my bias, we are an important function of the university. We are not some clandestine organization. And, I’ve never wanted athletics to be thought of as separate from the university.”</td>
<td>“NEVER WANTED ATHLETICS SEPARATED FROM UNIVERSITY.”</td>
<td>Athletic department mission statement links back to university mission statement.</td>
<td>Function of mission statement.</td>
<td>Strength and conditioning coaches feel university mission statements are important to the department’s operations, yet because of the often general nature of these mission statements, they feel that more specific goals are necessary. However, these specific goals should not stand in contrast to the overall mission statements.</td>
</tr>
<tr>
<td>“The athletic department’s mission statement... to me, I couldn’t read it to you verbatim, but the university has a mission statement, and so does the athletic department. We also have a mission statement, but they all go within the same framework.”</td>
<td>“ALL MISSION STATEMENTS BELONG WITHIN THE SAME FRAMEWORK.”</td>
<td>“MISSION STATEMENTS ARE GOOD BUT BASIC AND SIMPLE.”</td>
<td>Everything must link up.</td>
<td></td>
</tr>
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<td></td>
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</tr>
<tr>
<td>Text Segment</td>
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<td>Pattern Code</td>
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</tr>
<tr>
<td>“I think mission statements are good and the philosophy is good for recruiting. After that, to an extent... mission statements are not as prevalent, because, you know, ours is very basic and very simple.”</td>
<td></td>
<td>Mission statements help but are not very specific.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“I think we could have a better understanding of what they [ athletic directors ] do, and they could have a better understanding of what we do. I think they need to be more personal with the sport coaches in order to just develop a better relationship.”</td>
<td>&quot;ATHLETIC DIRECTORS NEED TO BE MORE PERSONAL.”</td>
<td></td>
<td>Strength coaches’ perceptions about communicating with athletic directors.</td>
<td>Strength and conditioning coaches desire to have better working relationships with athletic directors and to see these relationships develop on a more personal basis with increased communication.</td>
</tr>
</tbody>
</table>
primary organizing principle, and the findings related to each research question are contained in each section (see Table 2).

Table 2

An Example of How the Findings are Presented Based on Themes as the Primary Organizing Principle

<table>
<thead>
<tr>
<th>Theme 1</th>
<th>Perceptions about Athletic Departments and Strength and Conditioning Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Findings for RQ1 regarding Theme 1</td>
</tr>
<tr>
<td></td>
<td>Findings for RQ2 regarding Theme 1</td>
</tr>
<tr>
<td></td>
<td>Findings for RQ3 regarding Theme 1</td>
</tr>
<tr>
<td></td>
<td>Additional findings for Theme 1</td>
</tr>
<tr>
<td>Theme 2</td>
<td>Mission statements</td>
</tr>
<tr>
<td></td>
<td>Findings for RQ1 regarding Theme 2</td>
</tr>
<tr>
<td></td>
<td>Findings for RQ2 regarding Theme 2</td>
</tr>
<tr>
<td></td>
<td>Findings for RQ3 regarding Theme 2</td>
</tr>
<tr>
<td></td>
<td>Additional findings for Theme 2</td>
</tr>
<tr>
<td>Theme 3</td>
<td>Organizational Infrastructure</td>
</tr>
<tr>
<td></td>
<td>Findings for RQ1 regarding Theme 3</td>
</tr>
<tr>
<td></td>
<td>Findings for RQ1 regarding Theme 3</td>
</tr>
<tr>
<td></td>
<td>Findings for RQ1 regarding Theme 3</td>
</tr>
<tr>
<td></td>
<td>Additional findings for Theme 3</td>
</tr>
<tr>
<td>Theme 4</td>
<td>Resources</td>
</tr>
<tr>
<td></td>
<td>Findings for RQ1 regarding Theme 4</td>
</tr>
<tr>
<td></td>
<td>Findings for RQ2 regarding Theme 4</td>
</tr>
</tbody>
</table>
This format consolidates important aspects of the findings by presenting the findings for all three RQs in each section (i.e., perceptions of athletic directors [RQ1], perceptions of strength and conditioning coaches [RQ2], and a comparison of the perceptions of athletic directors and strength and conditioning coaches [RQ3]). This organizing principle allows readers access to the findings for all three RQs in one textual location and provides readers with a degree of integration that would be lacking if the findings were presented using the research questions as the primary organizing principle, and it facilitates interpretation by the reader by providing convenient access to the emergent themes. A short summary of the six sections can be located within summary of the findings section directly below.
Summary of the Findings

An analysis of the perceptions of athletic directors and strength and conditioning coaches revealed six themes.

First, the researcher examined athletic directors’ personal perceptions about athletic departments in general and strength and conditioning programs in particular. Athletic directors indicated the importance of strength and conditioning programs. Some revealed that they feel strength and conditioning programs serve a critical role for student-athletes within the departments, which is to strengthen student-athletes’ musculatures in order to enhance intercollegiate performance and reduce and/or prevent potential injuries during competition. Athletic directors also reported their personal expectations, which centered on creating specialized programs for each sport. Athletic directors also indicated that they expect their strength coaches to establish and maintain positive relationships throughout the athletic department.

Strength and conditioning coaches reported that they personally value their roles and contributions within their programs in their respective athletic departments, but their perceptions varied about how they feel about athletic directors within their departments. Two primary perceptions were apparent: (1) they felt they experienced a general lack of communication with athletic directors, and (2) they desired to build stronger relationships with them. Even though these differences illustrate different perceptions, the similarities in perceptions between athletic directors and strength and conditioning coaches revealed that they both perceive their relationships with each other to function on trust—e.g., athletic directors trust strength and conditioning coaches to administer strength and
conditioning programs, and strength coaches trust athletic directors to provide strength and conditioning programs with the resources to operate successfully.

Secondly, mission statements play an important role in guiding the day-to-day activities both of athletic directors as well as of strength and conditioning coaches. Athletic directors revealed that university and athletic department (if applicable) mission statements have functional value within their departments, and they perceived these mission statements as playing a utilitarian role in guiding day-to-day management of all programs under their supervision. Strength and conditioning coaches revealed that university mission statements were not as valuable because they perceived these mission statements to be mostly bland and unspecific as they related to their strength and conditioning programs. As a result, coaches instead felt the need to label specific program goals and objectives. Further analysis of the remarks about mission statements suggests that participants have different perceptions pertaining to the value of department and program mission statement development, suggesting that the development of mission statements is widely based on the individual opinions they have.

Third, the organizational infrastructure of most MAC universities is similar, but there are a few important differences. Specifically, a number of common factors influence and guide the philosophical organization of athletic departments although the precise configuration of each athletic department is a function of how these factors are implemented and expressed. For example, athletic directors and strength and conditioning coaches who participated in this study reported that these factors include previous experience in similar roles at the same institution or at other institutions, available resources, the size of the staff they oversee, their daily duties, the effects of their
environment, demographics, and finally the ultimate pressure to produce winning sport teams. The differences in philosophical preferences include the athletic directors’ organizational perceptions from a macro level and strength and conditioning coaches’ organizational perceptions from a micro level. These perceptions signified the ability of athletic directors to oversee the entire athletic department, while strength and conditioning coaches oversee their entire strength and conditioning programs.

Fourth, the findings suggest that athletic directors and strength and conditioning coaches both perceive resources to play a critical role within their operations. Overwhelmingly, athletic directors indicated that they must properly manage the intake of revenues and the outflow of expenses. Athletic directors also revealed that they must be able to distribute their available resources throughout their department, and they base these distributions upon their philosophical interests. They also reported that because the MAC is not a BCS conference (BCS conferences receive more resources than non-BCS conferences), additional resources must be provided by their respective universities, and the number of those resources varies. Strength and conditioning coaches also perceived resources to play a critical role in the operations of their programs. They widely felt that it was of utmost importance to keep expenditures within their annual budget allotments, but many strength and conditioning coaches also reported that they felt underpaid, which also resulted in their feeling unappreciated.

Fifth, the findings suggest that communication is essential both to athletic directors and strength and conditioning coaches; both sets of participants revealed that the success of their respective roles depends on being an effective communicator. Athletic directors reported that they must communicate regularly with a large number of diverse
constituents from both inside and outside their athletic departments. They also mentioned the importance of establishing clear and open communication channels by setting appropriate directives and making sure that these directives filter to the proper constituents. Strength and conditioning coaches also reported how important they perceive communication is to the operations of their strength and conditioning programs. They revealed that although strength and conditioning coaches do not ordinarily communicate with constituents outside of the athletic department, they have a large number of constituents to communicate with inside the department, including sport coaches, administrative staff, medical staff, equipment staff, facility managers, and primarily student-athletes. Coaches reported that it is crucial to properly communicate the philosophical tenets of their strength and conditioning programs in order to establish and maintain a successful and integrated overall structure. Athletic directors and strength and conditioning coaches both expressed enthusiasm for their jobs as it pertained to communication.

Sixth, the findings illuminate participants’ perceptions about the role of leadership and provide predictions about changes to the intercollegiate athletics landscape (as these changes apply to them) during the next 10 years. Athletic directors revealed both projected trends they foresee in athletic departments and also in strength and conditioning programs. Strength and conditioning coaches also predicted trends in strength and conditioning programs they foresee in the next 10 years, including an increased focus on more administrative responsibility, staffing additions, higher pay and benefits, and more specialized training for individual sport teams.
Findings

Perceptions about Value of Athletic Departments and Strength and Conditioning Programs

RQ1: Perceptions of athletic directors regarding strength and conditioning programs. Athletic directors’ identified some key characteristics of strength and conditioning programs and coaches, which provides insight into the expectations athletic directors have of their strength and conditioning programs. For example, athletic directors understand the importance of strength and conditioning programs. In fact, two athletic directors reported that their strength and conditioning program served a critical role in their athletic department. All athletic directors listed program expectations, which were similar in nature and include strengthening performance for each individual sport and injury prevention. One athletic director summed up his perceptions by stating,

You know, I think the words [“strength and conditioning programs”] speak for themselves. It covers the range of not only motion and strength but obviously the conditioning part of it—also, the preventative measures related to the strengthening of student-athletes’ bodies to get them better prepared for their season, and to prevent themselves [from injury]. But I think each sport is different, too, in what they are trying to accomplish—whether it’s pure strength and bulk, or it’s more conditioning related, or it’s more flexibility and coordination. So, it does run the gamut, and when you’ve got [so many] different sports, you’ve got [so many] different approaches to addressing the teams and their needs and the types of student-athletes that they have.
This athletic director indicated that his program expectations are linked to goals focusing on strengthening and conditioning student-athletes in all varsity sports with specialized attention. In order to achieve these goals, one athletic director spoke extensively about the qualities they believe strength and conditioning coaches should have, including the proper amount of education, experience, and certification. Another athletic director also reported that strength and conditioning coaches should be able to develop and maintain positive relationships with student-athletes, be effective recruiters, and be able to portray a positive image to the community.

Finally, one athletic director reported that because of the increase in individualized training in each sport, the athletic director wished that more staffed could be added to his strength and conditioning staff; however, he cited budgetary constraints as a roadblock for that objective. This athletic director explained,

"We look at a lot of areas in our department and say, ‘Boy, if we could add positions, here is our list... strength programs certainly being one of them.’ Still, even as of last year, we are losing people [to financial cuts]. So that is one challenge that I think is not just local to us."

In summary, athletic directors recognize that strength and conditioning coaches must tailor their approaches to training based on the goals that head coaches have within each sport. They also reported that formal background education and training for strength and conditioning coaches are as important as fulfilling internal and external public relations roles.

RQ2: Perceptions of strength and conditioning coaches regarding athletic departments. Strength and conditioning coaches indicated that they held various
perceptions of their athletic departments and athletic directors. Four strength and conditioning coaches who were interviewed for this study report to an associate or assistant athletic director, and one said he currently has been reporting directly to the head athletic director until a replacement associate athletic director can be found. These perceptions remain consistent with bureaucratic lines of reporting to authoritative figures through organization charts.

This study indicated that there are two primary attitudes that strength and conditioning coaches hold of athletic directors include the following: (1) strength and conditioning coaches experience a lack of communication and a need for increased support; (2) strength and conditioning coaches desire to have a stronger relationship with their athletic directors. One strength and conditioning coach explained that through improved communication, athletic directors could better understand program needs. That coach reported, “I think they need to be more personal with the sport coaches in order to just develop a better relationship there.” Another strength and conditioning coach reported that his athletic director has never visited the strength training facility to observe the strength and conditioning program up close and personal.

Another perception a strength and conditioning coach reported that when he places orders for equipment and supplies for his strength and conditioning program, those order forms usually are shuffled from one administrative desk to another. He reported that this causes a huge problem for him because of the ultimate sense of urgency and pressure to produce winning programs, which requires prompt and swift movement when fulfilling order requests.
There were other perceptions indicated by strength and conditioning coaches, that referred to support and clear and concise messages concerning program operations from athletic directors. In fact, strength and conditioning coaches reported how important it is to secure the support of their athletic directors. For example, one coach said that it is critical to have that support from the top down because this support delivers a clear message about the importance of the strength and conditioning programs at all levels. This coach added that the message helps the strength and conditioning coach be successful with his objectives. When objectives are clear from both athletic directors and strength and conditioning coaches, it makes program operations easier as well. With support from athletic directors for the program objectives, strength and conditioning coaches can have a more defined programmatic approach with other head sport coaches and student-athletes.

Finally, strength and conditioning coaches interviewed for this study were heavily guarded when speaking about their superiors. For example, one strength coach was not comfortable sharing his perceptions about his administration and asked to move forward to other questions. Field notes indicated that even though the participants were informed that their responses would be held in strict confidence, it was understandable why strength and conditioning coaches were very careful with the perceptions they offered.

**RQ3:** Comparison and contrast of the perceptions of athletic departments and strength and conditioning coaches regarding athletic departments and strength and conditioning programs. There are some clear similarities and differences among the perceptions of athletic directors and strength and conditioning coaches regarding their perceptions about each other. Their overall relationship is similar in that it relies on trust.
For example, athletic directors trust strength and conditioning coaches to strengthen all varsity athletes and prepare them for intercollegiate competition. They also trust strength and conditioning coaches to strengthen all varsity athletes and help them resist injuries during intercollegiate competition. Similarly, this is also the main goal of the strength and conditioning coaches who participated for this study. Strength and conditioning coaches also must have trust in their athletic directors. They must trust that their athletic directors support their program, and understand the value in it. A difference in the perceptions that athletic directors and strength and conditioning coaches have about each other includes program desires. For example, one strength and conditioning coach reported the importance of getting new equipment and getting it as quickly as possible. Athletic directors reported that resources are scarce and that they must disperse them with discretion. It is not always easy to address all the problems of each program simply because of time and available resources.

**Perceptions about athletic departments and strength and conditioning programs: Additional findings.** A review of the researcher’s extensive field notes provided data about the physical conditions of the strength and conditioning facilities. An analysis of these field notes revealed that strength and conditioning facilities were similar in some respects and different in other respects. For example, three weight room facilities appeared to be fairly new and featured large areas of space that supported mostly Olympic racks, dumbbells and barbells, and machines. These three weight rooms were organized in an orderly fashion (e.g., all Olympic racks were together, and so were the dumbbells and machines). The flooring of these facilities consisted of a rubbery surface, which one strength coach reported was installed to sustain heavy weights and
exercise. These weight rooms were well-lit, and one of these three weight rooms featured music playing in the background. There were a variety of mirrors in these three weight room facilities, and each of the weight rooms had free weights (barbells and dumbbells) placed in front of them so student-athletes could watch themselves train.

Conversely, the weight rooms at three different universities appeared to be older and featured less space (compared to the three fairly newer facilities). These weight rooms were not as well-lit as the newer weight rooms, but they were still organized in an orderly fashion (e.g., Olympic racks, dumbbells and barbells, and machines were located together). However, the exercise equipment and machines were much closer together in some areas of the weight rooms because available space was limited. All of these three lower-end weight rooms featured music playing in the background and assistant strength and conditioning coaches training student-athletes. These weight rooms also contained a variety of mirrors that also had free weights placed in front of them so student-athletes could watch themselves train.

In summary, each weight room reflected individually unique characteristics, but they all featured an organizational structure, which one strength coach reported was structured specifically to help maintain flow throughout the workout, assume safety within order, and help the strength coach to encourage effective and intense workouts.

Mission Statements

RQ1: Perceptions of athletic directors regarding mission statements. Mission statements have functional value to athletic directors and athletic departments. For example, five out of five athletic directors offered their perceptions about mission statements. Participants reported that mission statements play a utilitarian role in their
day-to-day activities and that they believe department operations personnel should reflect upon these mission statements. Some athletic directors mentioned how important it is to align their department operations with those of their respective university’s mission statements. For example, one athletic director said, “In the big picture, we have to make sure that what we’re doing is tracking along the lines of fulfilling the mission, and ultimately our responsibility is to do what’s right for the university.” Another athletic director shared a similar perspective: “We make sure everything we do aligns with that [the mission statement]. Are we helping to grow the university? Are we providing a great experience for the fans and donors that come to events? Are we trying to grow revenues?…” One athletic director also noted how important it is to consider the goals of the university mission statement when establishing and pursuing departmental goals:

Well, it [the mission statement] plays a role because, of course, with my bias, we [the athletic department] are an important function of the university. We are not some clandestine organization. I’ve never wanted athletics to be thought of as separate from the university.

Overwhelmingly, athletic directors perceived both their university and/or their athletic departments’ mission statements to have great value. For example, during the interviews, two athletic directors were able to sternly recite the mission statement very succinctly and accurately. Another athletic director kept both the university mission statement as well as the athletic department mission statement located on his desk. This athletic director smiled as he read the athletic department’s mission statement. Another athletic director laughed during the interview and reported, “Our [athletic department’s] mission comes up often in the administrative meetings that I hold. We have to make sure
what we are doing adheres to that.” Overall, athletic directors perceived mission statements to have great value and have very practical usage. Daily application of the principles reflected in these mission statements helps to illuminate the overall goals of the constituents who developed these mission statements.

**RQ2: Perceptions of strength and conditioning coaches regarding mission statements.** Individualized mission statements are not perceived to be as prevalent to strength and conditioning coaches but both university and athletic department mission statements carried some basic and serviceable value. For example, two strength and conditioning coaches mentioned how mission statements played a role in their strength and conditioning programs. One strength and conditioning coach mentioned the mission statement assists in the recruiting process because it sets the philosophical foundation for program operations, while the other strength and conditioning coach mentioned that it is important to remain within the framework of his university’s mission statement. Two strength and conditioning coaches had their athletic departments’ mission statements located within their offices, and they were very proud to show them off during their interview.

Here, the findings illustrate that only 3 strength and conditioning programs out of 12 MAC athletic departments have mission statements. This shows that for some colleges and universities, maintaining a university and athletic department mission statement provides sufficient guidance; however, in some cases, specialized strength and conditioning mission statements are also preferred as a method of providing additional specificity. For example, one strength and conditioning coach explained that mission statements are important and necessary at multiple levels within an organization: “The
athletic department's mission statement... to me, I couldn’t read it to you verbatim, but the university has a mission statement, and so does the athletic department. We also have a mission statement, but they all go within the same framework.” This coach reported that he uses the strength and conditioning mission statement to help his program by staying within the university mission’s framework, which illustrates that even though all three mission statements are important, each mission statement is more specialized and very necessary.

The fact that only 3 strength and conditioning programs out of 12 have a mission statement does not mean that programs are void in goals. Even though many strength and conditioning coaches reported that they do not have an official mission, they did offer perceptions about their program in a similar fashion by explaining the overall goals of their program. For example, strength and conditioning coaches by and large adhere to the specific goals of strengthening student-athlete performance and injury prevention through strength and conditioning programs. One strength and conditioning coach explained that his main goal is to produce a program that is safe, balanced, and progressive. That coach leaned forward during the interview, maintained eye contact with this study’s researcher, and sternly stated,

First and foremost, it [the strength and conditioning program] has to be safe. Every day, we are looking for ways to improve how we do and teach an exercise. Safety is the most important and the biggest concern when designing our program. The second--is it effective? Is it producing the desired results? Also, we want to make sure it’s efficient. Are you getting the most out of it that you can in the most efficient way with the least amount of time? Also, is the program
balanced? Is it meeting the needs of every athlete of every sport--understanding that we are not weightlifters or bodybuilders. Understanding that each athlete, each team you’re dealing with, has specific needs, making sure it’s safe, efficient, and balanced for each team.

All strength coaches mentioned that they adhere to strength and conditioning theories when helping students achieve their strength and conditioning goals, such as the sliding filament theory, the progressive overload theory, and the general adaptation syndrome. Adherence to these theories helps to establish sound scientific practices that strength coaches can apply with student-athletes in their strength and conditioning programs.

Another strength and conditioning coach warned that coaches should add the goal of coaching with consistency because at times the strength and conditioning program can be entirely interpretive and thus must be subject to criticism from administrators and head sport coaches. That coach stated,

One of the hardest parts of my job is being consistent. You know, if you have a loyal girlfriend and she cheats on you one time, that’s all you’re going to think about. If we have an off day, that’s all they’re [student-athletes] are going to think about. If you [strength and conditioning coaches] can’t bring energy or you can’t do this for the day, then why is it okay for them [student-athletes]? You know, whatever kind of day I am having, it doesn’t matter. If the head coach gets mad at you or your wife gets mad at you, you can’t flinch. These kids, as hard as you are on them, they have to work their asses off for you every day.”
This coach’s eyes widened during the interview as he shrugged his shoulders and added, “It’s [the strength and conditioning profession] subjective. If coaches think their guys aren’t getting tougher, or their guys aren’t getting developed, well they can just fire you. You are the scapegoat.” Another strength and conditioning coach agreed that his goal is to lay the foundation down by paying attention to detail, having a sense of urgency, and working consistently hard in the weight room.

Four other strength and conditioning coaches mentioned that the major goal of their program is to teach student-athletes important life lessons that they can apply long after using the strength and conditioning program. For example, one strength coach mentioned that he views his strength and conditioning program as an educational process, where a student-athlete can learn about hard work, dedication, and commitment. Another strength and conditioning coach mentioned that his overall goal was to teach the team how to inherit camaraderie, chemistry, and confidence. Two other strength and conditioning coaches mentioned how the educational process takes time. They noted that their program is not always understood at first, but after their student-athletes have been mentored and introduced to the foundational characteristics of a strength and conditioning program, they begin to appreciate the benefits more fully. Finally, two strength and conditioning coaches specifically noted that strength and conditioning programs are truly justified and serve an important role within intercollegiate athletics by helping each individual to reach his or her team and individual goals. For example, one strength and conditioning coach mentioned how no coach within the athletics department can make or break a program in such a short amount of time as the strength and conditioning coach. When speaking about these important life lessons mentioned above,
that strength coaches help to teach student-athletes, two coaches leaned forward in their chairs, pointed their finger on their desk and tapped it while they spoke, as well as raising their voice, and their eyes widened.

Although these program goals were not specifically mentioned within individual mission statements held by various MAC universities, it is important to note that the strength and conditioning participants still adhere to specific goals and have specific intentions to reach specific objectives. Here, the strength coaches in the MAC illustrated this by offering their perceptions which center around their goals and program ambitions, and how to specifically attain them.

**RQ3: Comparison and contrast of the perceptions of athletic directors and strength and conditioning coaches regarding mission statements.** The perceptions offered by both athletic directors and strength and conditioning coaches reflected similarities as well as distinct differences. It is first significant to mention that all 12 universities within the MAC are similar in the fact that they all have university mission statements. Out of the 12 universities, 9 athletic departments have mission statements that are separate and distinct from their universities’ mission statements. Participants reported that although mission statements play a role in their day-to-day activities and are helpful to program operations, they are also vague. Three athletic directors explained that in order to help add more focus to department operations, their athletic departments have developed their own mission statements. One athletic director explained the process:

Yes, the university has a mission/vision statement, and then underneath the umbrella of the university, every department within the university has its own
mission statement that links up with the university’s mission and strategic plans.

So that is pretty straightforward and fairly common in most organizations. This athletic director also added that the athletic department’s mission statement was developed through a cooperative process: “Ours was developed in a collaborative manner. Again, all of our coaches, our student-athletes, and even some of our alums and donors were involved in the process.” Another athletic director mentioned the strategic importance of having an individualized mission statement and how it helps to further focus on operational duties: “Well, we have developed our own mission statement that influences how we operate our department more closely than the university’s mission statement.”

Two strength and conditioning coaches mentioned the importance of further specializing their strength and conditioning program with their own mission statement in order to add yet more focus to overall goal achievement of their program. This makes the overall goals more serviceable to specific strength and conditioning guidelines that are philosophically set forth by the strength and conditioning coach. One coach said,

You adhere to the athletic department’s mission statement first and foremost, and that is why we do what we do on a daily basis. And then it just goes down into smaller tiers after that. It’s all about what we say and what we are trying to do within their mission. You know... I try to develop a quality relationship with each athlete that will last for a lifetime, and with our athletic department’s mission statement, that’s really about developing these students into successful people for tomorrow and that is obviously what we are trying to do down here. It’s not just
to develop a bigger, stronger, faster athlete, it’s teaching them principles for a lifetime, and all that’s going to help them.

The specialized mission statement development was necessary for more specific program operations. Another strength and conditioning coach added,

> You know, our mission statement is very basic, very simple, in the fact that it is going to tell the athlete or the coach ‘Here is what we are going to do, here is how we are going to do it, and here is what’s going to be needed to do it...’ and that’s it. And then from there, you go into the [weight] room, and you design a room based on that. Like I said, it lays the foundation.

Department and program mission statements have been crafted, as many of the participants mentioned, in response to the vagueness of the overall university mission statement, and they bring individualized focus to the operations of the athletic departments and (in some cases) strength and conditioning programs. Participants for this study perceived the process of developing each mission statement as a fundamental activity, and they also perceived mission statements as a functional and philosophical tool that provides guidance and structure to their everyday operations.

**Mission statements: Additional findings.** Additional findings supplied here help to distinguish more depth and analysis. As stated above, all 12 universities in the Mid-American Conference have constructed university-wide mission statements that reflect the values of their respective institutions (see Table 3). Of the 12 MAC universities, 9 of them have developed their own athletic department mission statement. Out of the 9 MAC universities that have both a university mission statement and an
athletic department mission statement, 3 strength and conditioning programs have their own individual mission statements.

Table 3

*Colleges that Have University Mission Statements, Athletic Department Mission Statements, and Strength and Conditioning Program Mission Statements*

<table>
<thead>
<tr>
<th>University Mission Statement</th>
<th>Athletic Department Mission Statement</th>
<th>Strength and Conditioning Department Mission Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>UT</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>BGSU</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>NIU</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ball State</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>EMU</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>WMU</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>CMU</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Akron U.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Miami U.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Ohio U.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Kent State</td>
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<td>X</td>
</tr>
<tr>
<td>Buffalo</td>
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<td>X</td>
</tr>
</tbody>
</table>

Total 12 9 3

A word frequency analysis of each university mission statement, athletic department mission statement, and strength and conditioning program mission statement
revealed the 16 most frequently appearing words. Of those 16, the following words appeared the most frequently: “student/student-athletes” (41 times), “excellence” (18 times), “commitment” (17 times), “community” (16 times), “provide” (14 times), “mission” (14 times), “research” (12 times), “development” (12 times), “education” (12 times), “champion” (11 times), “academics” (11 times), “national” (11 times), “learning” (11 times), “knowledge” (10 times), “engagement” (9 times), and “condition” (6 times). The following sections provide an in-depth analysis into the most frequent words that appeared in the mission statements of universities, athletic departments, and strength and conditioning programs.

**University mission statements.** The following words appeared most frequently in university mission statements in the MAC: “students” (22 times), “research” (12 times), and “community” (11 times). Out of 12 MAC universities, 8 mission statements mentioned students in their university mission statements. When mentioning students, these universities indicated that their overall goals involved affecting the lives of their students through the characteristics involved with the collegiate environment. For example, Ball State University’s mission statement claims that it is “...an innovative, supportive, academic community that inspires students by... engaging state, national, and international communities to enhance educational, economic, and cultural development” (Ball State University, 2012). Another fact is that the University of Toledo, Miami of Ohio University, Eastern Michigan University, and Central Michigan University (four total) have all stated in their university mission statements that they are student-centered universities. This implies that each mission of the university is centered upon the students. For example, the University of Toledo states in its mission statement that “the
mission of the University of Toledo is to improve the human condition; to advance
knowledge through excellence in learning, discovery, and engagement; and to serve as a
diverse, student-centered public metropolitan research university” (The University of
Toledo, 2012). These universities are illustrating that students are the nucleus and must
act accordingly.

Another frequently appearing word in MAC university mission statements is the
word “research,” which is mentioned 12 times in 9 out the 12 university mission
statements. This illustrates that most universities in the MAC view research as an
important function of their university. For example, The University at Buffalo mission
statement indicates the following: “As a public research university, we value our
institutional responsibility to bring the benefits of our research, scholarship, and teaching
excellence to members of our local and world communities in ways that enhance both our
understanding of the world and the quality of life for all people” (University at Buffalo,
2012). This shows that the University at Buffalo invests in research as a means of
reaching out to the local regional, and global communities while making a positive
difference. The University of Akron mission statement also indicates that research is a
priority (University of Akron, 2012). For example, their mission states: “... pursues a
vigorous agenda of research in the arts, sciences, and professions; and provides service to
the community.”

The third most frequently appearing word in athletic department mission
statements is “community,” which is mentioned in 9 out of 12 university mission
statements. These universities in the MAC use the word “community” in two different
ways. The first way it is used refers to the whole university as a community. For
example, Central Michigan University states in its university mission statement, “At Central Michigan University, we are a community committed to the pursuit of knowledge, wisdom, discovery, and creativity” (Central Michigan University, 2012). This illustrates the inner community goals of that respective university. The second way MAC universities use the word “community” in their mission statements refers to the university and the surrounding community. Eastern Michigan University provided a great example of this in their mission statement: “We strive to provide a student-centered learning environment that enhances the lives of students and positively impacts the community. We extend our commitment beyond the campus boundaries to a wider community through service initiatives, and public and private partnerships of mutual interest addressing local, regional, national and international opportunities and challenges” (2012). Here, the comparison can be made in MAC mission statements that some universities focus on the inner community, while others broaden their mission to focus on a wider community.

**Athletic department mission statements.** There were 9 athletic departments out of 12 that had individual mission statements. The most common frequencies in word analysis for the composite athletic department mission statements in the MAC include the following: “students/student-athletes” (15 times), “excellence” (10 times), “champion” (10 times), “academics” (9 times), “commitment” (8 times), “develop” (7 times), “mission” (6 times), “national” (5 times), “learning” (2 times), and “education” (1 time). This list includes 10 word frequency commonalities located in athletic department mission statements.
The most frequently appearing word in athletic department mission statements is the word “students/student-athletes.” Most athletic departments refer to students as “student-athletes,” which illustrates that student-athletes are firmly implanted in mission statements. This term frequently appeared along with the word “develop.” For example, the mission statement of Bowling Green State University’s athletic department emphasizes the importance of developing student-athletes as productive members of the community: “We develop commitment to self and dedication to community, and foster the integrity and welfare of our student-athletes” (2012). The mission statement of Ohio University’s athletic department similarly places emphasis on the importance of developing student-athletes: “The mission of Ohio University Athletics is to successfully develop the student-athlete as a person, student and athlete” (2012). Western Michigan’s athletic department mission statement also emphasizes the development of student-athletes: “Excellence in athletic programs is determined by academic achievement, the development of character, maturity, and a sense of fair play by student-athletes while being competitive” (2012). These mission statements imply that it is the mission of these universities to develop student-athletes into a desired outcome.

The second most frequently appearing words in athletic department mission statements are the words “excellence” and “champion.” The word “excellence” is more commonly scattered throughout 6 of the 9 athletic department mission statements, while 3 out of 9 athletic department mission statements use the word “champion” more often. The mission statements of these universities indicate that they pursue excellence in both academic and athletic endeavors. For example, Western Michigan University indicate in their athletic department mission statement that “excellence in athletic programs is
determined by academic achievement, the development of character, maturity, and a sense of fair play by student-athletes while being competitive” (2012). Similarly, Eastern Michigan University also emphasizes excellence: “Our mission above all else is to guide, support and inspire our student-athletes in their pursuit of excellence--academically, athletically and socially while maintaining a successful Division I-A athletics program” (2012). The University of Toledo athletic department mission statement also indicates that “The University of Toledo Department of Intercollegiate Athletics is committed to providing a broad-based athletics program for men and women that strives for academic and competitive excellence at conference, regional and national levels” (2012). What this illustrates is that athletic departments seem to support excellence in both academics and also athletics.

Although the word “champion” appears just as frequently as the word “excellence” in athletic department mission statements, it is far less common, only appearing in 3 out of 9 athletic department mission statements. In fact it most commonly appears in Miami of Ohio University’s athletic department mission and uses the word as its central theme for building a culture of champions. For example, the mission states, Champions are ‘those who win first prize; are clearly superior or have attributes of a winner; are a supporters of the greater cause; and fight tenaciously for the overall cause.’ In our department a champion is defined as one who exudes excellence in their approach to everyday life. It is a belief that 'part-time excellence' is not acceptable and your absolute best will be expected daily. We truly believe that our student-athletes learn more about life as winners than they do finishing anything less. The personal attributes of our student-athletes and staff
members are those of winners, focused on becoming a Culture of Champions.

(2012)

This illustrates that the word “champion” is central to Miami of Ohio’s mission. In a similar and more simplistic fashion, Northern Illinois University mentions in its athletic department mission, “We develop champions in the classroom, in competition, and in life” (2012). Bowling Green State University also emphasizes its commitment to building champions: “The Department of Intercollegiate Athletics at Bowling Green State University is committed to cultivating champions in academics, sport, and life. We are guided by the University’s traditions of academic excellence and service to community, and by its core values” (2012). These excerpts illustrate how the concept of “champion” in athletic department mission statements describes what each department believes to be a champion.

The third most frequently appearing word in athletic department mission statements is “academics,” which appears in 7 out of 9 athletic department mission statements. In most mission statements, the word “academics” is commonly used in conjunction with the word “student-athletes,” which indicates the importance of academics in the lives of student-athletes. For example, the Kent State University athletic department mission statement emphasizes the importance of achieving academic potential among student-athletes: “The Intercollegiate Athletic program at Kent State University competes at the highest National Collegiate Athletic Association (NCAA) Division I level (FBS for football) and provides select men and women with the opportunity, challenge and support to achieve their full academic and athletic potential, while operating as an integral part of the University's educational mission” (2012).
Interestingly, Ohio University’s athletic department mission statement indicates that it uses athletics and academics as a service to the community: “The mission of Ohio University Athletics is to successfully develop the student-athlete as a person, student and athlete. Athletics also contributes to the university through athletic and academic achievement, generates visibility, promotes institutional pride, enhances campus life and serves as a connection with alumni and fans” (2012). In both cases, it implies that MAC universities with athletic department mission statements value both academics and athletics and desire the two to meld into one.

**Strength and conditioning program mission statements.** From the 12 universities studied, 3 strength and conditioning programs have individual mission statements. As seen in Table 3, the words that appear most frequently in the mission statements of strength and conditioning programs include “conditioning” (5 times), “mission” (4 times), “student-athletes” (4 times), “provide” (3 times), “excellence” (2 times), “educational” (2 times), “develop” (2 times), “commitment” (2 times), “and champions” (1 time).

The most frequently appearing word in the strength and conditioning program mission statements is the word “conditioning.” In all strength and conditioning mission statements, this word is used to define the program is (as strength and conditioning program), and identify its goals (strength and condition the body). For example, Bowling Green State University’s strength and conditioning program mission statement states, “The Strength and Conditioning Staff believes in our Athletic Department’s commitment to fairness, teamwork, and an unwavering commitment to our students. We create effective and efficient strength and conditioning programs that ensure the best care
Table 4

*Word Frequency Counts in Strength and Conditioning Mission Statements*

<table>
<thead>
<tr>
<th>Word</th>
<th>No. of Mission Statements in which Word Appears</th>
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<tbody>
<tr>
<td>Conditioning</td>
<td>5</td>
</tr>
<tr>
<td>Mission</td>
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<tr>
<td>Student-Athletes</td>
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<td>Provide</td>
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<td>Develop</td>
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<td>Commitment</td>
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</tr>
<tr>
<td>Champions</td>
<td>1</td>
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</table>

for our teams” (2012). This description mentions both strength and conditioning as program goals.

The second most frequently appearing word in the strength and conditioning program mission statements is “student-athletes.” For example, Western Michigan’s strength and conditioning program mission statement states, “The mission of the Western Michigan University strength and conditioning program is to provide each student athlete with an opportunity to develop their physical abilities, through safe and objective training. Through these means the strength and conditioning program will attempt to improve athletic performance and minimize injuries related to athletic competition” (2012). This helps to illustrate the fact that in the MAC, strength and conditioning programs function as a student-athlete service, whereas, all student-athletes use strength
and conditioning programs to help improve upon performance and help to reduce injuries.

The third most frequently appearing word in the strength and conditioning program mission statements is the word “mission.” All three MAC strength and conditioning program mission statements use the word “mission” to introduce what their program’s mission will do. For example, Eastern Michigan University’s strength and conditioning program mission statement states, “Our mission is to develop strong minds within strong bodies through motivated coaching and education to produce successful leaders throughout the college experience and life” (2012). Bowling Green State University’s strength and conditioning program mission statement also states, “Our mission is to achieve excellence by safely enhancing the athletic performance of our student athletes. We pursue this objective through diligence, integrity, education, and sound strength and conditioning practices. We cultivate champion student athletes in 18 sports. Our goal is excellence. We achieve our mission as one team” (2012). These three mission statements help to support strength and conditioning programs function for the usage of student-athletes and specifically operate to strengthen athletic performance and also injury prevention.

**Organizational Infrastructure**

**RQ1: Perceptions of athletic directors regarding organizational infrastructure.** Athletic directors reported a number of factors that guide the philosophical organization of their own athletic departments. These factors include previous experience in athletic departments, available resources, staff size, daily duties, pressure to produce winning sport teams, and the demographical environment.
Participants also reported that these factors influence their preferences when making staffing decisions. One athletic director stated that most athletic directors operate from a similar philosophical basis: “There’s a couple standard models out there; not everything looks the same on paper, but there are a lot of similarities, I think. I’m just thinking of schools in our league. Everybody works off of a similar page.”

Professional profile information and materials gathered through data source triangulation illustrate that head athletic directors in the MAC have occupied their current roles as head athletic directors for a minimum of 1 year to a maximum of 15 years (see Table 5). They also have had a minimum of 8 years to a maximum of 24 years of administrative experience in athletic departments before assuming the role of head athletic director at their respective universities (see Table 5). They have also held a minimum of 1 administrative position before becoming a head athletic director, and held a maximum of six administrative positions before becoming a head athletic director (see Table 5, which describes the yearly career experience of athletic directors, and Table 5, which describes career paths in terms of job titles held before becoming head athletic director, educational degrees attained, and finally any NCAA committees they served on).

One athletic director attributed his knowledge and ability to prior jobs in which he helped head athletic directors to organize their departments: That athletic director keenly squinted his eyes and revealed, “By the time someone is an athletic director, they’ve probably seen a few structures, what they like and what they don’t like.” Most organizational structures in the MAC consist of a mean average of 1 athletic director,
Table 5

*Career Experience of Athletic Directors*

<table>
<thead>
<tr>
<th>Athletic Director</th>
<th>Years as Head AD at Current School</th>
<th>Years Experience before Head AD</th>
<th>Jobs before Head AD</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD1</td>
<td>11</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>AD2</td>
<td>6</td>
<td>10</td>
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<td>22</td>
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<td>AD5</td>
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<td>AD6</td>
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<td>16</td>
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<td>AD7</td>
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<td>3</td>
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<td>AD8</td>
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<tr>
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<td>10</td>
<td>21</td>
<td>5</td>
</tr>
<tr>
<td>AD10</td>
<td>4</td>
<td>24</td>
<td>3</td>
</tr>
<tr>
<td>AD11</td>
<td>1</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>AD12</td>
<td>1</td>
<td>8</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 6

*Career Paths of Athletic Directors*

<table>
<thead>
<tr>
<th>University</th>
<th>Job Titles Before Head Athletic Director</th>
<th>Education</th>
<th>NCAA Committees</th>
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</thead>
<tbody>
<tr>
<td>AD1</td>
<td>Associate AD, Div. II AD, Director of Development Marketing and Development</td>
<td>B.S. Education, M.S. Education, M.S. Sports Management</td>
<td>2</td>
</tr>
<tr>
<td>AD</td>
<td>Title</td>
<td>B.S. / M.A.</td>
<td>Notes</td>
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<td>---------------------------------------------------------</td>
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</tr>
<tr>
<td>AD2</td>
<td>Associate AD</td>
<td>B.S. Mass Communication M.B.A.</td>
<td>1</td>
</tr>
<tr>
<td>AD3</td>
<td>Executive Associate AD, Head AD, Senior Associate AD</td>
<td>B.S. Psychology M.A. Counseling and Student Services</td>
<td>0</td>
</tr>
<tr>
<td>AD4</td>
<td>Deputy AD, Senior Associate AD, Assistant AD, Director of Ticketing &amp; Marketing, Sports Marketing</td>
<td>B.S.</td>
<td>0</td>
</tr>
<tr>
<td>AD5</td>
<td>Deputy AD, Senior Associate AD, Associate AD, Academic Counseling, Director of Student Life Compliance and Operations</td>
<td>B.A. Human Development M.A. Sports Administration Ph.D. Higher Education</td>
<td>2</td>
</tr>
<tr>
<td>AD6</td>
<td>Senior Associate AD, Assistant AD Compliance, Assistant AD Academic Services, Assistant AD Marketing</td>
<td>B.A. M.A.</td>
<td>4</td>
</tr>
<tr>
<td>AD7</td>
<td>Senior Associate AD/Chief of Staff, Assistant AD Sport’s Marketing, Event’s Coordinator</td>
<td>B.A. M.A.</td>
<td>0</td>
</tr>
<tr>
<td>AD8</td>
<td>Senior Associate AD, Big Ten Conference Administration GM</td>
<td>B.A. Communications M.A.</td>
<td>0</td>
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<tr>
<td>AD9</td>
<td>Senior Associate AD, Associate AD, Assistant AD, Head Strength Coach, Graduate Assistant</td>
<td>B.S. Education M.S. Education Ph.D. Education</td>
<td>0</td>
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</tbody>
</table>
4.75 associate athletic directors or deputy athletic directors, and 3.75 assistant athletic directors—all of whom help to make up the executive branch of the athletic department. All athletic director participants explained that the executive branch is organized both around internal and external duties within athletic departments. One athletic director explained, “You have what you might consider your internal operations of your department and the people who are focused on what’s happening inside the department. And then you have people who work the external side, and everyone has to work together, but people don’t always have overlapping duties. So I think there’s sort of an internal-external component. In some places, the numbers are way bigger than others, but I think that’s sort of a general concept of who’s working with your stakeholders, so to speak, your external stakeholders, and who’s working with the internal piece. There’s a different org. chart at every school.”

<table>
<thead>
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<th>Table 6 continued</th>
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<td>AD10</td>
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</table>
The executive branch of MAC athletic departments are also supported by an administrative branch of both faculty and staff, which includes program directors, program coordinators, managers, graduate assistants, secretaries, interns, and others. This branch of athletic departments in the MAC universities makes up the infrastructure of most athletic departments, comprising as high as 42% of one department and as low as 27% at another. One athletic director explained that this ratio is usually determined by preference, needs, and what can be provided. That athletic director said, “There is not a limit. It really is driven by what your limits are, what your needs are. To a certain extent, I think it may be driven by your location, the market you’re living in; if you are in a small town, a small venue, you still need people raising money, but are they doing the same kinds of things, or do you need people to get on a plane and go because your local population is really small?” This means that although many schools within the MAC have some organizational characteristics that are comparable, the makeup of an individual athletic department has some internal aspects that help to determine staffing needs.

When considering official obligations and daily activities, all participants in this study mentioned that there are no typical days and that no two days are alike. However, they did explain that they are busy every day. One athletic director mentioned that the position is not like a regular 9-to-5 job or a 40-hour-a-week job. Although no two days are alike, athletic directors did offer a variety of daily responsibilities that seemed consistent across all participants. One of these responsibilities involved athletic directors attending meetings. Athletic directors mentioned the importance and necessity of meeting with their administrative staff, with coaches, with student-athletes, with donors, with the
university president, and even with the board of trustees. For example, one athletic
director mentioned that at a minimum, meetings occur on a weekly basis:

Somewhere in almost any segment of the year, you would probably find some
kind of structured meeting, either with a coach, staff member, or general
departmental meeting that we have once a week. You would also find that I would
be involved with potentially some event operations component, whether it’s with
sports that report to me. I need to sort of be there to be the administrator.

Another athletic director commented on the fast-paced nature of these meetings:

I think that the nature of this role, and the job, and the fact that we have a lot of
sport programs, and a lot of student-athletes, and a lot of events, and a lot of
donors, and people we want to see. So, that’s just the way it is. So, every day is
that way. The pace is extreme, but if you thrive in that environment, then it’s a
good way to do it. I wouldn’t want it any other way.

Another athletic director also mentioned meeting with athletic directors from
other universities in the MAC and other athletic directors in the NCAA. Athletic directors
also mentioned that, depending on the sport and the season, they spend time attending
athletic events. Finally, three athletic directors mentioned that they are officially
obligated to make sure their student-athletes have high graduation rates and also have a
positive college experience. One athletic director said, “You know, I tell everyone our
goals involve two things. One is that we need our student-athletes to graduate. And then,
secondly, I want them to have a positive experience here as a student-athlete, and so, if
we focus on those two things, then I think we’re heading down the right track.”
Based on the perceptions offered by participants in this study, athletic directors have many obligations throughout the day and many different constituents to meet with. Additionally, the nature of the workdays are very fast-paced, and attendance is required at many different events. Athletic directors are obligated daily to make sure student-athletes have a positive experience in intercollegiate athletics and attain a degree from their respective institution of higher learning. Finally, athletic directors reported that their official obligations vary from day to day and that they are highly engaged and involved with the daily demands of their occupation.

**RQ2: Perceptions of strength and conditioning coaches regarding organizational infrastructure.** Strength and conditioning coaches mentioned a number of factors that guide the philosophical organization of their individual strength and conditioning programs. These organizational factors were identified by the participants for this study and include previous experience in strength and conditioning programs, available resources, staff size, daily duties, and pressure to produce winning sport teams. These organizational factors that were identified also helped the strength and conditioning coaches to coordinate systematic order within their own programs. Strength and conditioning coaches also shared perceptions that these organizational factors also contained problematic issues with the administrative function of their programs.

From an organizational standpoint, all 12 MAC strength and conditioning programs staff their programs with one to two head strength coaches (averaging 1.33 per program), one to five full-time assistants (averaging 1.75 assistants per program), zero to four graduate assistants (averaging 1.66 per program), and an assortment of interns. Strength and conditioning coaches in the MAC have held their position as head strength
and conditioning coach for an overall average of 3.41 years. Before those coaches became head strength and conditioning coaches at their respective MAC university, they had an overall average of 7 years of experience as a strength and conditioning coach (either as an assistant, a graduate assistant, or head strength coach elsewhere). On average, these head strength and conditioning coaches have held 2.41 positions before being hired in as the head strength and conditioning coach at their respective university.

One problematic perception of organizational factors that head strength and conditioning coaches reported is that they are understaffed and that these staffing deficits present unique and vexing challenges. For example, three coaches mentioned that the understaffing of their program places limits on the type of proper supervision that is required to achieve maximum results. One coach stated,

Football staff has nine coaches, one for each position, and we [strength and conditioning coaches] have two full-time and three graduate assistants for the same number of guys. So I think the athlete is set up for a disadvantage. You have to go back to safety first; it’s an injury waiting to happen if you have one coach train every single athlete through the mechanical and technical aspects of their lifts or their runs.

Another coach also reported a concern over safety issues as a result of understaffing:

For me personally, and I think it goes for all strength coaches, just being understaffed, not from a standpoint that we can’t get the job done ourselves, but it’s just really a safety concern for the athlete when you only have one set of eyes
for 40 athletes. So the biggest thing is the coach-to-athlete ratio; that’s why we need more staffing.

To complicate the staffing issues further, another strength and conditioning coach mentioned a second problematic organizational factor and added that instead of having qualified staff, his program is provided with graduate assistants to help implement the strength and conditioning program. This could be considered a difficult situation as another strength and conditioning coach also pointed out the distinct differences between full-time assistants and graduate assistants. He said the differences are primarily reflected in their experience, education, and certification. Another strength and conditioning coach pointed out that the athletic department budget often determines how many assistants a strength and conditioning coach is permitted to retain on staff, meaning it is often the limited resources of an athletic department which determines the staffing numbers of a strength and conditioning program.

Strength and conditioning coaches reported that in addition to problems with staffing, strength and conditioning coaches also encounter other problematic issues that directly relate to the organizational infrastructure of a strength and conditioning program. For example, one issue two strength and conditioning coaches reported is that as a result of a limited amount of staff to train their student-athletes, scheduling ultimately becomes a problem. They mentioned that one programmatic goal is to achieve as high of a coach-to-athlete ratio as possible. One coach mentioned that to achieve this goal, it is important to get one team in the weight room at a time: “What becomes an issue more than anything is scheduling; we try the best we can to keep one group in the weight room at a time. That way, we can focus as much of our energy and attention onto that one sport as
we can.” This goal of achieving a high coach-to-athlete ratio requires strength coaches to schedule teams from early in the morning (e.g., 5 a.m. to 6 a.m.) to late in the afternoon (e.g., 3 p.m. to 5 p.m.). This large range of scheduling times is done to accomplish the scheduling goal of making every team feel that it is getting the best attention, focus, energy, and time from the strength and conditioning coach that they can get. Participants feel what could help to aid the scheduling process is the number of additional staff and the number of additional facilities.

Another organizational factor that strength and conditioning coaches identified is the intricate design of each varsity team’s specialized workouts. Strength and conditioning coaches reported that they must meet the organizational challenge of constructing each workout for each specific sport in a cohesive manner in order to get the maximum results for every athlete’s specific needs. One strength and conditioning coach reported that this is a daunting task because he must keep specific injuries in mind while organizing each workout: “It takes a lot of planning and a lot of hours prior to that team coming in [to the workout room] to plan ahead, and you know which athletes are injured, so you can work around that when you design the cards” (Cards are weightlifting routines on paper for student-athletes to follow during their workout. Cards usually contain a plan of action, which includes which exercise to perform, how many times to perform it, and in what order to perform the workout). He disclosed that it takes a lot of hours to plan and that he personally has prepared six hours for one half-hour lift. Another strength and conditioning coach reported the importance of workout organization: “You want to make it perfect because if you’re unorganized for one day, that is pretty much how you are
going to be viewed.” This coach also mentioned the importance of having a back-up plan in place in case the original organized workout fails to meet or exceed expectations.

Another crucial organizational factor strength and conditioning coaches mentioned is the general flow (traffic) in the workout room at one time. For example, one coach mentioned that student-athletes must not waste time in the weight room and should always be working in a fast, efficient, intense, and safe manner:

So any time I set up a program, I just ask, How is this going to flow? How is it going to be efficient? How is it going to keep each and every athlete safe? So, you don’t need a lot of space to do that, but sometimes you need to be innovative, and you have to be creative; you step on the floor, and you have to do it yourself, first and foremost, to know if it is going to work for you or not.

Another coach mentioned that time is a crucial factor, as many different student-athletes will require training throughout the day, so adhering to these safe, efficient, fast, and intense workouts must happen to assure proper flow in the weight room.

One strength and conditioning coach reported how he uses technology to help guide the flow and organization of the workouts. He mentioned that he uses computer software to help guide athletes to specific exercise equipment; this software also provides information to each individual student-athlete about how much weight he or she is to use on each exercise. Many strength and conditioning coaches try to utilize computer software because it helps to organize workouts and track the progress of team and individual workouts. Excel and Pro-trainer are two examples of computer software designed to assist strength and conditioning coaches.
Strength and conditioning coaches identified another organizational factor that they perceived to be noteworthy of how they arrange and manage their days, which includes their official obligations. All strength and conditioning coaches who participated in this study perceived no typical days to be the same, yet they did list some official obligations that they might engage in on any given day. One of these obligations includes training student-athletes, which coaches have stated comprise a majority of their day doing, and, depending on the season, they will spend more or less time with the student-athletes. The participants also mentioned that they spend a lot of time in meetings with administrators, head sport coaches, medical staff, and student-athletes.

Participants reported that in order to become head strength and conditioning coaches and meet the required obligations of the position, they must possess the desired qualifications. Strength and conditioning coaches identified these qualifications to include experience, education, and certifications. Experience should entail working in some sort of capacity as a strength and conditioning assistant, graduate assistant, and even head coaching experience. One strength coach reported that the proper education desired should include a bachelor’s degree (preferably in exercise science) and ultimately a master’s degree (also preferably in exercise science). He also mentioned that the most widely recognized certifications desired for the profession come from two different organizations: the National Strength and Conditioning Association (NSCA) and the Collegiate Strength and Conditioning Coaches Association (CSCCA). Conversely, another strength and conditioning coach mentioned that none of these certifications, education, experience mattered as much as one key crucial factor: who you know:
I don’t think having your certification really matters at all, for the most part [laughs]... The funny thing is there is not one football coach in the nation that has a football coaching certification. That’s pretty funny to me! So, I mean, in my opinion, you could suck at your job. You could get a 71% on all of your exams, but all of a sudden, you’re qualified.

This perception points the finger at other coaching professions in intercollegiate athletics and asks the pointed question: Why doesn’t everyone have to be certified to coach? This discrepancy in perception also prompts a bigger question: What is more important in the strength and conditioning profession--what you know or who you know?

Lastly, strength and conditioning coaches stated that they are usually obligated to be at work from very early in the morning (e.g., 5 a.m. to 6 a.m.) to late in the afternoon (e.g., 2 p.m. to 6 p.m.) for anywhere from five to seven days a week. This estimation spans well over 60 hours per week. Additionally, all strength and conditioning participants mentioned that they divide the teams they train into timed working slots that might range anywhere from 1 hour to 12 hours (The lengthier times are usually for the sport of football, and football teams could have one full-time strength and conditioning coach). These regimented time blocks help strength and conditioning coaches to organize team and individual lifting sessions and help them to stay on task with their official obligations. Interestingly, two strength and conditioning coaches reported that because of the tremendous time requirements of their profession, maintaining relationships with family members are challenging. One coach stated that his wife is “a saint” and that without her support, he could not carry on in the profession. Another coach cautioned against spending too much time at work and stated that there comes a time when coaches
must put their family before their profession and have the proper amount of energy to spend time with them.

**RQ3: Comparison and contrast of the perceptions of athletic directors and strength and conditioning coaches regarding organizational infrastructure.** One common theme expressed both by athletic directors and strength conditioning coaches is the pressure to win that flows through the organization of an athletic department and down to the strength and conditioning program. Participants in this study clearly express a common goal: to have successful student-athletes in the classroom and during intercollegiate competition. Athletic directors and strength and conditioning coaches reported that achieving this goal results in a great amount of pressure. For example, one athletic director reported that “the whole issue and student-athlete piece is whether this coach can recruit the type of athlete who can be successful in the classroom or recruit the student-athlete that can make good social decisions. At the same time, I’m not going to trick anyone here; I want to win, you know? I want to hire a successful coach to make all of us look good.” Another athletic director reported, “It’s Division I athletics, so there is pressure to win and be successful, so we spend a lot of time on that.” Athletic directors spend much of their time focused on making sure the revenue programs (e.g., football, men’s basketball, etc.) are successful and that the right types of coaches are hired to guide successful campaigns. One athletic director said, “There is certainly a different emphasis on sports [revenue sports] and resources, and is there a spectator component, and how does that drive what you do? Those are different conversations if you are talking about how we are managing a program.” The significant issue is the pressure to win that
flows through the organization of an athletic department and flows down to the strength and conditioning program.

Similarly, strength and conditioning coaches also reported that they experience a great amount of pressure to win as well. Strength and conditioning coaches feel pressure to produce winning teams—so much so that two strength coaches mentioned that they must work each day with a sense of urgency. One reported that he reminds his staff and student-athletes of this pressure to win daily and also reminds them that his job is on the line if they do not win. Another coach explained that his administration places these demands to win on the strength and conditioning program but does not understand that when he needs something for his program, he needs it immediately. This sense of urgency has resulted in what one strength and conditioning coach referred to as “a constantly stressful profession.”

Also, one strength and conditioning coach mentioned that there is a difference in the pressure to win between revenue sports and non-revenue sports. He explained that because of the exposure and monetary demands placed on revenue sports, there is more pressure to have winning seasons. He also reported that this imbalance is a challenge because he wants his non-revenue sports to win and feel important too, but the reality is that he needs the revenue sports to have winning seasons.

Three strength and conditioning coaches shared their perceptions about who really holds the ultimate responsibility for wins and losses. One strength coach mentioned that although strength and conditioning coaches play a critical role in developing student-athletes, they are not coaching during intercollegiate competition (the head sport coach and his/her assistants are responsible for that). Furthermore, two strength coaches also
reported that the head sport coach is ultimately responsible for recruiting each student-athlete, and although strength and conditioning coaches meet and are part of the recruiting process, they do not offer scholarships (again, that is up to the head sport coach). In short, both athletic directors and strength and conditioning coaches reported that there is an incredible sense of pressure to win but that they can only do so much.

Lastly, conducting in-person interviews enabled the researcher to observe similarities and contrasts among various organizational factors within the offices where the interviews took place. For example, the researcher took extensive field notes during the interviews, which revealed that the offices of most athletic directors were larger than the offices of strength and conditioning coaches. In fact, one strength and conditioning office was so small that one desk was placed directly inside of it while another desk was placed in the weight room directly outside the office: there was no physical way to fit the two desks into that one office. Conversely, athletic directors’ offices overlooked a basketball arena, a football stadium, a track and field stadium, and a campus. The walls in the offices of athletic directors contained dry-erase boards and color pictures of athletic drama (teams winning dramatic games). A common physical similarity among the interviews was the desks, which were mostly filled with paperwork. Some desks were cluttered, while other desks had order, and on every desk sat at least one framed picture of family members.

Organizational infrastructure: Additional findings. In the MAC, 3 athletic directors have more than 10 years of experience at the same university, and 6 athletic directors have 5 years of experience or fewer as the head athletic director at the same university. All but one athletic director have acquired both a bachelor’s degree and a
master’s degree, while 2 hold Ph.D.s and 2 are doctoral candidates. These educational backgrounds illustrate the educational requirements needed to be a head athletic director in the MAC. The other category of job titles held (and title descriptions) shows the pathway that participants followed to become head athletic directors.

A fact here is that out of 12 MAC head strength and conditioning coaches, only 2 have 10 years of experience or more working at the same institution as the head strength and conditioning coach (no information was available for one university). However, of the 12 strength and conditioning coaches in the MAC, only 4 have fewer than 10 years of strength and conditioning coaching experience. Also, 8 strength and conditioning coaches have both a bachelor’s degree and a master’s degree. Lastly, 9 out of 12 strength and conditioning coaches have certifications within their field of employment, which confirmed what strength and conditioning coaches mentioned during the interviews--i.e., that they are obligated to attain a vast amount of experience, education, and certifications.

Resources

**RQ1: Perceptions of athletic directors regarding resources.** Resources were identified as a paramount factor in the operations of athletic departments in the MAC. Every athletic director who participated in this study reported how crucial and vital resources are to their department. For example, one athletic director reported the challenges of increasing departmental costs in relation to the current economic environment. That athletic director explained,

> We have been subject to the increases as well as the potential cuts, so even though our budget was increased, we still had a couple of positions we had to cut last
year. Those are decisions that are sometimes made mutually as far as who or what spots, and in the past they have just been made for us.

In order to help combat the increasing expenses, athletic directors reported on the importance of generating revenue for their athletic departments. For example, one athletic director reported,

Probably one of the bigger issues you have is to assure that you are generating appropriate resources, whether it be through ticket sales or private donations or sponsorships--and then the internal resources that you get through the university. That’s probably the biggest thing... you want to be sure that you’re generating enough resources for your program to function, and that’s a big part of it.

Athletic directors also reported that when their teams perform at championship levels, it is easier to sell tickets. For example, one athletic director reported that one of the issues athletic directors face is selling tickets (see Table 6 below). In a six-year span, MAC athletic departments averaged 5% of total revenue that contributed to their overall department revenue stream. At the high end, is a university in Ohio, with 8.80% of revenue earned from ticket sales in the overall revenue stream, while at the low end is a university in Michigan at 1.09% of revenue earned from ticket sales in the overall revenue stream.

Another example of a revenue stream for athletic departments is student fees. During the past 6 years, 10 out of 12 universities within the MAC used student fees to help generate resources for their department (some used more, some used less). One athletic director explained, “Well, being a non-BSC, we don’t get huge conference dollars, bowl revenue dollars, or TV dollars that the 6 BSC leagues do. Now we are
raising just as much money as anyone in the league and we are at the bottom of the institutional/student fee support.” Another athletic director reported,

You are still dealing with really significant salaries at the higher levels and budgets that are just unbelievable. How does all that fit into a college setting?

Well, here we do in the sense of the money that we get from the university is really based on what percentage of the big student fee pot do we get? Every year we have to apply for that money.

Table 7 lists the ticket sales and student fees for each university, which illustrates what athletic departments count as revenue.

Table 7

*Revenue from Ticket Sales and Student Fees in 2011*

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<th>University</th>
<th>Ticket Sales</th>
<th>Student Fees</th>
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Note. Information in this table obtained from C. Schmaars et al. “USA TODAY’s Sports College Athletics Finances” in *The USA TODAY*, October 2, 2012.

On a six-year average, the MAC used 36.67% of student fees to help fund their athletic departments. At the high end is the University of Akron (using 71.73% student fees to support their athletic department), while Western Michigan and Central Michigan are at the low end (using 0%). It is important to note that while Western Michigan and Central Michigan used no student fees, they are at the high end of school funds given to support the athletic department, which implies that they count revenue earned from the school in a different stream (see Appendix G).

Another avenue of revenue athletic departments draw from is the fundraising through donors, alumni, and fans. One athletic director explained his philosophy as it pertains to fundraising. That athletic director used the phrase “friend-raiser” to describe the process whereby members of the athletic department befriend potential donors before asking for donations. That athletic director explained that it is important to have as many events as possible throughout the year. These events include athletic contests (games), luncheons, parties, raffles, golfing events, etc. On a six-year average, MAC universities counted 6.67% of fundraising contributions to add to their overall revenue stream. At the high end is the university in Ohio with 18.55%, while at the low end is the university in New York with 1.14%.

Lastly, athletic directors mentioned the economic realities of their departments and the competition between programs within their departments (including strength and conditioning programs). One athletic director mentioned that the philosophical perspective he takes is determined in part based on the needs of each team. He noted that
not every team gets the resources that they desire. Resources were an overriding perception that all athletic directors mentioned in relation to critical issues they face.

RQ2: Perceptions of strength and conditioning coaches regarding resources.

Resources were also indicated as a crucial factor to the strategic operations of strength and conditioning programs. Strength and conditioning coaches who participated in this study indicated the significance of their budgets. They mentioned the importance of staying within their planned budget, which is typically an annual budget. One coach reported that he splits his budget and sets up appropriations between himself and his assistants. That coach stated, “Our number-one goal is to never go over budget, so I handle three things [three smaller budgets] that are one budget in that manner. I meet with our financial athletic director and get updates as to things that come up.”

In addition to budgetary concerns, strength and conditioning coaches also identified other factors related to resources they believed to be important. For example, one strength coach reported how important it is to foresee new equipment purchases to replace older equipment. That coach explained to accomplish this, a strength and conditioning coach must have a bit of persuasive ability, political skill, thorough planning, and leadership,

That all depends on the situation, and it depends on if you have been at a place for a while or if you just come into a place. There’s different ways to attack it, but number one, you need to do your research; you need to do your homework. It’s not enough to just walk into somebody’s office and just say, you know, ‘Hey, I think we need a new weight room, and it’s going to cost a hundred thousand dollars and, you know, we need it.’ They will want to know why. You better be
able to back all the ‘why’s’ and the ‘how’s’ and the cross-references and the different companies that you have already researched. And you need to be able to pursue and present a creative plan, and multiple ways to attack that plan, as opposed to just walking in and asking for something and expecting that person, because they are the head person in charge, to come up with all the answers.

Number two, I think that you need to establish some type of relationship with that person in charge that demonstrates that you are somebody who can be trusted. You are somebody who is responsible. You’re somebody who has brought about some level of success in your time there.”

Strength and conditioning coaches who participated in this study recounted that from a resource perspective, discussions about equipment purchases occur frequently between strength and conditioning coaches and their superiors (usually athletic directors). Although the coaches may not request a complete overhaul of strength equipment, there may be minor purchases that the strength and conditioning coaches might request that could be addressed through an annual budget.

Lastly, one additional factor related to resources was identified by participants in this study. Two strength and conditioning coaches mentioned how seeking financial resources for both their student-athletes and themselves is a critical issue. One coach stated that he is seeking to get financial resources for his student-athletes during the summer so they can use the strength and conditioning facility throughout the whole year. Another coach mentioned how, in general, a strength and conditioning coach should go about seeking a financial raise. He stated how important it is to do research to find out what other strength and conditioning coaches are making within the conference. He also
mentioned how important it is to speak to administration about getting performance-based raises when conference championships are won.

Resources are an important consideration for strength and conditioning coaches, as they must work with what they have, and as one coach put it, they are all in the same boat: “underpaid and at times under-appreciated.” As indicated by the participants, strength and conditioning coaches must be persuasive when seeking resources and must provide logical rationale based on a clear understanding of what other strength and conditioning programs within the MAC receive. In order to remain competitive, strength and conditioning coaches must be fully informed about the type and amount of resources being invested into MAC strength and conditioning programs.

**RQ3: Comparison and contrast of the perceptions of athletic directors and strength and conditioning coaches regarding resources.** There are some clear similarities and differences among the perceptions of athletic directors and strength and conditioning coaches regarding resources. For example, both sets of participants value resources, but they view resources differently. Athletic directors reported that they think of resources in terms of the big picture, or from a macro perspective. On the other hand, strength and conditioning coaches revealed that they view resources in terms of being beneficial to a singular program, or from a micro perspective. Athletic directors oversee many programs that fall under the governance of the athletic department, and the ultimate responsibility for the success or failure of athletic programs rests upon their shoulders. Strength and conditioning coaches work with a pre-determined annual budget. Athletic directors must consider expenses in terms of paying scholarships, funding the coaching staff, providing buildings/grounds maintenance, and handling other expenses. Strength
and conditioning coaches must consider expenses in terms of equipment purchases and weight room maintenance. Athletic directors view athletic department purchases in the range of millions of dollars (annually), while strength and conditioning coaches might view program purchases in the range of thousands of dollars. Athletic directors also view resource revenues in terms of ticket sales, student fees, school funds, contributions, rights and licensing, and other revenue, while strength and conditioning coaches do not generate revenue for athletic departments.

Although there are some similarities and differences in the way they view resources, athletic directors view resources primarily in terms of the big picture, or from a macro perspective. For example, one athletic director explained, “Obviously, you have to look at the budget implications of any decision and you have got to look kind of long term at it.” Whereas athletic directors consider resources at the grander scale, strength and conditioning coaches, however, view resources mostly through the small picture (making their program successful within the parameters of their annual budget), or from a micro perspective. For example, that coach explained, “I’m looking for what’s going to help me now over the next fiscal year. What’s going to help me maximize these athletes that I have under my watch right now.”

**Resources: Additional findings.** Data analysis revealed additional findings concerning resources in the MAC. Specifically, most NCAA Division I athletic programs do not generate enough funds to sustain themselves. During a recent five-year span (2006 to 2010), no athletic department within the MAC sustained itself independently. They all were forced to rely on support from overall university resources (see Appendix G). Of the 12 universities in the MAC, the mean average percentage of overall university funds that
athletic departments cost was 4.66% of their respective budgets. At the high end is Eastern Michigan University, whose athletic department consumed 7.54% of the university’s budget. At the low end is the University at Buffalo, whose athletic department consumed 2.27% of the university’s budget. Table 7 indicates the percentage of the university budget consumed by the athletic department in the MAC during the five-year span from 2006 to 2010.

Table 8

Percentage of University Budgets Consumed by Athletic Departments in the MAC during the Five-year Span from 2006 to 2010 (National Center for Education Statistics [NCES], 2013)

<table>
<thead>
<tr>
<th>University</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Michigan University</td>
<td>7.54%</td>
</tr>
<tr>
<td>Central Michigan University</td>
<td>6.08%</td>
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<tr>
<td>Miami of Ohio University</td>
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<td>Bowling Green State University</td>
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<td>4.23%</td>
</tr>
<tr>
<td>Kent State University</td>
<td>3.88%</td>
</tr>
<tr>
<td>University of Toledo</td>
<td>3.33%</td>
</tr>
<tr>
<td>University at Buffalo</td>
<td>2.27%</td>
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</table>
Communication

RQ1: Perceptions of athletic directors regarding communication.

Appropriate communication within athletic departments was indicated as a decisive factor in successful organizational institutions. In fact, all athletic directors interviewed in this study reported on the importance of communication with a variety of constituents. These include internal constituents, e.g., those within the athletic department. They also include external constituents, e.g., those outside of the department. The following section provides a detailed examination of how athletic directors perceive communication and how it helps their department to function within a higher education setting.

Athletic directors who participated in this study explained that there exists an internal communicational element within their department, which requires that they effectively communicate with administrative staff, coaches, and student-athletes. Some athletic directors reported that they accomplish this effective communication by holding department meetings with staff members and/or coaches. Others use technological resources to communicate, e.g., phone calls, emails, and weekly newsletters. One athletic director reported that it is very important to be an effective communicator; that way, the message is spread properly throughout the athletic department. That athletic director explained,

It’s your ability to get things done with people who don’t report to you. It’s really easy if you’re the boss to get stuff done; you just tell someone to get it done. It’s pretty easy for me to get things done in the athletic department because I am the boss; I just tell people what to do. I am not trying to be flippant about that. The
best people in an organization are often the people who can get things done with people who don’t report to them, and I see it in our organization. The most successful people are the people one or two layers down from me, but they have got such positive relationships with other people in the department that other people will do things for them when they are asked even though that person is not necessarily their boss. That gets back to how good you are with people. How do you treat other people? Do you have people in your corner, so to speak?

This athletic director clearly values communication from a top-down governance structure, whereby the message starts with the athletic director, and it filters down to all internal constituents.

Athletic directors interviewed in this study also indicated the importance of communicating with external constituents outside the department. One athletic director explained the importance of maintaining constant communication with the president of the university. That athletic director explained that because of the visibility of intercollegiate athletics, the athletic director and the president should always have effective communication. That athletic director explained,

It’s [presidential involvement] very important because athletics is such a public piece of the university. I jokingly say sometimes that if we look sideways, then it’s in the paper, and that I’m doing fine until the next phone call, which could be anything. So I never want to surprise the president. I always want the president to know what’s happening. I don’t want him going to a meeting and having someone approach him and say, ‘I heard this,’ and he doesn’t know anything about it, so that’s not good, and again, that’s going back to communication.
Three athletic directors who participated in this study reported how important it is to communicate with other external constituents outside of the university, such as potential donors, alumni, and fans. They reported that they try to accomplish this communication with social media outlets, such as Twitter, Facebook, and their own personal athletic department website. One athletic director explained, “It’s much easier to communicate now because of email and because of social media then it was 5 to 10 years ago.”

Some athletic directors interviewed in this study reported that one can communicate properly with all the necessary constituents (i.e., those mentioned above), yet certain problematic issues may still arise. One athletic director mentioned how his communication message can sometimes get muddled as it passes through the department from head athletic director to associate athletic director(s) to assistant athletic director(s) to program directors/managers to head coaches to assistant coaches to graduate students and interns to student-athletes, and finally to other departments on campus. Another athletic director mentioned that because the athletic department has a social component, there might be a difference in opinions concerning what should and should not be communicated. This athletic director explained that those difference in opinions can sometimes cause individuals within the department to seek employment elsewhere. He said,

Sometimes there is a difference in opinion in the way some things should be done, and that’s fine. That’s individualism that plays into everyone, but ultimately everybody knows somebody has to make a decision, and then we have to move forward. Sometimes it’s me, or sometimes it’s the head coach, or sometimes it’s
the associate athletic director, intern, graduate assistant, etc. that’s making the decision. Somebody has to make the decision, and we have move on after that.

Communication is perceived by all athletic directors who participated in this study to be critical to the function, the organization, and the structure of their athletic departments. Because the athletic directors interviewed for this study have internal and external constituents, they reported that it is critical to be an effective communicator and that it could be detrimental to an athletic department if they did not have good communicational skills.

**RQ2: Perceptions of strength and conditioning coaches regarding communication.** Strength and conditioning coaches who participated in this study indicated that communication plays a crucial role in their programs. In fact, strength and conditioning coaches reported that proper communication is critical to the successful operation of strength and conditioning programs and that they must be able to effectively communicate throughout the athletic department with a number of different constituents. These constituents include all sport coaches, administrative staff (athletic directors), medical staff, equipment managers, facility managers, and student-athletes.

Cooperative communication was indicated as a helpful component for strength and conditioning program operations. For example, all strength and conditioning coaches interviewed for this study reported that there must be cooperative communication between the strength and conditioning coach and the head sport coach in order to design and implement the best strength and conditioning program for that specific sport. One coach explained that it could be difficult and confusing at times to deal with and report to
so many different personalities but that he has to remain flexible. This strength and conditioning coach said,

Maybe you have a certain philosophy that you use in your strength program, but you have to give and bend a little bit, be flexible with how you do things, to make sure you are doing what the sport coach wants done in the weight room. Maybe it’s not the way you like things, but as long as it can be safely done and effectively, then are we going to do what makes the sport coach happy with what we are doing in weight room.

Another coach added how important it is for head sport coaches to trust in what their strength and conditioning coaches are doing for their sport program. This coach mentioned that it is very important to make the “mini-bosses” happy, and make those head sport coaches feel highly valued in the weight room. Additionally, one strength coach reported how there has to be one clear voice derived from these communication meetings with the head sport coach, and it must filter through to the student-athletes.

Strength and conditioning coaches must also engage in collaborative communication with other constituents who are directly involved within athletic departments. For example, one strength and conditioning coach reported the importance of effectively communicating with the medical staff in order to help tailor workouts for student-athletes who have experienced various types of injuries. One coach explained,

A lot of times, we will get information from a particular sport. The athletic trainer for that sport will give me the information the day before the team trains, as far as who is injured, who has limitations. We review all that stuff before we work with that team.
Another strength and conditioning coach reported that his head of medical staff is his best friend in the whole department and that he meets with him at least four to five times a day. Strength and conditioning coaches also reported to communicating equipment staff, to make sure the student-athletes have the appropriate lifting materials and apparel for the workout. There are also times when strength and conditioning coaches reported that they must properly communicate with facility managers, when certain issues such as facility maintenance and upkeep arise, such as structural attention or damage to facility.

Strength and conditioning coaches also indicated that they must have coordinated communication with administrative superiors as well. In fact, two strength and conditioning coaches mentioned how important it is to meet regularly and communicate with specific administrators within their department. One strength and conditioning coach mentioned that he wants to be seen by these administrators, even if this consists of a quick visit just to say hello. Another coach reported that he meets with his specific supervisor, who is an administrator in the department. This coach reported,

I will meet with my direct supervisor probably once a month to go over any issues or concerns in the weight room. There might not be anything going on, but at least to touch base, to talk about things in the future--graduate assistants, budget--things like that.

All other strength and conditioning coaches who participated in this study reported that they meet with administrators (athletic directors, associate athletic directors, or assistant athletic directors) who are their supervisors on a consistent basis to review and discuss similar issues and or concerns. They all perceived these meetings to have
significant importance because they ensure that proper directives are being communicated from athletic department administrators to strength and conditioning coaches while program needs and wants are being properly communicated from strength and conditioning coaches.

Finally, all strength and conditioning coaches mentioned the importance of properly communicating with their student-athletes. One coach reported communication as the most important component in making his program work. Another coach reported that being able to relate to the student-athlete experience is important because the student-athletes are able to build more trust in someone who has gone through a similar experience. It was clear, all strength and conditioning coaches indicated that communication at all levels is a critical component of successful program operations, and they reported that proper and appropriate communication must exist throughout the entire athletic department.

**RQ3: Comparison and contrast of the perceptions of athletic directors and strength and conditioning coaches regarding communication.** There are some distinct similarities and differences among the perceptions of athletic directors and strength and conditioning coaches regarding communication. Athletic directors focus communications on a wide number of constituents, as do strength and conditioning coaches, but whereas athletic director’s focus on the function, organization, and structure of the athletic department as a whole, strength and conditioning coaches are more focused on the function, organization, and structure of a singular program within the athletic department. Athletic directors communicate regularly with the university board of trustees, university president, athletic director administrative staff, other department directors, head sport
coaches (including the strength and conditioning coach), program managers, and student-athletes. Strength and conditioning coaches meet almost exclusively with specific administrative staff members (usually their direct supervisor), head sport coaches, department directors (usually involving medical staff), and finally the student-athletes. Whereas athletic directors spend most of their time with other administrators inside and outside the athletic department, strength and conditioning coaches spend most of their time with student-athletes. Whereas athletic directors meet on a regular basis with head sport coaches, strength and conditioning coaches might meet with head sport coaches at every training session (according to perceptions shared by all participants, head sport coaches often attend workout sessions). Whereas athletic directors meet with administrators outside of the athletic department, strength and conditioning coaches interviewed for this study reported that they do not meet with administrators outside of the athletic department. Finally, whereas athletic directors meet with fans, alumni, and potential donors, strength and conditioning coaches did not report meeting with these constituents.

**Communication: Additional findings.** During each respective interview, participants were asked to convey their perceptions about critical issues they face on a daily basis, to which most replied, “communication.” A review of the researcher’s extensive field notes taken during the interviews provided an interesting perspective about participants’ body language while they offered their perceptions about communication and the importance of being an effective communicator. Specific body language and raised tonal projections implied that communication was indeed a critical factor for department and program operations. For example, during the interview process,
two athletic directors and one strength and conditioning coach gestured in an animated fashion when speaking about communication (i.e., sweeping hand motions, wide eye contact, raised eyebrows). As these participants explained and described the complex communication channels, two strength and conditioning coaches’ eyes squinted while they listed the various constituents with whom they communicate on a regular basis, and it took some time to mention them all. All participants mentioned the importance of communication, and these field notes illustrate different body language as they spoke about it.

Projected 10-Year Trends/Leadership

**RQ1: Perceptions of athletic directors regarding intercollegiate athletics and strength and conditioning programs.** Athletic directors reported that there could be some possible trends in overall intercollegiate athletics, including strength and conditioning. For example, two athletic directors mentioned that there could be more conference movement, which could cause more of a revenue gap between larger conferences and the MAC. Another possible trend one athletic director reported that he foresees is increased responsibility for athletic directors and college presidents. This athletic director mentioned that because of the extreme exposure intercollegiate athletics have to the constituents outside higher education, it is eventual that more responsibility will be placed on athletic directors. One athletic director reported that athletic directors might be asked in the future to assume additional and multiple positions within the university, such as a vice-president or others. This increased responsibility may also influence the qualifications administrators will look for when hiring an athletic director. One athletic director explained,
The people that are being hired in a segment of athletic departments, I’m talking about the athletic director, may not be coming from athletics. Could be, now I’m seeing it from the private sector, board of trustees members, vice-presidents moving across campus. It’s not just the football coach jumping into the chair anymore, or it’s not the person working his/or her way up.

Another athletic director reported that there could be changes in the NCAA. This athletic director noted that these changes could include additional pay for student athletes and changes in rule structure for certain sports. This athletic director further explained,

You know, some of the NCAA proposals last summer were really kind of transforming that have not been necessarily passed, but they are pretty significant. Additional money for student-athletes, changing the rule structure, streamlining this and that. It will be interesting to see where all of this is in about 5-10 years because this is a big change.

Athletic directors also mentioned changes they foresee in strength and conditioning programs. Two athletic directors mentioned that there could be additional staff members added to strength and conditioning programs. They noted that this change could come from increasing demands to have individualized programs for each sport. This also causes another trend that two athletic directors mentioned. Some revenue head sport coaches reported that they view their strength and conditioning coach as part of their own staff. For example, when changes are made (hiring or firing), these coaches will want to bring or take their strength and conditioning coach with them. One athletic director explained the problematic administrative issues that occur when employment vacancies arise: “The other side to that for me as an administrator is who is going to call
the shots then... in terms of when someone is hired and fired. And that’s happened here already.” Both of these athletic directors also noted that this could cause budgetary problems, as they might not have the funds to add another strength and conditioning coach when a new head sport coach is brought in. One athletic director noted this as a major problematic trend for which he did not have an immediate answer.

Lastly, one athletic director mentioned that he did not foresee any dramatic changes taking place in strength and conditioning programs during the next decade. This could stand in stark contrast to what the other athletic directors have mentioned, except he stated very clearly that he might not be the right person to ask.

**RQ2: Perceptions of strength and conditioning coaches regarding strength and conditioning programs.** Strength and conditioning coaches perceive many possible 10-year trends within the profession. One of those perceptions is increased administrative responsibility and an accumulation of all programs within sports performance into one area overseen by the strength and conditioning coach. What this means is that the strength and conditioning coaches could become an associate or assistant athletic director. Four strength and conditioning coaches mentioned The Ohio State University’s head strength and conditioning coach, Mickey Marotti, as an example. As one coach explained, Marotti, an associate athletic director, oversees all of sports performance: strength and conditioning coaches, athletic trainers, sports psychologists, sports nutritionists, equipment managers, and anyone else whose job description fits with the sports performance category. Obvious repercussions of strength and conditioning coaches receiving more administrative responsibility include what three coaches labeled as “higher salary, pay, and benefits.” One strength and conditioning coach mentioned that
this could make way for more multi-year contracts instead of annual renewable contracts. Another strength and conditioning coach mentioned that more administrative responsibility could cause more exposure and could lure additional strength and conditioning coaches into the profession.

Lastly, three strength and conditioning coaches mentioned that they see strength and conditioning coaches becoming more specialized, which means they would exclusively train one intercollegiate sports team. This is already happening in the NCAA in many BCS conferences in the sport of football and men’s basketball. One strength and conditioning coach reported that this could cause budgetary problems by adding staff; he also reported that if strength and conditioning coaches are tied to certain specialized sport programs, then this could cause a problem for the strength and conditioning coach if that head sport coach is let go and another is brought in, meaning their job security could be jeopardized.

RQ3: Comparison and contrast of the perceptions of athletic directors and strength and conditioning coaches regarding strength and conditioning programs. There are similarities and differences regarding athletic directors and strength and conditioning coaches perceptions about strength and conditioning programs. The similarities between athletic directors and strength and conditioning coaches include more involvement with strength and conditioning coaches, but the differences stem from how that involvement will happen. For example, one athletic director who participated in this study reported that although he wanted to add more staff, it just was not feasible. Strength and conditioning coaches who participated in this study also agreed that they foresee the addition of more staff members in strength and conditioning programs. They
also noticed that athletic departments are making financial cuts. Some athletic directors and strength and conditioning coaches perceive strength and conditioning coaches as members of revenue-based sport programs, such as football and men’s basketball. What this means is that when head sport coaches come and go, they may take or leave the strength and conditioning coach. One athletic director reported that this has happened in his department, and it hindered the rest of the non-revenue programs because they benefitted from that strength coach who was let go in order to make room for a new strength and conditioning coach.

**Projected 10-year trends: Additional findings.** A review of the researcher’s extensive field notes revealed that three athletic directors and three strength and conditioning coaches mentioned that they project an “arms race” to continue during the next 10 years focusing on establishing superior facilities. One athletic director shared some before-and-after pictures of a renovation to one of his athletic facilities. He spoke proudly about the improvements and mentioned he was very pleased with the final product. Another athletic director pointed at a picture in his office of himself at an athletic contest and then mentioned that that athletic contest was when he won a championship ring he was wearing on one of his fingers at the time of the interview. The picture depicted some student-athletes celebrating after a game, and the ring was very big and shiny. This athletic director then pointed out the window to his view of the facility, smiled, and mentioned that this facility was where that championship game took place. Both of these athletic directors mentioned the importance of having the best facilities in the conference. Another athletic director held a different perspective of the arms race. Field notes revealed frustration in his verbal cues when the topic of an arms race and the
condition of facilities were mentioned. He mentioned how important it was to have good facilities. He reported that the need not be the best facilities but that it is very important not to have obvious deficiencies.

Three strength and conditioning coaches also acknowledged the existence of a facilities “arms race.” Two strength coaches were very proud to show off their facilities, and field notes revealed that they seemed very happy as they spoke about the equipment housed in their respective weight rooms. Field notes revealed that one strength coach viewed the arms race with frustration because he had an older weight room facility in the MAC and did not foresee any projected renovations during the next 10 years, although he believed that renovations were needed.

Athletic directors and strength and conditioning coaches displayed some emotional characteristics when commenting on their respective facilities. Most were very pleased with at least a few aspects of their facilities and were very excited to show progress in renovations. Some others displayed emotional frustrations over the arms race. These findings illustrate that athletic departments in the MAC do compete in a facilities arms race and that some feel ecstatic about it while others feel just the opposite.

**Conclusion**

Based upon the perceptions that athletic directors and strength and conditioning coaches have about strength and conditioning program, there are several areas that they perceive to be extremely important. More specifically, these findings suggest that there are six thematic areas that are important to athletic directors and strength coaches.

First, athletic directors and strength and conditioning coaches both shared their perceptions about their respective athletic departments and also their strength and
conditioning programs. Both find great value in the roles that they play in establishing successful sports programs and base their working relationship on trust; however, while athletic directors reported that their relationships with strength and conditioning coaches were satisfactory, strength and conditioning coaches depicted these relationship a little differently. Strength and conditioning coaches reported having lukewarm working relationships with their respective athletic directors but wished to have stronger relationships with them; at the same time, athletic directors understand the philosophical reasoning’s for the way their strength coaches design their strength training programs.

Secondly, athletic directors and strength and conditioning coaches both perceive mission statements to be valuable although the degree to which they value mission statements varies. Some athletic departments and a few strength and conditioning programs have developed their own mission statements in order to address what they perceive to be vague university mission statements.

Third, athletic directors and strength and conditioning coaches both reported that various factors influence their organizational infrastructure. These factors include previous experience in similar roles at the same institution or other institutions, available resources, the size of the staff they oversee, their daily duties, the effects of their environment, demographics, and finally the ultimate pressure to produce winning sport teams. The findings from this section also suggested that there clearly exists a difference in organizational perspectives—e.g., athletic directors’ focus on macro management practices and strength and conditioning coaches’ focus on micro management practices.

Fourth, these findings show that athletic directors and strength and conditioning coaches both expend a considerable amount of time and energy focusing on resources.
Athletic directors and strength and conditioning coaches both perceive resources to be extremely significant in the operations of their departments and programs. They revealed that certain issues, such as expenses and revenues, affect budgetary appropriations and that proper management skills are important to the overall organizational infrastructure.

Fifth, communication was perceived by athletic directors and strength and conditioning coaches as tremendously important. Athletic directors perceived communication with both constituents from inside and outside the department as critical to the everyday operations of their respective athletic departments. Strength and conditioning coaches also place tremendous importance on communication and reported that they must effectively communicate with a wide variety of constituents from inside their respective athletic departments. A notable difference is that athletic directors communicate with constituents both within the athletic department as well as outside of the athletic department, while strength and conditioning coaches communicate primarily with constituents inside the department.

Sixth, athletic directors and strength and conditioning projected several important trends to occur during the next 10 years. Athletic directors foresee more conference movement, NCAA provisions, and additional staff to provide specialized training in strength and conditioning programs. Strength and conditioning coaches foresee strength and conditioning coaches assuming increased administrative responsibilities, gaining higher organizational status and increased salaries, and receiving additional benefits. Both also recognized and projected the continuance of the arms race concerning facility construction and renovation in order to keep up with other teams in the MAC as they build and renovate their athletic facilities.
In summary, the perceptions both of athletic directors and strength and conditioning coaches provide a portrait of strength and conditioning programs within the MAC. These programs are perceived as being very important, highly resource intensive, utilized by all student-athletes, and heavily ingrained in the structure of their respective athletic departments. Strength and conditioning programs are perceived as being very important within their departments and as having a sound philosophical rationale for their existence—i.e., to strengthen athletes for intercollegiate performance and reduce crucial and brutal injuries that may occur during competition.
Chapter Five

Discussion

This chapter includes a discussion about the findings and is organized into six primary sections: (1) perceptions about athletic departments and strength and conditioning programs, (2) mission statements, (3) organizational infrastructure, (4) resources, (5) communication, and (6) projected 10-year trends/leadership. First, athletic directors’ and strength and conditioning coaches’ perceptions about strength and conditioning programs both provided insight into a variety of issues within athletic departments of universities in the Mid-American Conference (MAC). Some similarities and some differences exist in the perceptions of athletic directors and the perceptions of strength and conditioning coaches, particularly regarding the value of strength and conditioning programs. In addition, the working relationship between athletic directors and strength and conditioning coaches is based upon trust. Because of the organizational separation of their offices, athletic directors and strength and conditioning coaches must trust each other to ensure that important duties are performed and the best interests of each department are maintained and supported.

Secondly, mission statements provide university athletic departments and strength and conditioning programs both with philosophical and practical guidance. Although few strength and conditioning programs currently have mission statements, the trend toward creating increasingly specialized mission statements seems to be important in light of the desire and expectations placed on all departments within universities for more efficient and increased production.
Third, within the organizational infrastructure of athletic departments, there exists a high level of specialized expertise relating to the occupational duties of constituents who are employed at MAC universities. These specialized duties align with the types of activities bureaucratic theories predict will occur in growing bureaucracies and how these bureaucracies function on a daily basis.

Fourth, one of the most critical issues both athletic directors and strength and conditioning coaches face is the lack of desired resources. For example, both athletic directors and strength and conditioning coaches mentioned that economic limitations and rising costs are obstacles and that BCS leagues have certain economic advantages over Non-BCS leagues (including the MAC).

Fifth, athletic directors and strength and conditioning coaches identified communication as an important factor in the operations of both athletic departments and strength and conditioning programs. However, whereas athletic directors indicated they are satisfied with the level of clarity achieved when communicating directives, the strength and conditioning coaches felt the directives could be at times very ambiguous. Further discussed is the top-down philosophy of managing a department as it relates to bureaucratic theories.

Sixth, athletic directors and strength and conditioning coaches provide 10-year trends focusing on the challenge to maintain budgetary restrictions and adapt to the current economic environment while at the same time experiencing an increase in growth and exposure.

This chapter also includes five recommendations for practice. These recommendations center on a number of aspects, including the following: (1) mission
statement development for all athletic departments and strength and conditioning programs; (2) staffing strength and conditioning programs appropriately; (3) taking a realistic and compromising approach based on empirical data for resource justification; (4) implementing degree requirements, such as a communications degree with a minor in sports management or business management (for athletic directors) and exercise science or physiology (for strength and conditioning coaches); and (5) organizationally separating (a) strength and conditioning coaches from (b) staff of any other sport so that strength and conditioning coaches exist exclusively as strength and conditioning staff members on university organizational charts.

Finally, in addition to recommendations for practice, this chapter also includes five recommendations for future study. These recommendations include the following: (1) spending more time on campuses with participants than just the interview time, (2) using the same qualitative inquiry process to identify perceptions held by other constituents from within MAC athletic departments about their strength and conditioning programs, (3) using the same qualitative inquiry process to identify athletic directors’ perceptions about other programs located within their respective MAC athletic departments, and (4) using the same qualitative inquiry process to analyze strength and conditioning programs from conferences other than the MAC.

**Perceptions about Athletic Directors and Strength and Conditioning Coaches**

Athletic directors and strength and conditioning coaches offered many varied perceptions about athletic departments and strength and conditioning programs, but key perceptions centered upon the value, worth, significance, and purpose of strength and conditioning programs in relation to their respective athletic departments. For example,
all participants reported in the findings that their strength and conditioning programs are perceived as an important asset to the department in that strength programs build upon every student-athletes’ musculature, enhance peak intercollegiate performance, and help to reduce potential injuries that accrue during competition. These perceptions align with many other researchers and theorists, who define strength and conditioning programs in the literature review. In addition, these perceptions also confirm the importance that athletic directors and strength and conditioning coaches place on strength and conditioning programs at the NCAA Division I level (Aeberg 1998; Baechle and Earle, 2000; Brzycki, 1995, 1999; Darden, 2004; Jones 1970; Leistner, 1985, 1986, 1999; Mannie 2004; Mikula, 2005; Riley, 1982, 2005; Wolf, 2004). In fact, one athletic director summed up the importance of these programs this way:

The words speak for themselves, but it covers the range of not only motion and strength, but obviously the conditioning part of it. Also, the preventative measures related to the strengthening of student-athletes’ bodies to get them better prepared for their season and to prevent themselves [from injuries]. Similarly, one strength and conditioning coach wrote, “It [strength and conditioning programs] is balanced, progressive, and safe. We are always going to be a quality-before-quantity-based program.” In other words, athletic directors and strength and conditioning coaches perceive their strength and conditioning programs as important.

The findings also produced another point of discussion, which is the alignment of athletic directors’ and strength and conditioning coaches’ perceptions with the researcher’s impressions of the physical appearance of strength and conditioning weight rooms and athletic department offices on the intercollegiate campuses. For example, all
participants revealed the importance of strength and conditioning programs, but it was important for this researcher to use the relevance of his experience to view the actual strength and conditioning facilities, which in turn, resulted in some various impressions. In fact, while visiting many of the weight rooms of the MAC universities who participated in this study, the researcher found that his impression was one of respect and admiration. As mentioned earlier, the researcher has worked professionally for many years within a MAC strength and conditioning program both as a varsity football player and as a graduate assistant strength and conditioning coach. The accumulated time spent in these environments (about 10 years) has provided the researcher with valuable experience, certification, and education that has helped provide what qualitative researchers (Creswell, 2005; Patton, 1990; Rubin & Rubin, 1995) have referred to as significant opportunities for expert analysis and discussion.

As mentioned in the analysis, the researcher physically viewed six weight rooms; three weight rooms appeared fairly new and impressive, while three other weight rooms looked fairly older and less impressive. The lighting and the spacing of the newer facilities gave an open ambiance to the room. Conversely, the darker lighting and reduced space in the older weight rooms gave the facilities a cramped feeling. Nevertheless, the researcher was impressed with certain aspects of each weight room. All weight rooms were organized in orderly fashion. For example, all racks, dumbbells, barbells, and machines were located in the same proximity. This organizational system allows student-athletes to progress easily from exercise to exercise based upon the type of equipment they are required to use for that day. Understanding the organization of the room this system also allows new student-athletes to transition easily into their respective weight
programs. From a first-person’s perspective, the way that the observed MAC weight rooms were organized gave the impression that safety and effectiveness were indeed very important concerns for athletic directors and strength and conditioning coaches. For example, equipment was organized and easy to find, and at least one strength coach was in the weight room observing lifting routines.

Another example of the impressive organization of the weight rooms was the placement of mirrors throughout the room. Mirrors were conveniently placed so that strength and conditioning coaches and also student-athletes were able to watch and/or correct their lifting form. Some individuals unfamiliar with weight-lifting conventions may assume that mirrors are placed in strength and conditioning facilities for narcissistic reasons (and in a couple of cases that might be true), but both strength coaches and student-athletes use mirrors to critique their form and lifting techniques. Every facility in the MAC had their mirrors placed properly in front of the exercise equipment.

The dominant impression of this researcher is that athletic directors and strength and conditioning coaches perceptions were accurate when they claimed that their strength and conditioning programs have value; some athletic directors and strength and conditioning coaches just value their strength programs more, and some value them less. The evidence of this claim can be found in the construction and/or renovations of the newer facilities as opposed to the older ones.

Another point of discussion is the relationship between bureaucratic theories and the perceptions of athletic directors and strength and conditioning coaches. Just as growing bureaucratic institutions in higher education heavily rely on the technical design of rational and legal rules and are based on trust to perform duties and obligations
necessary for bureaucratic functioning, the participants in this study revealed how important it is to perform daily duties and meet daily obligations in order to accomplish the technical goals within the athletic department and strength and conditioning programs and maintain trust among one another that those duties will be fulfilled. According to Weber (2004), as bureaucracies grow, trust must exist among constituents from within an organization, and all constituents are bound by the rational and legal rules that are promulgated and disseminated. This study analyzed the perceptions of athletic directors and strength and conditioning coaches, which in Weber’s framework, can be characterized by the administrator and the employee, respectively. The participants in this study provided two different perspectives about one bureaucratic organization: athletic departments. Athletic directors, who assume administrative responsibility for athletic departments, provided the first perspective. The second perspective was provided by strength and conditioning coaches, who assume the role of employee and have the ultimate responsibility for operating strength and conditioning programs within athletic departments. Further, this perception is similar to one of Weber’s (1947) distinct characteristics of bureaucracy—i.e., the official works entirely separated from ownership of the means of administration and without appropriation of his position. Put simply, this means that athletic directors and strength and conditioning coaches have separate offices, and they are not combined. By making physical observations, the researcher was left with the impression that the separation of offices between administrator and employee is based upon trust and the belief that administrators and employees both will perform their duties with precise execution. This means that MAC athletic directors must trust in their strength and conditioning coaches to align their activities with desired program
objectives, while the MAC strength and conditioning coaches must trust in their athletic
directors to continue athletic department operations and act in the best interest of strength
and conditioning programs.

Additionally, Weber (2004) contended that strict rules should be established in
order to help set rational and legal guidelines about the expectations of employees.
Athletic directors who participated in this study shared their expectations of their strength
and conditioning programs, and these expectations focused on the rational and legal
philosophy of strengthening intercollegiate athletic performance and preventing potential
injury. However, strength and conditioning coaches who participated in this study also
indicated that, from a macro perspective, these rational and legal expectations (or rules)
could be considered vague. The athletic directors who participated in this study seemed to
care about their strength and conditioning programs and wanted to make sure that they
are fiscally responsible, but beyond that primary concern, athletic directors reported that
they perform other duties that require them to direct their attention to a large number of
constituents from both inside and outside the organization. Strength and conditioning
coaches who participated in this study seemed to care about their athletic directors’
support in obtaining resources for their strength and conditioning programs, and they
desired to have a closer working relationship with their athletic directors. Strength and
conditioning coaches further stated that they would like their athletic directors to be more
informed about the day-to-day duties of strength and conditioning coaches. These
expectations suggest that strength and conditioning coaches may not fully understand the
daily administrative duties that athletic directors must perform, which are varied and
numerous and extend beyond the concerns represented by just one individual program.
In summary, athletic directors and strength and conditioning coaches perceive strength and conditioning programs to have great value and purpose within their respective athletic departments, although the researcher’s personal observations of the weight rooms give the impression that some programs in the MAC are valued more than others. Perceptions also illustrated that athletic departments are structured with administrative leaders and their employees. In fact, occupations within these departments operate within rational and legal rules that help to distinguish official guidelines for constituents to follow and deeply rely on trust from the top-down. The findings in this study indicate that the rational and legal rules that athletic directors have set for strength and conditioning programs are ambiguous and can be implemented in a number of various philosophical applications (as long as they are safe and productive programs). Also, the perceptions provided by strength and conditioning coaches in this study indicate that trust has become an issue in relation to program operations. Strength and conditioning coaches do not entirely understand the day-to-day requirements of administrative employees (athletic directors) within athletic departments, and at times, this misunderstanding causes some strength and conditioning participants to mistrust the administration. Trust is essential to operations within these MAC athletic departments, but as this study has illustrated, at times, trust can be called into question.

**Mission Statements**

The perceptions of athletic directors and strength and conditioning coaches about mission statements displayed significant attributes that mostly centered on a utilitarian perspective--i.e., participants viewed mission statements as an important apparatus for department and program operations. Evidence of the importance of mission statements
can be seen in the fact that two athletic directors accurately and without hesitation recited their respective mission statements during the interviews. Two strength and conditioning coaches and one athletic director had their mission statements located on their desks, and they were quick to refer to them during the interviews. One athletic director also laughed during the interview process and reported that his mission statement is brought up at meetings on a regular and frequent basis. These participants were eager to discuss their mission statements, and they all smiled while doing so. They further gave the impression that they were proud of their mission statements and that they were committed to achieving the goals reflected in these mission statements.

Within higher-education universities in the MAC, mission statements help define individual and organizational characteristics as well as the intentions and ultimate goals that move these organizations forward. In fact, one athletic director revealed that “we make sure everything we do aligns with that [mission statement]. In the big picture, we are ultimately responsible to do what’s right for the university.” As it was also mentioned in the findings, some athletic departments have designed their own mission statements in order to focus more specifically on athletic department functioning. Some of the perceptions of participants in this study regarding the role of mission statements reflect Max Weber’s (1999) description of the “specialization of bureaucracies” (p. 43). Weber has noted that as bureaucracies grow, they become more specialized, and the proliferation and extension of mission statements into increasingly specific departments is an educational illustration of this principle. Department and program mission statements were crafted, as many of the participants mentioned, in order to eliminate the vagueness of and add specificity to the overall university mission statement, and these increasingly
specific mission statements bring individualized focus to the operations of the athletic
departments and (in some cases) strength and conditioning programs.

However, the advancement of more specific mission statements within higher
education institutions has not come without critique. Birnbaum (1988) warned that the
process of supplementing additional mission statements does not necessarily make
departments clearer; rather, mission statements can multiply and become sources of stress
and conflict rather than integration. Anderson (1968) also noted that, human interests can
frustrate efficiency because functionality of a program does not always coincide with
organizational goals. Athletic directors and strength and conditioning coaches who
participated in this study stressed the overall importance of the university mission
statement, but because of the growing and individualized demands placed upon the
unique goals and aspirations of athletic departments and their strength and conditioning
programs, some have developed additional mission statements. For example, some
university mission statements stress the importance of excellence in the classroom. In
order to harmonize with their university mission statements, some athletic departments
have increased the specificity of their mission to add that excellence is their mission for
student-athletes in the classroom and throughout intercollegiate competition (See
Appendix G). Athletic departments have grown, which is reflected in the fact that 9 out
of 12 departments developed their own mission statements.

As one athletic director revealed, in order to be successful, mission statements for
athletic departments and strength and conditioning programs must specifically define
their unique characteristics and specialized goals, yet they also must align with the
mission statement of the university. Athletic departments walk a fine line in developing
their mission statements, just as other departments within their respective universities do, yet athletic directors stated that it is imperative that their mission statements are in alignment with the mission of their respective universities. This alignment is important in (a) maintaining clarity and (b) eliminating confusion between the broad-based goals of the university and the more specific goals of the athletic department and its individualized missions. Perhaps the difficulties in achieving this alignment are one reason why only 3 out of 12 strength and conditioning programs have chosen to create mission statements. In fact, strength and conditioning coaches who participated in this study were aware of their university's mission statement and/or athletic department’s mission statement. Rather than creating a new mission statement for their program, the majority of strength and conditioning coaches applied their respective athletic department or university mission statement to their own program, while three felt compelled to form their own mission statement. The mission statements of the three strength and conditioning programs aligned with but were not identical to their respective athletic department or university mission statements. Rather, these mission statements reflected the specialized goals of their respective strength and conditioning programs.

Both athletic directors and strength and conditioning coaches who participated in this study perceived mission statements to be important in the administration of their daily duties. However, the participants mentioned the vagueness of university mission statements and their specific application to department and/or program usage, which resulted in some strength and conditioning programs to develop their own specialized mission statements. As researchers have pointed out, this is a perfectly natural process
among growing organizations within higher education, and the specialization of mission statements helps to define a department’s identity, goals, and objectives more clearly.

**Organizational Infrastructure**

Athletic directors and strength and conditioning coaches organize their daily tasks based on a variety of different duties. Whereas athletic directors spend the majority of their days meeting with constituents both inside and outside of the athletic department, strength and conditioning coaches spend the majority of their days training the various intercollegiate sports teams that use the facility. Athletic directors control the athletic department from a managerial perspective, whereas strength and conditioning coaches manage an individual program within the department and ultimately answer to the head athletic director. The offices of athletic directors and strength and conditioning coaches are clearly separated, organized, and defined, giving the impression to this author that this was done in order to eliminate confusion between power levels. It was also done to identify specific duties and help facilitate specialized tasks. So, even though the tasks of athletic directors and strength and conditioning coaches are different, the relationships between organizational levels are formalized.

Birnbaum (1988) explained the formal nature of formalized relationships: “The functions of each office are codified in rules and regulations, and offices are expected to respond to each other in terms of their roles, not their personal lives” (p. 111). For example, the findings revealed that the participants of this study participate in daily, weekly, and monthly meetings with constituents in a formal setting to address certain operations within the athletic department. The formal roles within an athletic department also helped to establish noticeable relationships; in other words, this author easily could
identify athletic directors and strength and conditioning coaches by looking at them physically (clothes they wore, offices of operations, duties and obligations they partook in while working, etc.).

Another example of organizational distinctions between athletic directors and strength and conditioning coaches, involved the physical presence of onsite interviews. The interviewee led the interviewer into a quiet place to conduct the interview. There were noticeable characteristics in the offices where the interviews were conducted. Athletic directors mostly were located in large offices with pictures depicting athletic prowess on the walls, while strength and conditioning coaches mostly were located in smaller (at times cramped) offices, with dry-erase boards on the walls. Athletic directors’ offices mostly featured spectacular views, while strength and conditioning coaches’ offices provided views of their respective weight rooms. These noticeable physical characteristics visually accented the hierarchical separation that exists between the head of a department and the head of a program.

Another organizational distinction between athletic directors and strength and conditioning coaches came from what Birnbaum (1988) observed as a systematic division of labor, where rights and responsibilities are based on hierarchy and control. This systematic division helps to prevent duplication of activities and daily tasks and prevents these duties and tasks from being overlooked. For example, strength and conditioning coaches usually oversee only their own programs. This helps those coaches to establish and develop high levels of expertise in specific areas concerning strength and conditioning programs. Athletic directors who participated in this study set the boundaries within the organization for strength and conditioning coaches by establishing
rules that focus on strengthening the student-athletes’ musculature and on injury prevention, but strength and conditioning coaches use their philosophical discretion when abiding by these rules.

Furthermore, these organizational roles within the MAC athletic departments reflect superior (the athletic director) and subordinate (the strength and conditioning coach) positions. The findings indicated that athletic directors assume the superior role, as they set directives for the entire athletic department, including the strength and conditioning program. Meanwhile, strength and conditioning coaches assume a subordinate role, whereas they receive directives and/or rules, and then they perform the specified tasks. Once the tasks have been completed, there are what Birnbaum calls “reports” (p. 112). Birnbaum explained that “superiors give directives to subordinates as problems are encountered so frequently that they become part of the standard operating procedures or SOP’s” (p. 116). Frequent problems that athletic directors cited in this study included financial and managerial issues, whereas strength and conditioning coaches cited individual issues related to budgetary concerns, staffing, scheduling, and difficulty in obtaining official support from superiors. This illustrates perceptions of athletic directors and strength and conditioning coaches about the organization and the functionality of structures that exist within higher education, and, according to both athletic directors and strength and conditioning coaches, they organize their departments/programs in order to resolve these frequent and occurring problems that athletic departments in the MAC often face.

According to the participants in this study, there exists a problematic issue with the organizational infrastructure of strength and conditioning programs. Athletic directors
reported that even though their departments’ budgets were increasing, athletic directors also have to make challenging budget cuts. They are also aware that strength and conditioning coaches feel that they are understaffed but cannot immediately address these issues because of budgetary constraints. In fact, one athletic director revealed, “I think strength and conditioning is an area that’s very important. I also think it’s an area that is not staffed here where we would like it to be in terms of full-time people.” From a health and safety standpoint, strength and conditioning coaches who participated in this study tried to make the point that additional staff members should be added to the strength and conditioning programs in order to address the increasing needs of all varsity student-athletes who wish to use the program. The strength and conditioning coaches reported that these additional staff members should be included in order to (a) prevent potential injuries that could occur in the weight room and (b) provide increased focus that could ultimately improve intercollegiate performance.

**Resources**

Economic realities affect institutional environments, causing resources to fluctuate in the MAC. Participants reported that insufficient resources was at the top of the list of critical issues that they face. In fact, athletic directors cited increasing departmental costs and staffing cuts as an economic reality for their respective departments, causing them to emphasize the importance of generating revenue to help pay for annual expenses. These resources typically are provided through different revenue streams, such as ticket sales, student fees, school funds, contributions, licensing rights, licensing fees, etc., and are distributed to programs throughout the athletic
department. According to the athletic directors, a great deal of emphasis is placed upon
generating resources through these revenue streams.

Even as resources are distributed throughout the department, athletic directors
stated that competition exists between individual programs within the department
(including strength and conditioning programs). The inner competition can cause stress
and animosity from within the department from program to program, whereas some
programs are counted as revenue sports (usually football and men’s basketball) while the
rest of the programs are counted as non-revenue (cost the department resources). Strength
and conditioning coaches who participated in this study also reported that they are
affected by rising costs and that they would like to have more staff to help with the taxing
demands of training a growing number of student-athletes. Strength and conditioning
coaches face these economic realities whereas athletic directors must distribute resources
throughout the department according to their philosophical ideology of how a successful
athletic department should look.

It is important to mention that economic realities and the distribution of resources are also
affected by the environments in which they reside. One athletic director noted that
environments constantly change and that institutions must stay responsive to these
changes:

The market lately hasn’t helped because nationally the economy hasn’t been that
great, but a lot of people care about the success of our programs and that is
helpful. The more victories we can get, the more people want to give to the
program.
Athletic directors also mentioned how critical it is to generate revenue through ticket sales by producing winning teams, but they also mentioned that there are certain teams in the MAC that may have a demographic advantage with ticket sales because their location offers an increased population that these teams can target, while other universities in the MAC may not have the same advantage. In addition, Birnbaum (1988) and Anderson (1968) noted that the environments in which they operate affect organizations, and according to the participants in this study, the current environment includes the problem of increasing costs, causing the resources to decrease. As a result, it could become increasingly more difficult to generate revenue through ticket sales in the current economic environment.

Another revenue source for MAC athletic departments is student fees. Athletic directors who participated in this study revealed that their departments were required to apply for a certain amount of their respective school’s student fees. They reported that receiving a portion of these fees was crucial for the funding of department operations because, as research has indicated, only 14 out of 120 NCAA Division I universities made enough profit to sustain their own budgets. In fact, one athletic director stressed the importance of student fees: “Student fees is a big part of the budget because state funding is getting cut from all institutions. I think only 14 made a profit out of 120. The rest of us have to get money from the institution to make athletics work.”

Athletic directors and strength and conditioning coaches also reported a high level of competition between conferences for monetary resources, using BCS conferences and non-BCS conferences (including the MAC) as examples, and the uneven economic playing field they face. Birnbaum (1988) wrote that resources can become inflexible
when they are focused or tied to networks of prestige or attractiveness within the university. Biggart (2002) further wrote that exchange relations are the root of social divisions, which means money and resources follow these values of prestige or attractiveness, rather than production and output, ultimately causing parity and alienation. The participants in this study reported that a definite advantage concerning resources exists for all conferences belonging to the BCS and that the gap between conferences in the BCS and the non-BCS conferences is widening. Weber (1947) and Birnbaum (1988) both referred to this advantage as status and power, which helps to establish classes within an organization. Weber (2002) stated,

In content, status honor is normally expressed by the fact that above all else, a specific style of life is expected from all those who wish to belong to the circle. Linked with this expectation are restrictions on social intercourse, that is, intercourse which is not subservient to economic or any other purposes. (p. 34)

Within these intercollegiate spheres of governance, there exists a legal order, which is supported and enforced by the NCAA. This philosophy divides conferences into two categories in Division I: BCS conferences and non-BCS conferences. During the past five years, no team within the MAC (a non-BCS conference) has been able to sustain itself through self-generated resources. They all have depended upon their respective universities to help pay for expenses. It will be interesting to examine how the landscape of intercollegiate athletics changes in the future concerning non-BCS conferences because, as Biggart (2002) stated, no market can expect to exist where profit does not exist. Furthermore, it will be interesting to analyze the economic realities and how these MAC athletic departments utilize the dwindling resources within their non-BCS climate.
In summary, athletic directors perceive that they are forced to operate with increasing costs and decreasing funding, and they are forced to draw upon university funds. Secondly, strength and conditioning coaches perceive that their programs are understaffed and underpaid, and they desire more resources. Lastly, both athletic directors and strength and conditioning coaches perceived an unfair economic advantage between BCS conferences and non-BSC conferences (such as the MAC).

**Communication**

Functioning organizations, such as the colleges and universities analyzed in this study, rely on communicational elements for the successful operations of their athletic departments in general and their strength and conditioning programs specifically. In fact, perceptions of athletic directors and strength and conditioning coaches alike revealed the importance of fully and clearly communicating directives and objectives that exist throughout the athletic department. Whereas athletic directors see the scope of communication at a macro level that includes internal constituents within the department and external constituents outside the department, strength and conditioning coaches see the scope of communication at a micro level and must communicate effectively throughout the athletic department. However, from both a macro and micro perspective, both sets of participants identified that in order for their departments and/or programs to remain successful, objectives must be properly disseminated and relayed to all constituents involved with athletic departments and strength and conditioning programs.

From a bureaucratic perspective, Weber (1947) distinguished some defining characteristics that accurately describe the communicational elements of those who participated in this study. One characteristic includes the official obligations of each
member of the organization to be clearly defined through properly communicated definitions of responsibilities. For example, athletic directors must identify and establish official obligations within their own departments and clearly communicate and disclose their expectations to the employees within. However, these findings indicate a problematic perception of strength and conditioning coaches who participated in this study. Strength and conditioning coaches perceived their duties and official obligations to be rather ambiguous; the main goals of a strength and conditioning program are to strengthen and prepare student-athletes’ bodies for peak intercollegiate performance and prevent potential injuries during competition. Strength and conditioning coaches reported that there are many different philosophical ways to accomplish this, and because of the vast numbers of constituents they must communicate with on a daily basis, their specific goals and directives could become confusing. As the findings indicated, strength and conditioning coaches try to communicate these goals and objectives by properly explaining to their respective constituents certain applicational theories in exercise science, such as the sliding filament theory, the progressive overload theory, and the general adaptation syndrome. These theories were mentioned in the literature and supported by a variety of researchers (Conroy & Earle, 2000; Mannie, 2011; Mentzer, 2003; Riley, 1982; Seyle, 1978). However, the findings illustrated that communication between all constituents can still be confusing.

Birnbaum (1988) characterized this type of communication that happens in athletic departments, as a dualism of controls. This means that within lines of communication, it is entirely possible to have different perspectives about how to achieve ambiguous goals, and this causes ambivalence and confusion. Athletic directors reported
that they must complete a variety of various tasks, including communicating directives within and outside of their departments. The number of athletic department employees and the possible communiqués athletic directors must engage in within their own department alone can reach approximately 350 to 450 for one athletic department. Although, strength and conditioning coaches are important, as all athletic directors who participated in this study reported, they are one of many programs within departments that, in the MAC, have a large number of employees. Furthermore, athletic directors who participated in this study felt satisfied with the manner in which they communicated with their strength and conditioning coaches. Conversely, strength and conditioning coaches reported that even though it takes up a lot of athletic directors’ time, perhaps they should spend more time communicating with their strength and conditioning coaches. For example, they stated there could be clearer objectives, which could ultimately eradicate some of the ambivalence and confusion that educational organizations characteristically have.

Communicational elements were identified by the participants for this study as very significant and important to the successful operations of athletic departments and the strength and conditioning programs they contain. However, Weber (1947) has pointed out that for organizational purposes, bureaucracies must have properly communicated objectives that are disseminated throughout. He also added that these objectives must come from the top. In athletic departments, it is the head athletic director who communicates his or her objectives, which reflects a management style with a top-down philosophy. Birnbaum (1988) astutely observed that when bureaucracies grow, it becomes more problematic to communicate and disseminate objectives. This implies that
communication lines can be muddled as bureaucratic organizational charts grow and increase. Such is the case in the findings of this study in which strength and conditioning coaches reported that they wish to have more communication with their head athletic directors in order to help erase some of the ambiguous and ambivalent objectives that athletic directors have for strength and conditioning programs.

Projected 10-Year Trends/Leadership

Athletic directors and strength and conditioning coaches in the MAC perceive intercollegiate athletics departments and strength and conditioning programs to have entered a time of growth, exposure, and conflict based on an ever-changing financial climate. They revealed that their respective universities have been forced to adapt by exercising financial restraint and budgetary cuts. The participants admittedly perceived these conflicts to be related to change, growth, and adaptation--all of which have made it more difficult to predict possible 10-year trends. For example, athletic directors who participated in this study felt that because of recent and hasty conference realignment, both the competitive and financial landscape could drastically change between BCS conferences and the MAC conference, meaning that the BCS conferences could make more profits and utilize more resources to assist with annual budgets. Additionally, participants reported some of the Bowl Championship Series (BCS) conferences have been drastically realigning their conference memberships to create more financial distance between themselves and other non-BCS schools. An example of financial distance reported by one athletic director was the additional resources, e.g., television, marketing, and licensing revenue, earned by BCS conferences that the MAC conference does not get or cannot compete with.
Additionally, only 14 out of 120 NCAA Division I schools sustained themselves and also made a profit for their respective school. As suspected, no MAC school was included in the group of 14 self-sustaining universities, but of the 14 schools that made a profit, all belonged to a major BCS conference. One athletic director felt that intercollegiate competition between the MAC teams and BCS teams could be further skewed by the unfair competitive and financial edge they hold and which creates distance and disparity in available resources through television contracts, attractive marketing and licensing projects, and ultimately more donations and ticket sales. Further distance could be possible in the next 10 years as colleges and universities within the MAC attempt to remain competitive with teams that earn revenue. While all MAC teams are sustained by their respective universities, student-athletes could find even more value than they already do in attending schools within the BCS conferences rather than the MAC schools. This could cause a bigger competitive imbalance than what currently exists. In addition to these financial issues, all participants for this study explained that MAC athletic programs are further complicated by financial cutbacks, causing some athletic departments to make what one athletic director called “tough decisions.” These tough decisions that athletic director gave as examples include the elimination of certain positions and various programs. Weber (1973) identified the successful organization in American higher education as one that ultimately competes with other universities for resources and financial gains. Clearly, conference realignment illustrates the competition for both resources and financial gains, which, according to the athletic directors who participated in this study, are shrinking because of economic demands placed on their respective universities. As MAC athletic departments feel the economic squeeze upon
their annual budgets, it will be interesting to see how these schools will be organized 10 years from now.

According to participants of this study, the changing climate could also affect strength and conditioning programs in a positive manner. Both athletic directors and strength and conditioning coaches stated that they see tremendous potential for strength and conditioning programs in the next 10 years. For example, athletic directors predicted that they foresee potential staff additions, while strength and conditioning coaches predicted more administrative duties. Further, both sets of participants view strength and conditioning programs following the lead of The Ohio State University by placing the strength and conditioning coaches, athletic trainers, sports psychologists, sports nutritionists, and equipment managers under the organizational umbrella of “sports performance.” According to participants, this area of sports performance will be led by an administrator called an assistant athletic director, which the participants believe will be the head strength and conditioning coach. All student-athletes will utilize the sports performance programs. If the Ohio State model of sports performance is followed by MAC universities, it could similarly compare to Weber’s bureaucratic identification of promotions because the structural model allows employees to receive promotions based on achievements and/or seniority. In this case, strength and conditioning coaches could be promoted to assistant athletic director, whereas previously, they could only be promoted to head strength and conditioning coach.

The infusion of sports performance programs adds one more level of complexity to the intercollegiate climate: What will head athletic directors do when head strength and conditioning coaches are tied to a revenue program, such as football and/or men’s
basketball? Participants reported that some head sport coaches in revenue sports view their strength and conditioning coach as a member of their staff. As a result, when head sport coaches are hired or fired, both the head athletic director and the head strength and conditioning coach are left in a precarious situation. When this situation occurs, the following question often arises: Does the head strength and conditioning coach remain employed, or is he or she fired? And what if that strength and conditioning coach is an assistant athletic director? Concerning this degree of complexity, one athletic director characterized it this way: “Who is calling the shots--the head athletic director of the head sport coach?”

It is important to also mention that all varsity sports (revenue and non-revenue) utilize strength and conditioning programs. Strength and conditioning coaches have mentioned how important all programs are and that it is important to be successful and achieve goals in all sport programs. These sport programs could be successful and achieve their strength and conditioning goals while the revenue sports could be unsuccessful for one reason or another. If head strength and conditioning coaches are tied to revenue-based sports, and the revenue sports are not successful, it is likely that that strength coach (who could be highly successful training non-revenue sports) could be dismissed.

Weber (1947) suggested that growing bureaucracies must assume increasingly specialized structural models, which in the current intercollegiate landscape reflects growth and exposure within a highly competitive environment. MAC financial budgets grow increasingly larger every year, yet their respective higher education institutions face the economic realities of financial cutbacks. Will the trend be to keep up with the BCS
competition, or will MAC universities have to draw a fiscal line in the competitive sand and establish limitations? Sadly, most participants in this study had no answer for this perplexing problem in intercollegiate athletics.

Additionally, Birnbaum mentioned the issue of dualism of controls, which could prove to be problematic in the next 10 years for athletic departments and strength and conditioning programs. For example, take the Ohio State University (OSU) model for sports performance mentioned above. Birnbaum stated (1988) that when additional responsibilities within bureaucratic organizations are granted, it could create disorganization and confusion. If the athletic director at OSU were required either to hire or dismiss a head sport coach for either men’s football or men’s basketball (the revenue sports, whereas that head sport coach perceives his strength and conditioning coach to be on his staff), then a question arises about the future of the head strength and conditioning coach (who may also be an assistant athletic director). That also raises yet another question regarding who will make that organizational decision. If the head sport coach makes the call, then the issue becomes how long athletic directors will support the promotions of head strength and conditioning coaches to also hold the position of an assistant athletic director. The next 10 years could be an interesting time period for the strength and conditioning profession. On one hand, strength and conditioning coaches could earn promotions (in both job status and an increase of pay), but on the other hand, if they allow themselves to be aligned with head sport coaches and let themselves be perceived as individual members on their staff, this could put athletic directors in the tricky situation described above.
Recommendations for Practice

Based upon the perceptions of athletic directors and strength and conditioning coaches, this researcher identified five recommendations for practice related to mission statements, organizational infrastructure, resources, communication, and projected trends. First, there are recommendations related to mission statements, which are mission statement development for all MAC athletic departments and their strength and conditioning programs, complete collaboration to ensure alignment with their respective MAC universities mission statement, and to involve many constituents from within and outside the department to participate in mission statement development.

Secondly, the findings illustrate that the current organizational infrastructure of strength and conditioning programs in the MAC are severely understaffed, and it is recommended that athletic directors add staff members to these programs in order to assure more organizational supervision and more hands-on (or personal) training for the student-athletes. Further, many athletic directors cited other budgetary demands that are important to address and that could impede upon adding more staff to their strength and conditioning programs. If they cannot add staff to strength programs, then it is recommended that athletic directors demand to have their sport coaches seek strength and conditioning certifications from well-respected organizations in exercise science in order to aid and assist the strength and conditioning coach. Also, athletic directors will need to seek NCAA approval so that strength and conditioning coaches and the sport coaches can spend additional time training their respective student-athletes.

Third, according to the findings, athletic directors and strength and conditioning coaches both perceived resources to be a critical issue they face daily. The
recommendations for athletic directors include realistically working towards a compromise with university financial constituents who ultimately approve athletic department budgets. Athletic directors are recommended to justify departmental requests for resources based on empirical data, such as student-athlete graduation rates, number of conference championships, and previous fiscal and budgetary responsibility. These recommendations for athletic directors can be easily evaluated by financial constituents.

Because of stiff competition between programs within athletic departments, strength and conditioning coaches are recommended to justify their programs with empirical data, such as number of league championships as well as weekly, monthly, yearly, and start-to-finish statistical information reflecting progress in sport-specific strength and conditioning programs. This information should be disseminated to head sport coaches, assistant sport coaches, administrative officials involved with the sports, and also to head athletic directors. It is further recommended that athletic directors provide additional resources to their strength and conditioning programs, such as performance-based salary raises and multi-year contracts. Providing these resources shows more support for strength and conditioning programs.

It is also recommended that athletic directors should mimic some of the philosophical methods that for-profit health and fitness businesses use in order to have their own strength and conditioning programs turn some profit for their departments. They could achieve this by selling memberships for hours when their facilities are not being used by student-athletes. These memberships should also include training programs and tips, nutritional information, very basic principles in exercise science, and how-to videos.
Additionally, since resources have been determined to be a very critical issue for both athletic directors and strength and conditioning coaches, it is recommended that athletic departments make their budgetary allotments to their strength and conditioning programs more translucent, as it pertains to the facility operations, staffing operations, equipment purchases, and general upkeep. Since the findings of this study illustrate a definite and present arm’s race between athletic departments in the MAC, those financial constituents for each respective MAC university that are either involved directly and indirectly should be informed about the programmatic breakdowns of strength and conditioning program budgets.

Fourth, the findings indicate that communication is essential to a successful athletic department and strength and conditioning program. The findings also illustrate that although athletic directors are pleased with their communication skills with their strength and conditioning coaches, their coaches wish to have more communication with their athletic directors. Therefore, it is recommended that athletic directors make more time to communicate clearly with their strength and conditioning coaches in order to more fully address their needs.

It is also recommended that because of the vast numbers of constituents that strength and conditioning coaches meet with on a daily, weekly, and monthly basis, any undergraduate students looking to get into the field should not only earn degrees in physiology and/or exercise science, but also attain minors in communication. Therefore, strength and conditioning coaches can properly become strength and conditioning professionals who also have the technical training to communicate throughout the department.
Lastly, it is highly recommended that strength and conditioning coaches not link or tie themselves into members associated with staff members of other sport coaches. For example, when an athletic director has to let go and/or hire new staff members for sports within the department, if the strength coach is considered to be a member of the staff, then he or she could be without a job. Also, strength and conditioning coaches should stand alone in their respective athletic departments in the MAC because they usually have to train student-athletes in multiple sports as a result of problematic staffing issues.

These recommendations are aimed at those constituents in higher education who are both directly and indirectly involved with athletic departments in general and strength and conditioning programs specifically in order to advance knowledge and practice within these departments and their respective programs. These recommendations are fully examined bellow in relation to the recommendations directly above and also their relation to theory, thus making the case that this author’s recommendations stand alone, but can also be related to theoretical applications in the literature.

Mission Statements

When intercollegiate organizations grow and receive increased exposure, they naturally develop more specialized segments within the hierarchical structure of the organization. The majority of athletic departments in the MAC have developed a mission statement (9 out of 12), while a minority of strength and conditioning programs in the MAC have developed mission statements (3 out of 12). The current higher educational landscape has been one in which athletic departments have increased their budgets and their financial exposure in the MAC. Because of increased growth and exposure, one recommendation is that all athletic departments and all strength and conditioning
programs develop collaborative mission statements in order to increase specialized clarity among constituents involved directly and indirectly both with athletic departments and strength and conditioning programs. Collaboratively developing mission statements will ally universities, athletic departments, and strength and conditioning programs with a confederation of goals that are individually focused, yet coexist with each other, in order to add clarity throughout the many organizational lines of MAC athletic departments.

According to the participants of this study, today’s athletic departments in the MAC are very ordered, structured, and organized to meet the everyday business needs of that functioning department. Strength and conditioning programs address the physical demands placed on intercollegiate competition, and, according to the participants of this study, these programs play a critical role in the athletic careers of almost all student-athletes. So, these mission statements need to align with and fully comply with their respective parent university mission statements, and this alignment could be achieved through a collaborative effort among constituents involved (both directly and indirectly) with athletic departments and strength and conditioning programs.

Further, a collaborative effort in developing specialized mission statements for strength and conditioning programs will help to reduce or eliminate any ambivalence or confusion among constituents in higher education seeking to understand the specialized characteristics and goals of either the department and/or the program. Special attention is recommended to the collaborative construction of each mission statement, or else mission statements could cause confusion and ambivalence. One of the athletic directors who participated in this study claimed that his athletic department’s mission statement development involved such collaborative constituents as athletic department
administrators, head sport coaches, student-athletes, donors, alumni, and finally campus administrators not directly involved with intercollegiate athletics. This athletic director reported that that intellectual collaborative experience helped him to form a successful athletic department mission statement that was correctly aligned with the university’s mission statement, yet it helped to further specialize the department’s distinct and precise goals. This process is recommended to be used by all MAC universities for all of their athletic programs, in order to add clarity to the athletic departments in general (and not just strength and conditioning programs).

Organizational Infrastructure

According to the findings of this study, athletic directors in the MAC recently have found themselves in a difficult financial position as they attempt both to increase their annual budgets because of rising costs and also make additional cuts based upon economical demands. In addition to this problematic issue, their strength and conditioning programs have experienced organizational staffing issues that need to be addressed. Several of the strength and conditioning coaches who participated in this study claimed that their programs are understaffed, which potentially can result in safety and supervision issues with student-athletes and also causes the strength coach to extend his or her work schedule well past 60 hours per week. Because of safety and legal implications (a student-athlete could get severely hurt in a weight room without adequate and proper supervision), it is recommended that head athletic directors staff their strength and conditioning programs accordingly. Adding strength and conditioning coaches to help train all the intercollegiate sports teams that need to be trained can accomplish this goal. Even though athletic directors have to be fiscally responsible, it recommended that
they put the safety of their student-athletes first and make sure their strength and conditioning programs are properly staffed.

Athletic directors who participated in this study expressed that they desire to help their strength and conditioning coaches but cited budgetary demands as a reason that prevents them from addressing this problematic issue. Biggart (2002) wrote, “As a rule, the economic system was absorbed in the social system, and whatever principle of behavior predominated the economy, the presence of the market pattern was found to be compatible with it.” (p. 21). Within the MAC, it has become the accepted behavior to extend the work schedule of the strength and conditioning coaches to train all varsity student-athletes. It is recommended here that athletic directors firmly place the health and safety of their student-athletes above any fiscal and economic restraints and properly staff their strength and conditioning programs. From an organizational and philosophical perspective, it is recommended that athletic directors in the MAC make the strength and conditioning programs a priority because as all athletic directors who participated in this study claimed, their strength and conditioning programs play a crucial role in the operations of their department. If these recommendations are followed, then, as Biggart (2002) has claimed, strength and conditioning programs have become an accepted priority, regardless of economical demands, and thus must be adequately staffed in the MAC across the board.

Collectively, these recommendations make sense from a social, philosophical, and theoretical perspective, but whether these recommendations make fiscal sense can be determined only by deciding whether athletic directors can afford to add staff members to their strength and conditioning programs while also making difficult reductions in their
annual budgets. The practical issue of increasing staff in one program while reducing or eliminating staff from another program understandably may not sit well with athletic directors who are expected to be fiscally compliant with their college presidents and boards of trustees. Because the health and safety issues of all student-athletes is an overriding factor in this discussion, it is recommended that athletic directors require their head and/or assistant sport coaches to first earn certifications in exercise science and, upon completion, ultimately assist the head strength and conditioning coach in training the student-athletes in the sports that they coach. This would provide the head strength and conditioning coach and his or her assistants with additional resources to address safety issues and prevent accidents and injuries, while athletic directors would not have to add more expenses to their annual budget by creating another position for their strength and conditioning programs. Also, athletic directors and strength and conditioning coaches could be more at ease because increasing the number of assistants in the weight room could also increase the expertise and individualized focus on the student-athletes as well. This recommendation is practical and logical in the sense that head and assistant sport coaches often attend workouts for their individual sports. Instead of watching the strength and conditioning coaches, they could assist with the training. Lastly, it is assumed that the NCAA would have to adjust the allotted time that coaches are allowed to spend with their student-athletes, given the fact that coaches can provide evidence of certifications, and that athletic directors can guarantee that the extra allotted time for sport coaches to spend with their student-athletes is spent in the weight room performing strength and conditioning activities.
Another problematic organizational issue exists with certification demands. As the findings of this study indicate, athletic directors require their strength and conditioning coaches to be certified through accredited strength and conditioning associations, such as the National Strength and Conditioning Association and the Collegiate Strength and Conditioning Association. Athletic directors explained that these certifications help to ensure that their strength and conditioning program will be safely and professionally organized through principles of exercise science, which are to be applied throughout the program to all student-athletes.

Strength and conditioning coaches who participated in this study recognized the value of being certified through nationally accredited associations, which helps to ensure employers that their strength and conditioning programs will be properly organized and safely instituted among all student-athletes. However, one strength and conditioning coach reported that he believes the certification demands for strength and conditioning coaches would be ineffective if certification demands are placed only on strength and conditioning coaches and not also on the head coaches of other sports. He stated that if strength and conditioning coaches must be certified for their profession, then it would make practical sense for head sport coaches and assistant sport coaches to obtain certification for their individual sports. Based on the same justifications athletic directors have provided for requiring a safe and productive strength and conditioning program, it is recommended that all head sport coaches in the MAC seek similar types of certifications to help ensure safety and health for all student-athletes in all varsity sports that are played in intercollegiate athletics. Athletic directors in the MAC should understand the value
that certifications provide to their strength and conditioning programs and demand the same integrity among all sporting programs.

It is further recommended that athletic directors and strength and conditioning coaches use their influence to suggest that all head and assistant sport coaches complete an appropriate certification process. Biggart (2002) recognized this recommended demand for action as the legal order in which parties, or “specific spheres of influence or power” (p. 34) take party-oriented social action that involves further pursuit of goals. The current intercollegiate landscape in the MAC involves a certified group of strength and conditioning coaches supported by their athletic directors who together work to achieve the safe and productive goals of strengthening and conditioning all student-athletes for intercollegiate competition. It is recommended here that athletic directors and strength and conditioning coaches both use their social sphere of influence to demand the same ethical and moral standards that they demand of strength and conditioning coaches. This also helps increase fairness and integrity throughout the whole athletic department.

In summary, athletic departments currently face issues related to their organizational infrastructure. Implementing the recommendations related to the organizational infrastructure issues faced by athletic departments, which include staffing strength and conditioning programs to meet the health and safety needs of student-athletes, could help to eradicate potential injuries in the future. The recommendations requiring coaches to obtain additional certifications (both in exercise science and their specific intercollegiate sport) could also give confidence to the athletic directors from a legal standpoint and also reduce expenses by eliminating the need to create additional staff positions within strength and conditioning programs. Understandably, these
recommendations could require additional effort and place stress both on head sport coaches and assistant sport coaches, but if strength and conditioning programs are as important as the participants in this study indicated, then it makes sense to demand integrity among all intercollegiate sports based on the principle that the health, well-being, and safety of the student-athletes should never be compromised.

**Resources**

Intercollegiate athletic departments in higher education are often subject to competition for resources, and that is especially true in the current economic climate within the MAC. Resources were overwhelmingly one of the most frequently mentioned issues by participants who were interviewed for this study. Athletic directors and strength and conditioning coaches both indicated that they justify their requests for resources by illustrating program purpose, worth, and value to those administrative constituents who ultimately distribute the resources. Athletic directors and strength and conditioning coaches must find ways to justify their departments/programs to the necessary financial constituents.

Athletic directors reported problematic issues of decreasing budgets caused by increasing departmental costs. At the same time, athletic directors have been expected to produce financially responsible budgets on an annual basis. Put plainly, in MAC universities, athletic department budgets are increasing while departmental cuts are being made throughout all departments at their respective universities (not just athletic departments). The challenge rests upon the shoulders of the head athletic directors to justify their respective budgets while also providing reassurance to financial constituents who work for the university that there are very rational reasons for current budgetary
demands. All athletic directors interviewed for this study reported that this challenge has been a difficult task.

One athletic director who participated in this study reported one way to help justify the annual budgetary requests, and that approach is recommended here. This athletic director mentioned that a realistic approach is necessary in which the athletic director must understand the economic demands placed on the university as a whole. By looking at a budget realistically, it could be easier to make tough decisions concerning athletic department budgets. This approach helps to show university constituents that the athletic director is willing to compromise his or her annual budget to help stay within the overall university budget, as opposed to making brash demands and being unwilling to compromise. This athletic director also reported that taking a compromising posture with the financial constituents of the university helps to build upon these relationships in a positive manner. Put simply, it is easier to prepare financial budgets when a realistic approach is taken rather than an unrealistic approach that is not based on compromise. This realistic approach also helps to create and maintain a more cordial working relationship between athletic directors and the financial constituents of universities--one that is based on realistic compromise and through which financial dealings about resources are executed on a middle ground.

Establishing positive relationships with financial constituents opens the door to justify the department requests for resources, whereas athletic directors can illustrate the value through empirical data such as student-athlete graduation rates, conference championship teams, and previous fiscal and budgetary responsibility. Athletic directors who participated in this study indicated that successful athletic departments are based off
of these valuable attributes, which can be easily measured through an analytical lens. Furthermore, when athletic directors can illustrate these attributes, it could be much easier to justify to financial constituents within their respective universities that the desired resources should be granted. Such justification is necessary in the highly competitive nature of departments for these resources for universities in higher education.

At the program level within the athletic department, the findings of this study showed that there also exists a competition for funds and resources between programs throughout the department. Athletic directors and strength and conditioning coaches both confirmed that interdepartmental competition for resources exists, yet they also clearly stated that the budgetary appropriations rest on the administrative shoulders of the athletic director. Much like athletic directors who must justify their departments’ existence to financial constituents, strength and conditioning coaches must also justify their requests for resources within this competitive department by illustrating program purpose and worth to administrators from within the athletic department.

Strength and conditioning coaches who participated in this study indicated one problematic issue related to the desire for more resources. Strength and conditioning coaches believe that they are understaffed and underpaid, which simply means they believe that they are overworked and underappreciated. It is recommended that athletic directors clearly understand how much influence strength and conditioning programs have throughout the department and how many student-athletes utilize it to their advantage.

There are two ways that athletic directors can address the concerns of strength and conditioning coaches in the MAC and how the scarcity of resources has affected their
programs. These recommendations were suggested by two strength and conditioning coaches who participated in this study and concern contractual agreements. One strength and conditioning coach recommended that athletic directors apply performance-based raises in the contracts. For example, winning a league championship can help to determine whether strength and conditioning coaches receive additional compensation. This coach reported that this type of arrangement has been established for other head sport coaches in the MAC and believed that this compensation structure could provide additional support for what strength and conditioning coaches do each year and the influence they can have.

Another strength and conditioning coach who participated in this study provided an additional recommendation indicating how athletic directors can show support for the value of strength and conditioning programs: signing their strength and conditioning coaches to multi-year contracts instead of annual contracts. This coach mentioned that signing their strength and conditioning coaches to multi-year contracts could show the coaches more commitment from administrative staff. This also could show strength and conditioning coaches that their administrative staff members are committed to more long-term success with a successful strength and conditioning program.

Moving forward with these recommendations assumes a vast amount of support and trust from the head athletic directors, but it also places more pressure on the head strength and conditioning coaches, who must be able to illustrate concrete evidence that their program is producing strength and conditioning gains for all varsity student-athletes. It is recommended here that all strength and conditioning coaches in the MAC formulate scientific and physiological methods that are produced to help eliminate ambiguous
claims that each program is valuable enough to invest more resources in it. It is recommended that these strength and conditioning coaches accomplish this task by preparing and delivering physical reports on a weekly basis to all head sport coaches and administrators directly involved with the supervision of strength and conditioning programs. These reports to other head sport coaches should contain documentation of strength and conditioning gains for each student-athlete and should also contain extensive notes related to any injuries or any other necessary aspects that could complicate a productive workout session. Furthermore, statistics over a four- to five-year period should be able to illustrate the gains that each student-athlete was able to produce from the beginning of their intercollegiate career to the very end of it. These statistics should show team averages, so both the head sport coach and the administrator can see physical documentation of strength and conditioning gains. Being able to provide this information shows a form of accountability and further justifies the positive contributions of strength and conditioning programs within their respective MAC athletic departments. This could also help to justify the contractual recommendations made above.

Athletic directors should also address the needs of strength and conditioning coaches by adding staff to strength and conditioning programs. As one strength and conditioning coach reported, there are nine assistant coaches for one football team which consists of approximately 100 varsity football players, but there are only three strength coaches who are expected to train around 350-400 varsity student-athletes at his respective university. These staffing levels/ratios are fairly consistent among all universities in the MAC, and it forces strength and conditioning coaches to extend the hours of operation during which they are expected to provide a positive and safe training
experience for all student-athletes. Even though athletic directors are forced to make cuts, they should realize that many of their strength and conditioning coaches within the MAC are working in excess of 60 hours per week—a work schedule that many strength and conditioning coaches who participated in this study perceived to be a taxing experience and one that potentially jeopardizes student safety. Issues related to such an important commodity within the athletic department (i.e., strength and conditioning coaches) should be addressed.

It is also recommended that athletic directors should look at possible ways in which their strength and conditioning programs could earn profits for their respective athletic departments. Much in the way that health and fitness facilities operate for profit, it is recommended here that strength and conditioning programs sell memberships for after-hours usage. Strength and conditioning coaches who participated in this study indicated that their hours of operation usually start around 5 a.m. and proceed up until 4 p.m. to 5 p.m. This leaves a 5 p.m. to 10 p.m. time period during which members could use the workout facilities. Members should be legally bound through contractual agreement to the university, and membership should be restricted to those who work at the university and to those who work within the athletic department. The weight room facility would need to be staffed, but in order to earn profit, it is recommended that the weight room be staffed lightly. Athletic directors could also take note of for-profit health and fitness facilities, as they sell strength and conditioning information to online audiences, such as interested alumni, potential donors, members of the community, and fans scattered throughout the United States. The demographic data sold could result in members receiving information about training programs, training tips, and selected
physiological information. In this manner, strength and conditioning programs could earn profits for their athletic departments.

Furthermore, head sport coaches from other intercollegiate sports in MAC athletic departments, should show support for their strength and conditioning programs and understand that strength and conditioning coaches perceive themselves to be understaffed and underpaid. This support can clearly be provided by not trying to compete with strength and conditioning programs for resources. Oftentimes, head sport coaches are very quick to utilize every facet of their strength and conditioning programs in order to help their teams advance in intercollegiate competition, but as athletic directors reported in this study, all programs are competing for financial funds. Head sport coaches should understand the landscape MAC strength and conditioning coaches are in, and rather than compete with strength and conditioning programs for funds, they should support the strength and conditioning programs that they utilize on a regular basis. Because it is used by all intercollegiate sports, strength and conditioning programs should not compete for resources, nor should head sport coaches try to compete with strength and conditioning programs for resources. Rather, there should be a unilateral show of support that relates to resources within strength and conditioning programs because all intercollegiate sports in the athletic departments utilize the strength and conditioning programs.

**Communication**

In higher education, effective bureaucracies are often those that are operated by administrators who can properly disseminate their directives using a top-down format (as Weber originally suggested in 1947)--i.e., the directives start out at the top and successively filter downward throughout the whole department. Weber (1999) also
indicated that successful bureaucracies could face strong limitations when the “directing mind” or the “moving spirit” of the legal head of the bureaucracy make troubling or fatal decisions, ultimately causing faulty directives or mandates to pass from the top down in the same format. For this explicit reason, one distinguishing factor of Weber’s (1947) rational and legal bureaucratic structure model requires that “candidates are to be selected on the basis of technical qualifications. In the most rational case, this is tested by examination or guaranteed by diplomas certifying technical training, or both” (p. 333).

Within this study, athletic directors and strength and conditioning coaches both reported how critical good communication skills are to the operations of athletic departments and strength and conditioning programs, yet neither group indicated that a college degree in communications is critical in order to be good communicators within their respective departments. Rather, they stated that degrees in related fields, such as business (for athletic directors) and exercise science (for strength and conditioning coaches), are the necessary educational requirements. As a result, it is recommended here that any potential students who wish to get involved with athletic departments through employment opportunities take some communication classes as either a minor course of study or that they double major in communications.

As all participants for this study reported, athletic directors and strength and conditioning coaches must be able to effectively communicate and convey directives throughout their athletic departments, and that is absolutely crucial in establishing and maintaining successful operations. Just as potential students prepare for their vocational and financial futures through academic work, some communication courses could help students entering the vocation of collegiate athletics. Weber (1947) and Birnbaum (1988)
both have recognized communication as essential to facilitating the operations of a functioning bureaucracy. Because intercollegiate athletics departments use a top-down governance model, it is assumed that effective communicators can help communicate department and program directives throughout the department.

**Projected 10-Year Trends**

Experts in their respective fields, such as strength and conditioning coaches as well as athletic directors who preside over the entire athletic department, spend vast amounts of time and energy within their respective areas of their bureaucratic organizations. As a result of this experience, although it is impossible to be precise and exact when trying to determine future trends within concentrated areas of a bureaucracy, it is reasonable to identify various developments that these experts (athletic directors and strength and conditioning coaches) anticipate or envision strength and conditioning programs to experience in the next 10 years.

If the predictions about participants are accurate and strength and conditioning programs accumulate more exposure through publicity, promotions, and financial gains by following the Ohio State model, then it is highly recommended that strength and conditioning coaches not be linked with staff members associated with revenue sports teams on the organizational chart. Put simply, the participants in this study indicated that in NCAA Division I athletic departments, many head sport coaches of revenue sports, such as football and men’s basketball, perceive their strength and conditioning coach to be a member of their individual staff rather than a resource utilized by all intercollegiate sports, regardless of earned revenue or expenses. As mentioned in previous sections, the Ohio State model shows a head strength and conditioning coach as an assistant athletic
director who has an increased amount of administrative duties as he oversees a multitude of programs that fit under the umbrella of “sports performance.” These programs include strength and conditioning, sports medicine, equipment, nutrition, and sports psychology. This means the heads of these programs report to the head strength and conditioning coach, and if strength and conditioning coaches become assistant athletic directors while they are also viewed as assistants on head sport coaches for revenue sports such as football and men’s basketball, then this could create problematic administrative issues within bureaucratic lines of authority, especially as head sport coaches are hired and fired. This places the head athletic director in a precarious position because many times when a head sport coach is hired or fired, there is a complete staff turnover in which hired or fired head sport coaches will bring with them their most trusted staff members.

This precarious position leads to a problematic issue: Who will make the decision about whether the head strength and conditioning coach (who is also the assistant athletic director of sports performance) is dismissed or retained--the head athletic director or the head strength and sport coach? This researcher highly recommends that this precarious position be avoided at all costs by establishing in the head strength and conditioning coach’s contract clear and legal language that both defines a proper system of promotions (such as the Ohio State model in which the head strength and conditioning coach is also the assistant athletic director of sports performance), and a directly stipulated provision in which the strength and conditioning coach is not an assistant coach on any head sport coach’s staff. Rather, strength and conditioning coaches should be recognized by all head sport coaches on all sport teams as a stand-alone utility in the service of all intercollegiate varsity sports (similar to the role of athletic department medical programs or the
academic services programs). In this way, strength and conditioning coaches could acquire increased job security and stability, and their employment could be based on more than the win/loss record of revenue-generating sport teams.

**Recommendations for Future Study**

Although this study elicited some insightful perceptions both from athletic directors and strength and conditioning coaches in the MAC, there are five recommendations that could prove helpful for future researchers in the field of intercollegiate athletics. These recommendations include improving methods, procedures, and specialized focus within certain areas. Additionally, this section concludes with a short section about what the researcher learned while performing this study. First, time constraints were a critical factor for this qualitative study. For example, the athletic directors and the strength and conditioning coaches who participated in this study revealed that most of their days are spent with busy tasks. In fact, three of the athletic directors and two strength and conditioning coaches identified a very specific amount of time they could provide for their respective interviews and a very explicit and narrow time frame in which the interviews were to be conducted. Although the information they offered revealed in a variety of thematic points of interest, the researcher recommends that more time be spent observing and interviewing the participants within their environment. In addition to more time spent with participants, future researchers should also request individual budgetary breakdowns of strength and conditioning programs. This could help add even more texture to the qualitative data collected through the interview process, because as the findings show, resources and time spent on the
campuses of strength and conditioning programs helps to further corroborate the importance and existence of these programs.

Secondly, university organizations in higher education include many different departments and many different programs. This study focused on the perceptions about an area that has not been previously investigated: strength and conditioning programs. Using a theoretical framework that centers on Weber and Birnbaum’s ideas about bureaucratic functioning, future researchers could very easily use these same semi-structured interview questions to analyze other programs within intercollegiate athletics departments, such as men’s and women’s sports, student services, business, compliance, development, equipment, facilities, marketing, media relations, sports medicine, ticket sales, licensing, etc. Using a semi-structured interview format, future researchers could simply review the organizational charts of every athletic department (omitting titles and names) to identify any structural differences. For example, future researchers could investigate how these programs organizationally fit within the athletic department, what specific functions they serve, how the programs are administered and by whom, and how the qualitative perceptions garnered might contribute to higher education. It is also recommended here that future researchers keep the focus on strength and conditioning programs and simply explore additional perspectives through the same qualitative inquiry process but with a focus on other programs in athletic departments. It could be valuable to gather information from these other programs and analyze the interactive relationships between other programs and strength and conditioning programs. It could also be valuable to compare the importance of strength and conditioning programs with other programs in terms of perceived value and program-to-program usage. For example,
future researchers could examine the perceptions of sports medicine employees, facility managers, and compliance officers, who are all within the intercollegiate department. Additionally, the intercollegiate sports staff members who work on a daily basis with strength and conditioning programs could yield qualitative data that this study did not. For example, future researchers could interview head sport coaches, assistant sport coaches, sport directors, and even student-athletes. The opportunity to interview these constituents on a more in-depth bases could provide a breadth of knowledge to constituents involved directly and indirectly. Qualitative studies such as this could offer practical information that these constituents could apply to their strength and conditioning programs.

Third, this researcher’s recommendation for future research is to investigate other conferences besides the MAC. Researchers could use the same qualitative methods and procedures used in this study but simply choose to explore the perceptions of athletic directors and strength and conditioning coaches from conferences other than the MAC. For example, researchers might choose to analyze participants from conferences that belong to the BCS rather than conferences that do not (such as the MAC conference). Perceptions of participants could be drastically different in universities that are in BCS conferences where more resources are evenly spread throughout conference members. BCS conferences also have reported higher ticket sales, higher sales for licensing products, bigger strength and conditioning facilities, and overall higher budgetary appropriations. Future researchers could find some very different data and perceptions in other conferences.
From a macro perspective, higher educational universities obviously extend beyond intercollegiate athletics; they include a vast number of departments and programs. A simple modification of the semi-structured interview could be used in which the names of the participants, their departments, and their programs of study are changed could have practical application. For example, future researchers might want to study specific programs in engineering departments, education departments, law departments, medical and medicine departments, nursing departments, pharmacy departments, and many more.

Fourth, the researcher identified two critical factors that revolved around the concept of time as it pertains to this study. First, at times the qualitative processes of this study became very tedious. For example, the researcher decided to transcribe the data and code it manually. Looking back at that tedious phase of this study, it is recommended that any future researchers utilize technological software applications (such as qualitative data analysis software [QDAS]) and/or a transcriptionist to help with these activities. Following these two recommendations could have eliminated this tedious manual coding phase.

Finally, the participants were not easy to contact in order to arrange for a time to conduct the interviews. As noted earlier, athletic directors and strength and conditioning coaches both gave the impression that they are constantly busy while at work, and because of that, they mostly did not reply to the initial emails and phone calls to inquire of their time to perform the interview. In fact, one athletic director scheduled an interview only to cancel it 30 minutes before the scheduled time because a head sport coach had been let go that day, and that athletic director needed to work on a statement to the public. In other cases, student-athletes constantly knocked on their strength and
conditioning coach’s front door while the interviews were being conducted. A couple of times the coaches would wave them away, and other times they just nodded their heads as if to say, “Not now.” Here it is recommended that anyone looking to perform further research on these participants should understand that athletic directors and strength and conditioning coaches usually are very busy while at work. By understanding the time-constraints that might hinder the interview time, it might be easier for future researchers to prepare for the interviews. For example, they could perform the interview while just following the participant around for a day.

**Conclusion**

An analysis of the perceptions of athletic directors and strength and conditioning coaches resulted in six common themes: (1) perceptions about athletic departments and strength and conditioning programs, (2) mission statements, (3) organizational infrastructure, (4) resources, (5) communication, and (6) projected 10-year trends. First, strength and conditioning programs within the MAC have great value, but some athletic departments clearly valued their strength and conditioning programs with more financial resources than others. Secondly, mission statements are important documents in the daily operations of athletic departments, but the perceptions varied regarding the need for more specialized mission statements. Third, the organizational infrastructure of the MAC athletic departments in general and their strength and conditioning programs in particular focused in on the high levels of expertise and the need to add more staff to the strength and conditioning programs. Fourth, resources were perceived to be the one of the most critical issues by all the participants, especially in light of the rising costs of running athletic departments and the expectations to be fiscally responsible. Fifth, both athletic
directors and strength and conditioning coaches revealed how important communication is to the operations of their department. Sixth, strength and conditioning programs within the MAC have great value, but some athletic departments clearly valued their strength and conditioning programs with more financial resources than others.

This chapter also discussed the interweaving of related bureaucratic theories with athletic departments and strength and conditioning programs. For example, bureaucracies are a common thread within every institution of higher education. As they become more successful, these institutions assume more characteristics aptly described by Weber, Birnbaum, and other organizational theorists. However, in addition to their benefits, bureaucracies also present problematic issues and challenges, which Birnbaum and Weber have described at length. This study attempted to focus in on the previously unexplored bureaucratic areas of intercollegiate athletics and strength and conditioning programs to help analyze the organizational function and structure of these programs. By exploring the qualitative perceptions of stakeholders involved (athletic directors and strength and conditioning coaches), meaningful inferences were drawn in order to help inform those involved directly or indirectly with intercollegiate athletics.

Lastly, recommendations for practice include spending more time on campuses with participants than just the interview time, (2) using the same qualitative inquiry process to identify perceptions held by other constituents from within MAC athletic departments about their strength and conditioning programs, (3) using the same qualitative inquiry process to identify athletic directors’ perceptions about other programs located within their respective MAC athletic departments, and (4) using the same qualitative inquiry process to analyze strength and conditioning programs from
conferences other than the MAC. It is fair to conclude that although this study yielded meaningful inferences, bureaucratic challenges still exist. The challenge, then, is to utilize this information to improve upon strength and conditioning programs at the NCAA division I level.
References


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Frost, R. B. (1971). The director and the staff. In E. S. Steitz (Ed.), *Administration of


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Appendix A

Script for Structured Interview (ADs)

Time of Interview:
Date:
Place:
Interviewee:
Code of Interviewee:
Professional Position of Interviewee:

Greetings.

I would like to take this opportunity to thank you for your contribution to this study. The purpose of this study is to explore perceptions of head athletic directors and head strength and conditioning coaches regarding intercollegiate athletics and strength and conditioning programs at the FBS NCAA Level.

This interview should last approximately 30 minutes to 60 minutes. Once this interview has been completed, the interview will be transcribed and converted to a hard-copy document, and in order to protect confidentiality, it will be kept in a locked cabinet to which only the researcher has the key. Your personal information will not be identified with your responses, and your comments will remain anonymous throughout all stages of this research project, including the dissertation itself.

At this time, I would like to ask you to sign the consent form which has been approved by my dissertation committee and the University of Toledo’s Institutional Review Board. With your permission, I will now begin recording our interview. (Turn on digital recorder and begin interview).
Appendix B

Semi-Structured Interview Questions (ADs)

*Would you describe the organization (or the structure or the function) of your athletic department?
*If I followed you through a typical day, what would I see you doing?
*As an athletic director, what are some of the critical issues that you are facing?
*What are some organizational/bureaucratic challenges that you face as an athletic director?
*What are some important factors that influence how you make decisions about your department?
*What types of communication are prevalent within the athletic department?
*What do you expect from strength and conditioning coaches that you work with?
*Would you describe your strength and conditioning program?
*Would you mind if I contacted you in the future if I have any follow-up questions?
Appendix C

Probing Questions (ADs)

Probing Question 1: What type of support casts help an head athletic director to appoint or terminate a strength and conditioning coach?
Probing Question 2: How do head athletic directors decide if programs within the department are adequately staffed?
Probing Question 3: How do head athletic directors decide when to add or subtract staff from a program?

Dualism of Controls
Probing Question 1: How does revenue get distributed within an athletic department?
Probing Question 2: What do athletic departments do when annual expenses surpass annual revenue?
Probing Question 3: How can a strength and conditioning program produce revenue, and how would the revenue be used?

Clarity and Agreement on Organizational Mission and Management
Probing Question 1: What role do you play in the development of a strength and conditioning program? How does communication affect your role?
Probing Question 2: How does the university’s mission statement influence your interaction within your athletic department?
Probing Question 3: How do policies/rules/regulations dictate disciplinary actions within an athletic department?

Power, Compliance, and Control
Probing Question 1: How do coaches receive financial promotions within your department?
Probing Question 2: How does the structure of your department allow for directives to be achieved?
Probing Question 3: What is the function of your support casts within your department?

Institutional and Organizational Constraints
Probing Question 1: How do institutional and organizational constraints guide policy within your department?
Probing Question 2: How do institutional and organizational constraints guide the annual budget within your department?
Probing Question 3: How do institutional and organizational constraints affect the construction and renovations to current athletic facilities?

Institutional and Environmental Change
Probing Question 1: How do institutional and environmental changes affect your annual budget?
Probing Question 2: What types of institutional and environmental changes affect policy formation within your department?
Probing Question 3: What types of institutional and environmental changes affect organizational staffing within your department?

Decentralization
Probing Question 1: How are policies delegated throughout your department?
Probing Question 2: How does the budget affect policy formation within your department?
Probing Question 3: How do policies affect specialized individuals based on technical qualifications?

Inflexibility of Resources

Probing Question 1: How do the resources play a role in the recruitment of student athletes?
Probing Question 2: How do the resources of facilities play a role in the recruitment of student athletes?
Probing Question 3: How do programs compete with other programs (sub-units) within athletic departments for financial resources?

Confusion at Organizational Levels

Probing Question 1: How do head athletic directors decide what is proper communication with head coaches for program needs?
Probing Question 2: Does the structure of your athletic department provide for different feedback from male and female head coaches? If so, what?
Probing Question 3: How are policies delegated throughout your department?

Problems of Leadership

Probing Question 1: From a leadership perspective, what are positive and negative characteristics of a strength and conditioning program?
Probing Question 2: What are the specific leadership qualities or characteristics that are needed to be a head coach within your department?
Probing Question 3: From a position of leadership, what types of changes do you see happening in athletic department programs in the next 10 years?
Appendix D

Script for Structured Interview (SC Coaches)

Time of Interview:
Date:
Place:
Interviewee:
Code of Interviewee:
Professional Position of Interviewee:

Greetings.

I would like to take this opportunity to thank you for your contribution to this study. The purpose of this study is to explore perceptions of head athletic directors and head strength and conditioning coaches regarding intercollegiate athletics and strength and conditioning programs at the FBS NCAA Level.

This interview should last approximately 30 minutes to 60 minutes. Once this interview has been completed, the interview will be transcribed and converted to a hard-copy document, and in order to protect confidentiality, it will be kept in a locked cabinet to which only the researcher has the key. Your personal information will not be identified with your responses, and your comments will remain anonymous throughout all stages of this research project, including the dissertation itself.

At this time, I would like to ask you to sign the consent form which has been approved by my dissertation committee and the University of Toledo’s Institutional Review Board. With your permission, I will now begin recording our interview. (Turn on digital recorder and begin interview).
Appendix E

Semi-Structured Interview Questions (Coaches)

*Would you describe the organization of your athletic department?
*If I followed you through a typical day, what would I see you doing?
*As a strength and conditioning coach, what are some of the critical issues that you are facing?
*What are some organizational/bureaucratic challenges that you face as strength and conditioning coach?
*What are some important factors that influence how you make decisions about your program/department?
*What types of communication are prevalent within the athletic department?
*What do you expect from athletic directors that you work with?
*Would you mind if I contacted you in the future if I have any follow-up questions?
Appendix F

Probing Questions (SCs)

Governance Structure and Interaction
Probing Question 1: What type of support casts help an head athletic director to appoint or terminate a strength and conditioning coach?
Probing Question 2: How do head strength and conditioning coaches determine if strength and conditioning programs are adequately staffed?
Probing Question 3: How do head strength and conditioning coaches get involved in adding or subtracting staff from a strength and conditioning program?

Dualism of Controls
Probing Question 1: How does revenue get distributed within an athletic department?
Probing Question 2: What do strength and conditioning programs do when annual expenses surpass the annual budgetary appropriations?
Probing Question 3: How can a strength and conditioning program produce revenue, and how would the revenue be used?

Clarity and Agreement on Organizational Mission and Management
Probing Question 1: What role do you play in the development of a strength and conditioning program? How does communication affect your role?
Probing Question 2: How does the university’s mission statement influence your interaction within your athletic department?
Probing Question 3: How do policies/rules/regulations dictate disciplinary actions within an athletic department?

Power, Compliance, and Control
Probing Question 1: How does the structure within your program allow for directives to be achieved?
Probing Question 2: How do policies/rules/regulations dictate disciplinary actions within an athletic department?
Probing Question 3: What type of support casts help an head athletic director to appoint or terminate a strength and conditioning coach?

Institutional and Organizational Constraints
Probing Question 1: How institutional and organizational constraints guide policy within your strength and conditioning program?
Probing Question 2: How do institutional and organizational constraints guide the annual budget within your program?
Probing Question 3: How do institutional and organizational constraints affect the construction and renovations to your strength and conditioning facility?

Institutional and Environmental Change
Probing Question 1: How do institutional and environmental changes affect your annual budget?
Probing Question 2: What types of institutional and environmental changes affect policy formation within your program?
Probing Question 3: What types of institutional and environmental changes affect organizational staffing within your strength and conditioning program?
Decentralization
Probing Question 1: How are policies delegated within your strength and conditioning program?
Probing Question 2: How does the budget affect policy formation within your program?
Probing Question 3: How do policies affect specialized individuals based on technical qualifications in your strength and conditioning program?

Inflexibility of Resources
Probing Question 1: How do the resources of strength and conditioning programs play a role in the recruitment of student athletes?
Probing Question 2: How do the resources of strength and conditioning facilities play a role in the recruitment of student athletes?
Probing Question 3: How do strength and conditioning programs compete with other programs (sub-units) within athletic departments for financial resources?

Confusion at Organizational Levels
Probing Question 1: How do head strength and conditioning coaches properly communicate with head athletic directors for program needs?
Probing Question 2: Does the structure of strength and conditioning programs provide for different feedback from male and female head coaches? If so, what?
Probing Question 3: How are policies delegated within your strength and conditioning program?

Problems of Leadership
Probing Question 1: From a leadership perspective, what are positive and negative characteristics of a strength and conditioning program?
Probing Question 2: What are the specific leadership qualities or characteristics that are needed to be a head strength and conditioning coach?
Probing Question 3: From a position of leadership, what types of changes do you see happening in strength and conditioning programs in the next 10 years?
Appendix G

Participants

Ohio University

MAC Membership: 1946 (Charter Member)

Founded: 1804

University Mission Statement: Ohio University holds as its central purpose the intellectual and personal development of its students. Distinguished by its rich history, diverse campus, international community, and beautiful Appalachian setting, Ohio University is known as well for its outstanding faculty of accomplished teachers whose research and creative activity advance knowledge across many disciplines.

Athletic Department Mission Statement: The mission of Ohio University Athletics is to successfully develop the student-athlete as a person, student and athlete. Athletics also contributes to the university through athletic and academic achievement, generates visibility, promotes institutional pride, enhances campus life and serves as a connection with alumni and fans.

Strength and Conditioning Mission Statement: None

Carnegie Classification: Research Universities (high research activity)

2010 Total Student Population (Graduate + Undergraduate): 21,369

2010 Graduation Rate: 51.0%

2010 Total Cost: $31,341

2010 Percentage of Student Body that is a Varsity Athlete: 2.7%

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Miami University

MAC Membership: 1947

Founded: 1809

Mission Statement: Miami University, a student-centered public university founded in 1809, has built its success through unwavering commitment to liberal arts undergraduate education and the active engagement of its students in both curricular and co-curricular life. It is deeply committed to student success, builds great student and alumni loyalty, and empowers its students, faculty, and staff to become engaged citizens who use their knowledge and skills with integrity and compassion to improve the future of our global society.

Miami provides the opportunities of a major university while offering the personalized attention found in the best small colleges. It values teaching and intense engagement of faculty with students through its teacher-scholar model, by inviting students into the excitement of research and discovery. Miami’s faculty are nationally prominent scholars and artists who contribute to Miami, their own disciplines and to society by the creation of new knowledge and art. The University supports students in a highly involving residential experience on the Oxford campus and provides access to students, including those who are time and place bound, on its regional campus. Miami provides a strong foundation in the traditional liberal arts for all students, and it offers nationally recognized majors in the arts and sciences, business, education, engineering, and fine arts, as well as select graduate programs of excellence. As an inclusive community, Miami strives to cultivate an environment where diversity and difference are appreciated and respected.

Miami instills in its students intellectual depth and curiosity, the importance of personal values as a measure of character, and a commitment to life-long learning. Miami emphasizes critical thinking and independent thought, an appreciation of diverse views, and a sense of responsibility to our global future.

Athletic Department Mission Statement:
Family is defined as "two or more people who share goals and values, and have long-term commitments to one another." The Athletic Department prides itself on being a family atmosphere. A true care and concern for our coaches, staff, and student-athletes is exuded daily by one another. Shown by this deep commitment to one another, every person works together toward common goals. From regular department gatherings to
teams supporting one another at each other's competitions, staff and student-athletes share the same values and principles as we all strive to become a Culture of Champions. Develop is defined as "to aid in the growth of; to improve the quality of; to influence the behavior of; and to convert or transform." The underlying purpose of our department is to maximize the human development of our student-athletes and staff members. Our department is concerned that our student-athletes develop in all facets of their lives while at Miami University. From academic prosperity to championship greatness with the student-athletes and staff, our athletic department want to grow, improve, influence, and transform to become a Culture of Champions.

Champions are "those who win first prize; is clearly superior or has attributes of a winner; is a supporter of the greater cause; fights tenaciously for the overall cause." In our department a champion is defined as one who exudes excellence in their approach to everyday life. It is a belief that 'part-time excellence' is not acceptable and your absolute best will be expected daily. We truly believe that our student-athletes learn more about life as winners than they do finishing anything less. The personal attributes of our student-athletes and staff members are those of winners, focused on becoming a Culture of Champions.

Love is defined as "infused with a deep feeling or passion; strong commitment, enthusiasm, or drive for anything". What is unique about the word 'Love' to Miami Athletics is that it's part of our fight song. Our student-athletes and staff members are passionate about Miami University and the athletic department. Miami is a very prideful place and people who choose to be associated with the University in some manner, quickly find out that fellow Miamians love to speak about what a great place this is. Those associated with our athletic department have a strong passion and commitment to becoming a Culture of Champions.

Honor is defined as "honesty, fairness, or integrity in ones actions; a source of credit or distinction; garnering high respect or esteem." Similar to the word 'Love', the word 'Honor' is unique as it combines with 'Love' to create the most famous phrase in the fight song. There is no better way to 'honor' our great institution than by knowingly doing what's right. We aspire to be champions in everything we do, but not at the sacrifice of our integrity. Miami University is the 8th oldest public institution in this great nation and we need to constantly honor what we stand for. The actions and words of our student-athletes and staff are held in high respect because we know they are honest as we build toward a Culture of Champions.

Strength and Conditioning Mission Statement: None

Carnegie Classification: Research Universities (high research activity)

2010 Total Student Population (Graduate + Undergraduate): 17,191

2010 Graduation Rate: 68.0%

2010 Total Cost: $40,618

2010 Percentage of Student Body that is a Varsity Athlete: 3.4%
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**Western Michigan University**

MAC Membership: 1947

Founded: 1903

Mission Statement: Western Michigan University is a learner-centered, research university, building intellectual inquiry and discovery into undergraduate, graduate, and professional programs in a way that fosters knowledge and innovation, and transforms wisdom into action. As a public university, WMU provides leadership in teaching, research, learning, and service, and is committed to enhancing the future of our global citizenry.

Athletic Department Mission Statement: The mission of the Division of Intercollegiate Athletics at Western Michigan University shall be to produce NCAA Division IA programs for men and women characterized by excellence in Athletics and Academics while being recognized as a leader among ethical, non-discriminatory, and fiscally well-managed departments. Excellence in athletic programs is determined by academic achievement, the development of character, maturity, and a sense of fair play by student-athletes while being competitive. Excellence in athletic programs is also intended to engender support for the institution among many constituents, including student, faculty, alumni, and friends at the local, state, and national levels. In striving to become a leader among peer institutions, the department subscribes fully to the philosophy and regulations set forth by the Central Collegiate Hockey Association, the Mid-American Conference, and the National Collegiate Athletic Association. The Division of Intercollegiate
Athletics operates within the regulations and non-discriminatory procedures established by the Board of Trustees of Western Michigan University.

Strength and Conditioning Department Mission Statement
The mission of the Western Michigan University strength and conditioning program is to provide each student athlete with an opportunity to develop their physical abilities, through safe and objective training. Through these means the strength and conditioning program will attempt to improve athletic performance and minimize injuries related to athletic competition.

Carnegie Classification: Research Universities (high research activity)

2010 Total Student Population (Graduate + Undergraduate): 24,818

2010 Graduation Rate: 21%

2010 Total Cost: $29,873

2010 Percentage of Student Body that is a Varsity Athlete: 2.0%

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Kent State University

MAC Membership: 1951

Founded: 1910
Mission Statement: The mission of Kent State University is to discover, create, apply and share knowledge, as well as to foster ethical and humanitarian values in the service of Ohio and the global community. As an eight-campus educational system, Kent State offers a broad array of academic programs to engage students in diverse learning environments that engage them to think critically and to expand their intellectual horizons while attaining the knowledge and skills necessary for responsible citizenship and productive careers.

Athletic Department Mission Statement: The Intercollegiate Athletic program at Kent State University competes at the highest National Collegiate Athletic Association (NCAA) Division I level (FBS for football) and provides select men and women with the opportunity, challenge and support to achieve their full academic and athletic potential, while operating as an integral part of the University's educational mission.

Strength and Conditioning Mission Statement: None

Carnegie Classification: Research Universities (high research activity)

2010 Total Student Population (Graduate + Undergraduate): 22,944

2010 Graduation Rate: 25.0%

2010 Total Cost: $

2010 Percentage of Student Body that is a Varsity Athlete: 2.6%

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The University of Toledo

MAC Membership: 1951

Founded: 1870

Mission Statement: The mission of The University of Toledo is to improve the human condition; to advance knowledge through excellence in learning, discovery, and engagement; and to serve as a diverse, student-centered public metropolitan research university.

Athletic Department Mission Statement: The University of Toledo Department of Intercollegiate Athletics is committed to providing a broad-based athletics program for men and women that strives for academic and competitive excellence at conference, regional and national levels.

Strength and Conditioning Mission Statement: None

2010 Carnegie Classification: Research Universities (high research activity)

2010 Total Student Population (Graduate + Undergraduate): 22,336

2010 Graduation Rate: 23.0%

2010 Total Average Cost: $29,834

2010 Percentage of Student Body that is a Varsity Athlete: 2.6%

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<td>$17,577,137</td>
<td>$16,401,077</td>
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<td>2008</td>
<td>$19,082,009</td>
<td>$17,811,494</td>
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<tr>
<td>2009</td>
<td>$20,639,166</td>
<td>$19,330,595</td>
</tr>
<tr>
<td>2010</td>
<td>$19,966,412</td>
<td>$20,021,956</td>
</tr>
<tr>
<td>2011</td>
<td>$19,485,449</td>
<td>$20,673,092</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>$112,280,845</strong></td>
<td><strong>$110,497,093</strong></td>
</tr>
</tbody>
</table>
Bowling Green State University

MAC Membership: 1952

Founded: 1910

Mission Statement: Bowling Green State University provides educational experiences inside and outside the classroom that enhance the lives of students, faculty and staff. Students are prepared for lifelong career growth, lives of engaged citizenship, and leadership in a global society. Within our learning community, we build a welcoming, safe and diverse environment where the creative ideas and achievements of all can benefit others throughout Ohio, the nation, and the world.

Athletic Department Mission Statement: The Department of Intercollegiate Athletics at Bowling Green State University is committed to cultivating champions in academics, sport, and life. We are guided by the University’s traditions of academic excellence and service to community, and by its core values. We develop commitment to self and dedication to community, and foster the integrity and welfare of our student-athletes. We seek effective and efficient use of resources and maintain an unwavering commitment to fairness and teamwork. Our diverse backgrounds and talents shape our vibrant athletics community that offers unique learning opportunities. We serve our community through celebration of the University’s mission and heritage, and by helping to shape its tradition and future. We target excellence in 18 sports; we achieve it as one team.

Strength and Conditioning Department Mission Statement: Our mission is to achieve excellence by safely enhancing the athletic performance of our student athletes. We pursue this objective through diligence, integrity, education, and sound strength and conditioning practices. The Strength and Conditioning Staff believes in our Athletic Department’s commitment to fairness, teamwork, and an unwavering commitment to our students. We create effective and efficient strength and conditioning programs that ensure the best care for our teams. We cultivate champion student athletes in 18 sports. Our goal is excellence. We achieve our mission as one team.

Carnegie Classification: Research Universities (high research activity)

2010 Total Student Population (Graduate + Undergraduate): 17,874

2010 Graduation Rate: 34.0%
2010 Total Cost: $27,914
2010 Percentage that is a Varsity Athlete: 3.0%

<table>
<thead>
<tr>
<th>Year</th>
<th>Overall Revenues</th>
<th>Overall Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>$17,615,851</td>
<td>$17,200,166</td>
</tr>
<tr>
<td>2007</td>
<td>$19,995,372</td>
<td>$17,132,784</td>
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<tr>
<td>2008</td>
<td>$19,387,291</td>
<td>$17,789,360</td>
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<tr>
<td>2009</td>
<td>$17,814,168</td>
<td>$18,138,104</td>
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<tr>
<td>2010</td>
<td>$18,850,778</td>
<td>$17,850,240</td>
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<td>2011</td>
<td>$20,157,361</td>
<td>$18,031,088</td>
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<td>Grand Total</td>
<td>$113,820,821</td>
<td>$106,141,742</td>
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</tbody>
</table>

**Central Michigan University**

MAC Membership: 1972

Founded: 1892

Mission Statement: At Central Michigan University, we are a community committed to the pursuit of knowledge, wisdom, discovery, and creativity. We provide student-centered education and foster personal and intellectual growth to prepare students for productive careers, meaningful lives, and responsible citizenship in a global society.

Athletic Department Mission Statement: Same as University’s (listed above)

Strength and Conditioning Mission Statement: None

Carnegie Classification: Doctoral/Research Universities

2010 Total Student Population (Graduate + Undergraduate): 27,225

2010 Graduation Rate: 21.0%
2010 Total Cost: $32,127

2010 Percentage of Student Body that is a Varsity Athlete: 2.4%

<table>
<thead>
<tr>
<th>Year</th>
<th>Overall Revenues</th>
<th>Overall Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>$17,759,667</td>
<td>$17,476,651</td>
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<td>2007</td>
<td>$20,434,174</td>
<td>$20,283,635</td>
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<td>2008</td>
<td>$21,103,460</td>
<td>$21,636,204</td>
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<tr>
<td>2009</td>
<td>$22,224,245</td>
<td>$22,418,292</td>
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<td>2010</td>
<td>$24,703,101</td>
<td>$24,104,699</td>
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<tr>
<td>2011</td>
<td>$23,500,552</td>
<td>$23,423,660</td>
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<tr>
<td><strong>Grand Total</strong></td>
<td><strong>$129,725,199</strong></td>
<td><strong>$129,343,141</strong></td>
</tr>
</tbody>
</table>

**Eastern Michigan University**

MAC Membership: 1972

Founded: 1849

Mission Statement: Eastern Michigan University is committed to excellence in teaching through traditional and innovative approaches, the extension of knowledge through basic and applied research, and creative and artistic expression. Building on a proud tradition of national leadership in the preparation of teachers, we maximize educational opportunities and personal and professional growth for students from diverse backgrounds through any array of baccalaureate, master’s, and doctoral programs.

We strive to provide a student-centered learning environment that enhances the lives of students and positively impacts the community. We extend our commitment beyond the campus boundaries to a wider community through service initiatives, and public and private partnerships of mutual interest addressing local, regional, national and international opportunities and challenges.
Athletic Department Mission Statement: Our mission above all else, is to guide, support and inspire our student-athletes in their pursuit of excellence—academically, athletically and socially while maintaining a successful Division I-A athletics program.

Strength and Conditioning Mission Statement: Our mission is to develop strong minds within strong bodies through motivated coaching and education to produce successful leaders throughout the college experience and life.

Carnegie Classification: Master’s Colleges and Universities (larger programs)

2010 Total Student Population (Graduate + Undergraduate): 22,032

2010 Graduation Rate:

2010 Total Cost: $31,384

2010 Percentage of Student Body that is a Varsity Athlete: 4.1%

<table>
<thead>
<tr>
<th>Year</th>
<th>Overall Revenue</th>
<th>Overall Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>$19,712,553</td>
<td>$19,238,903</td>
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<tr>
<td>2007</td>
<td>$25,637,551</td>
<td>$23,585,654</td>
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<td>2008</td>
<td>$24,971,850</td>
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<td>2009</td>
<td>$24,854,558</td>
<td>$23,615,132</td>
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<td>2010</td>
<td>$26,270,721</td>
<td>$24,635,531</td>
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<tr>
<td>2011</td>
<td>$27,717,621</td>
<td>$25,971,066</td>
</tr>
<tr>
<td>Grand Total</td>
<td>$149,164,854</td>
<td>$142,199,679</td>
</tr>
</tbody>
</table>

Ball State University

MAC Membership: 1973

Founded: 1918
Mission Statement: Ball State University is an innovative, supportive academic community that inspires students by:
Offering action-oriented learning, including immersive out-of-class experiences, research, and study-abroad.
Providing extraordinary access to and collaboration with professors who create scholarship to advance knowledge, improve teaching, and transform learning.
Engaging state, national, and international communities to enhance educational, economic, and cultural development.

Athletic Department Mission Statement: Same as University’s (listed above)

Strength and Conditioning Mission Statement: None

Carnegie Classification: Research Universities

2010 Total Student Population (Graduate + Undergraduate): 20,243

2010 Graduation Rate: 34.0%

2010 Total Cost: $30,504

2010 Percentage of Student Body that is a Varsity Athlete: 2.8%

<table>
<thead>
<tr>
<th>Year</th>
<th>Overall Revenues</th>
<th>Overall Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>$16,192,664</td>
<td>$16,189,583</td>
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<tr>
<td>2007</td>
<td>$17,300,783</td>
<td>$17,144,947</td>
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<td>2008</td>
<td>$22,125,129</td>
<td>$19,441,780</td>
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<tr>
<td>2009</td>
<td>$20,498,088</td>
<td>$19,616,773</td>
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<tr>
<td>2010</td>
<td>$20,132,632</td>
<td>$17,347,944</td>
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<td>2011</td>
<td>$20,483,476</td>
<td>$19,506,118</td>
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<tr>
<td>Grand Total</td>
<td>$116,732,772</td>
<td>$109,247,145</td>
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</tbody>
</table>
The University of Akron

MAC Membership: 1992

Founded: 1870

Mission Statement: The University of Akron, a publicly assisted metropolitan institution, strives to develop enlightened members of society. It offers comprehensive programs of instruction from associate through doctoral levels; pursues a vigorous agenda of research in the arts, sciences, and professions; and provides service to the community. The University pursues excellence in undergraduate and graduate education, and distinction in selected areas of graduate instruction, inquiry, and creative activity.

Athletic Department Mission Statement: Same as University’s (listed above)

Strength and Conditioning Mission Statement: None

Carnegie Classification: Research Universities (high research activity)

2010 Total Student Population (Graduate + Undergraduate): 24,119

2010 Graduation Rate: 12.0%

2010 Total Cost: $29,592

2010 Percentage of Student Body that is a Varsity Athlete: 2.9%

<table>
<thead>
<tr>
<th>Year</th>
<th>Overall Revenues</th>
<th>Overall Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>$15,301,573</td>
<td>$15,751,464</td>
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<td>2007</td>
<td>$17,308,323</td>
<td>$16,992,718</td>
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<td>2008</td>
<td>$18,711,948</td>
<td>$18,858,092</td>
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<td>2009</td>
<td>$20,670,298</td>
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<td>2010</td>
<td>$24,012,416</td>
<td>$24,498,336</td>
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<td>2011</td>
<td>$25,583,730</td>
<td>$25,344,459</td>
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<td><strong>Grand Total</strong></td>
<td><strong>$122,588,288</strong></td>
<td><strong>$121,569,182</strong></td>
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Northern Illinois University

MAC Membership: 1997

Founded: 1899

Mission Statement: The mission of the University is to promote excellence and engagement in teaching and learning, research and scholarship, creativity and artistry, and outreach and service.

Athletic Department Mission Statement: We develop champions in the classroom, in competition, and in life.

Strength and Conditioning Mission Statement: None

Carnegie Classification: Research Universities (high research activity)

2010 Total Student Population (Graduate + Undergraduate): 24,397

2010 Graduation Rate: 23.0%

2010 Total Cost: $28,540

2010 Percentage of Student Body that is a Varsity Athlete: 2.7%

<table>
<thead>
<tr>
<th>Year</th>
<th>Overall Revenues</th>
<th>Overall Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>$17,537,089</td>
<td>$16,670,569</td>
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<tr>
<td>2007</td>
<td>$19,400,270</td>
<td>$18,934,750</td>
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<td>2008</td>
<td>$23,342,006</td>
<td>$22,448,970</td>
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<td>2009</td>
<td>$21,243,679</td>
<td>$23,770,449</td>
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<tr>
<td>2010</td>
<td>$22,210,800</td>
<td>$21,899,024</td>
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<td>2011</td>
<td>$24,148,602</td>
<td>$22,793,622</td>
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<tr>
<td>Grand Total</td>
<td>$127,882,446</td>
<td>$126,517,384</td>
</tr>
</tbody>
</table>
University at Buffalo

MAC Membership: 1998

Founded: 1846

Mission Statement: At the University at Buffalo, we view the tripartite mission of the public university—research, education, and public services— not as separate or discrete actions, but as interdependent activities continually informing and enriching each other. As a public research university, we value our institutional responsibility to bring the benefits of our research, scholarship, and teaching excellence to the members of our local and world communities in ways that enhance both our understanding of the world and the quality of life for all people.

Athletic Department Mission Statement: To enhance the mission of the University by promoting institutional pride through the pursuit of athletic excellence and service to the community.

Strength and Conditioning Mission Statement: None

Carnegie Classification: Research Universities (high research activity)

2010 Total Student Population (Graduate + Undergraduate): 28,192

2010 Graduation Rate: 40%

2010 Total Cost: $24,318

2010 Percentage of Student Body that is a Varsity Athlete: NA

<table>
<thead>
<tr>
<th>Year</th>
<th>Overall Revenues</th>
<th>Overall Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
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<td>$20,888,277</td>
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<td>2007</td>
<td>$22,071,264</td>
<td>$22,068,328</td>
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<tr>
<td>2008</td>
<td>$21,859,641</td>
<td>$21,854,374</td>
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<td>2009</td>
<td>$25,944,465</td>
<td>$25,942,006</td>
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<td>$25,385,009</td>
<td>$16,973,585</td>
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<td>$26,228,030</td>
<td>$26,221,691</td>
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<td>$133,948,261</td>
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