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Examining Factors Influencing NCAA Division-I Conference Realignment

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EXAMINING FACTORS INFLUENCING NCAA DIVISION-I
CONFERENCE REALIGNMENT

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ABSTRACT

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Examining the Factors Influencing Conference Realignment

The landscape of intercollegiate athletics continues to evolve and become more dynamic. One of the most visible aspects of these changes is athletic conference realignment. During the period from 2010 to 2014 alone, over 30 institutions across the National Collegiate Athletic Association's (NCAA) Football Bowl Subdivision (FBS) changed or announced imminent plans to change athletic conference affiliation (Mandel, 2012). Conference realignment is described as institutional changes in athletic conference affiliation (Covell & Barr, 2010; Groza, 2010; Sweitzer, 2009). Various literature has identified variables which influence NCAA Division-I institutions' decisions in regard to conference realignment, yet no comprehensive study has examined the topic. This study examines factors believed to serve as incentive for institutions to engage in realignment.

Four institutional decision makers are tasked with athletics oversight: university presidents, athletic directors, senior woman administrators, and faculty athletic representatives. Based on their perceptions, factors emerged which serve as incentive for NCAA Division-I institutions to engage in realignment. Data were collected utilizing a five-point Likert-item survey. Subsequently data were submitted to exploratory factor analysis, a series of paired samples t-tests, and one-way analyses of variance. Findings indicate that Revenue, Academic Prestige, Team Travel, Athletic Prestige, Exposure, and Competitive Balance are factors that incentivize institutions to consider a change in conference affiliation.

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TABLE OF CONTENTS

| | Page |
|---|------|
| Abstract | iii |
| Acknowledgements..... | iv |
| List of Tables..... | viii |
| List of Figures..... | ix |
| CHAPTER 1 INTRODUCTION..... | 1 |
| Overview..... | 1 |
| Modern Conference Realignment..... | 3 |
| Institutional Decisions..... | 5 |
| Factors Incentivizing Conference Realignment Decisions..... | 6 |
| Theoretical Underpinnings..... | 7 |
| Statement of the Problem | 9 |
| Purpose of the Study..... | 10 |
| Research Questions | 11 |
| Limitations..... | 12 |
| Delimitations..... | 13 |
| Assumptions..... | 13 |
| Significance of the Study | 14 |
| Research Design | 14 |
| Definition of Terms | 16 |
| Summary..... | 19 |
| CHAPTER 2 REVIEW OF RELATED LITERATURE..... | 21 |
| Historical Role and Formation of the Athletic Conference..... | 21 |
| Conference Realignment..... | 27 |

| | |
|---|-----|
| Incentives to Engage in Conference Realignment..... | 31 |
| Institutional Decisions Related to Intercollegiate Athletics..... | 50 |
| Connection to Conference Realignment..... | 58 |
| Principal-Agent Theory..... | 59 |
| Summary of the Literature..... | 70 |
| CHAPTER 3 METHODOLOGY..... | 72 |
| Research Questions | 72 |
| Research Design | 73 |
| Participants..... | 75 |
| Instrumentation and Variables..... | 76 |
| Reliability and Validity..... | 79 |
| Procedure..... | 81 |
| Summary..... | 91 |
| CHAPTER 4 RESULTS..... | 93 |
| Response Rate..... | 93 |
| Participant Profile..... | 94 |
| Item Analysis..... | 96 |
| Research Question #1..... | 98 |
| Research Question #2..... | 103 |
| Research Question #3..... | 110 |
| Summary..... | 119 |
| CHAPTER 5 DISCUSSION..... | 120 |
| Overview of the Study..... | 120 |
| Research Question #1..... | 120 |
| Research Question #2..... | 132 |

| | |
|---|-----|
| Research Question #3..... | 134 |
| Research Question #4..... | 138 |
| Implications..... | 139 |
| Limitations..... | 140 |
| Future Research..... | 143 |
| Summary..... | 144 |
| Appendices | |
| A. Comments from Expert Panel..... | 146 |
| B. Construction of Items and Theoretical Factors..... | 149 |
| C. Survey Items..... | 154 |
| D. Statement of Informed Consent..... | 155 |
| E. Exploratory Factor Analysis Specifications..... | 157 |
| F. Paired Samples t-tests for All Factors..... | 158 |
| G. Conference Representation..... | 164 |
| H. Factor Solutions..... | 165 |
| I. Factor Loadings..... | 167 |
| References..... | 169 |
| Author's Curriculum Vitae..... | 177 |

LIST OF TABLES

| Table | Page |
|--|------|
| 1. Research Questions and Analysis..... | 83 |
| 2. Response Rate by Institutional Position..... | 95 |
| 3. Survey Item Analysis..... | 97 |
| 4. Initial Factor Extraction and Total Explained Variance..... | 100 |
| 5. Reliability for Individual Factors..... | 102 |
| 6. Descriptive Statistics for all Factors..... | 105 |
| 7. Results of Paired Samples t-test for All Factors..... | 106 |
| 8. Results of Omnibus F Test..... | 108 |
| 9. Least Significant Differences Post-hoc Analysis..... | 109 |
| 10. Descriptive Statistics for Institutional Administrator Groups..... | 111 |
| 11. Factor Significance for Institutional Administrator Groups..... | 114 |
| 12. Least Significant Differences Post-hoc Contrasts..... | 118 |

LIST OF FIGURES

| | Page |
|--|------|
| Figure | |
| 1. The Principal-Agent Relationship..... | 9 |
| 2. Conceptual Principal-Agent Model..... | 67 |
| 3. Conceptual Interdependent and Collaborative Organizations Model | 68 |

CHAPTER 1

INTRODUCTION

Overview

The landscape of intercollegiate athletics continues to evolve and become more dynamic. One of the most visible aspects of these changes is athletic conference realignment. During the period from 2010 to 2014 alone, over 30 institutions across the National Collegiate Athletic Association's (NCAA) Football Bowl Subdivision (FBS) changed or announced imminent plans to change athletic conference affiliation (Mandel, 2012). Conference realignment is described as an institution's decision to change athletic conference affiliation (Covell & Barr, 2010; Groza, 2010; Sweitzer, 2009). Institutions typically align with athletic conferences so that their own interests and those of the conferences can be met through the symbiotic arrangement. Conferences assist in establishing rules for fair athletic play, provide a unified voice for the leadership of each of its member institutions, and maintain a role as the liaison with external constituents (Covell & Barr, 2010).

Athletic conferences emerged out of a need for direct oversight for issues related to a number of members institutions' athletic programs such as fair play and student-athlete eligibility. Typically, institutions that comprise a conference share similar academic and athletic profiles as well as similar interests (Covell & Barr, 2010). For example, the institutions of higher education which comprise the Big Ten Conference (Big Ten) are *generally* public, flagship research institutions associated with the Committee on Institutional Cooperation, the academic equivalent of the Big Ten. Additionally, these schools collectively sponsor nearly 30 men's and women's sports (Covell & Barr, 2010). Conference member institutions are able to establish a reputation

through their relationships with their respective conferences (Shulman & Bowen, 2002). In this sense, it is believed to be beneficial for all parties involved to achieve long-term stability in regard to conference affiliation.

Historically, many NCAA Division-I institutions and conferences have been successful in maintaining long-term stability with one another. A review of the major NCAA Division-I conferences is illustrative of this point. For example, The Big Ten became an official conference in the late 19th century (Covell & Barr, 2010; Quirk, 2004). Original membership included the University of Chicago, the University of Illinois, the University of Michigan, Northwestern University, Purdue University, and the University of Wisconsin. The University of Chicago left the conference in 1944 and Michigan State University (MSU) joined in 1950 (Covell & Barr, 2010; Quirk, 2004). The Big Ten realigned in 2011 to include the University of Nebraska and will realign once again in 2014 to include Rutgers University and the University of Maryland (Mandel, 2012). Other than recent realignment in 2011 and upcoming realignment in 2014, the Big Ten last realigned in 1993 when Pennsylvania State University joined (Quirk, 2004). Previous to that, no institution had joined the conference since the aforementioned 1950 addition of MSU (Duderstadt, 2003b). Similar runs of long-term stability have been illustrated in other NCAA Division-I conferences.

The Atlantic Coast Conference began in 1953 and realigned in 1979, 1991, 2003-2005, 2013, and will do so again in 2014 (Blaudschun, 2005; Mandel, 2012; Quirk, 2004). The American Athletic Conference (formerly known as the Big East Conference) remained stable from its establishment in 1979 until 1991 when Rutgers University, Temple University, the University of Miami, Virginia Tech, and West Virginia

University joined (Blaudschun, 2005; Quirk, 2004). It realigned again in 2004-2005, 2012, and 2013 (Blaudschun, 2005; Mandel, 2012). The Big 12, which began as a conference in 1996 did not alter its membership until 2011 and again in 2012 (Perline & Stoldt, 2007; Mandel, 2012). After its founding in 1932 and limited realignment in its early years, the Southeastern Conference remained stable from 1965 to 1992 when the University of Arkansas and the University of South Carolina joined (Quirk, 2004), and again in 2012 as Texas A and M University and the University of Missouri joined (Mandel, 2012). The Pac-12 Conference remained stable from 1978 until recently when the University of Colorado and the University of Utah joined in 2011. Widespread conference realignment among NCAA Division-I conferences occurred at either one of three critical points in time. The first point in time spans the early to mid-1990s, the second point in time spans 2003-2005, and third spans approximately 2010-2013. Each span is described below.

Modern Conference Realignment

Traditionally, the NCAA had negotiated television broadcast rights for football on behalf of its members resulting in limited television exposure and inequitable revenue distributions for its member institutions (Siegfried & Gardner-Burba, 2004). Several institutions aligned with one another to create the College Football Association (CFA) in 1977. This served, in part, as a protest to the NCAA's role in television broadcast negotiations and to push for better representation of CFA members' interests in television broadcast rights negotiations. Once the NCAA was forced to lift their control over television broadcast negotiations at the behest of the United States Supreme Court in

1984, some institutions and their conferences began to negotiate for themselves, while others remained with the CFA (Siegfried & Gardner-Burba, 2004).

As television revenue became more lucrative, conferences assumed the lead in television broadcast negotiations except for the University of Notre Dame which was able to secure its own television broadcast package (Dennie, 2012; Siegfried & Gardner-Burba, 2004). This, along with other mitigating factors such as NCAA rules violations and improprieties by member institutions, led to the demise of the CFA as the sole collective television broadcast rights negotiator at the end of the 1997 fiscal year (Siegfried & Gardner-Burba, 2004). In order for schools and conferences to maximize television revenue, institutions' attractive football programs and major Division-I conferences affiliated with one another (Shulman & Bowen, 2002; Siegfried & Gardner-Burba, 2004). This explains the period of realignment which occurred between 1990 and 1996. The second wave of modern conference realignment is described next.

As noted, conference realignment also occurred from 2003-2005 chiefly involving dozens of institutions across 14 NCAA Division-I conferences. What occurred during this wave of realignment may be considered a "domino effect". For example, new member institutions joined the ACC from the Big East, new member institutions joined the Big East and the Atlantic-10 Conference from Conference-USA, new member institutions joined Conference-USA from the Mid-American Conference and the Western Athletic Conference, new member institutions joined the Western Athletic Conference from the Sun Belt Conference, and the Sun Belt Conference added membership from the second tier of the NCAA's Division-I structure (Covell & Barr, 2010; Quirk, 2004). Despite the

level of mobility described during this second wave of modern conference realignment, the third wave has outpaced this.

Conference realignment occurring from 2010-2014 has involved all 32 of the NCAA's Division-I conferences, and dozens of member institutions. There has been a great deal of speculation among researchers and practitioners as to what has influenced institutions to change conference affiliations particularly at such a rapid pace when long-term stability with conference membership appears to have been the norm, historically. For example, Eckard (1998), Groza (2010), Sutter and Winkler (2003), Perline and Stoldt (2007), Quirk (2004), and Rhoads (2004) have indicated that issues of competitive balance may serve as the catalyst for an institution to change its conference affiliation. That is, if a member institution's athletic program in a particular conference is historically overachieving or underachieving relative to other conference member institutions, it may face internal or external pressures to join another conference (Quirk, 2004). This is one viewpoint of what may influence conference realignment decisions but, nonetheless, such decisions at the institutional level are led by individuals in university and athletics leadership. The following section provides an overview of the key institutional administrators in this regard.

Institutional Decisions

The size, structure, and policies of modern college athletic departments have warranted oversight from a number of institutional administrators. University presidents are charged with the oversight of their institution including the institution's athletic program (Covell & Barr, 2010; Deuderstadt, 2003a; Duderstadt, 2003b; Duderstadt, 2003c; Flowers, 2007; Frey, 1987; KCIA, 1991; NCAA, 1996; NCAA, 2013). Presidents

cede a certain degree of autonomy over athletic programs to their athletic directors (Duderstadt, 2003a; Duderstadt, 2003b; Duderstadt, 2003c), senior woman administrators (Hoffman, 2010; NCAA, 2013; Pent, Grappendorf, & Henderson, 2007), and faculty athletic representatives (Duderstadt, 2003a, Duderstadt, 2003b, Duderstadt, 2003c; Frey, 1987, NCAA, 2013). These individuals all help to guide an institution's athletic programs, ostensibly including conference realignment decisions. The following section outlines factors which may play a role in influencing conference realignment decisions. More detail on the role of each will be provided in chapter 2.

Factors Incentivizing Conference Realignment Decisions

Through analysis of existing scholarly literature examining conference affiliation and realignment, seven factors emerged which may influence institutions' decisions to change conference affiliation: 1) Competitive Balance (Covell & Barr, 2010; Eckard, 1998; Groza, 2010; Perline & Stoldt, 2007; Quirk, 2004; Sutter & Winkler, 2003), 2) Revenue (Carmichael, 2002; Eckard, 1998; Groza, 2010; Perline & Stoldt, 2007; Rhoads, 2004; Shulman & Bowen, 2002; Sutter & Winkler, 2003; Sweitzer, 2009; Tucker, 2005), 3) Exposure (Carmichael, 2002; Groza, 2010; Perlone & Stoldt, 2007; Sweitzer, 2009; Toma, 1999; Tucker, 2004; Tucker, 2005), 4) Athletic Prestige (Groza, 2010; Price & Sen, 2003; Quirk, 2004; Sutter & Winkler, 2003), 5) Academic Prestige (Carmichael, 2002; Groza, 2010; Shulman & Bowen, 2002; Sweitzer, 2009), 6) Team Travel (Duderstadt, 2003a; Grappendorf & Henderson, 2007; Groza, 2010; Havard & Eddy, 2013; Perline & Stoldt, 2007; Price & Sen, 2003; Sweitzer, 2009), and 7) Alumni (Fan) Proximity (Carmichael, 2002; Flowers, 2007; Frank, 2004; Groza, 2010; Price & Sen, 2003; Sutter & Winkler, 2003; Sweitzer, 2009; Toma, 1999; Tucker, 2004). Although

these seven factors have been identified independently, there is no research which simultaneously examines these factors' influence in an institution's decision to change conference affiliation. To better understand this realignment process and the relationship between institutions and conferences, principal-agent theory is forwarded as the theoretical lens to examine conference realignment.

Theoretical Underpinnings

An appropriate theoretical lens to help understand an institution's decision to change conference affiliation is principal-agent theory (Eisenhardt, 1989). The theory addresses the relationship between multiple parties in the case where one party, the principal, aligns with another party, the agent. The theory suggests that the principal is unwilling or unable to complete certain tasks independently and affiliates with the agent, who is better able to execute said tasks. In this sense, the principal is incentivized to join with the agent and the agent may also receive some incentive in joining with the principal. However, issues arise if the interests of the principal and agent diverge. The theory is further described below.

Principal-agent theory. It has been suggested that all contractual relationships pay homage to principal-agent relationship to a certain extent as there are certain mitigating factors which help to accentuate the relationship (Bebchuk & Fried, 2004). The relationship between a member institution and a conference is also contractual in nature. By affiliating with a particular conference as the agent, member institutions expect certain interests to be fulfilled (Covell & Barr, 2010). For example, an institution's conference affiliation may provide the institution's athletic programs with opportunities to win games and championships, acquire revenue per conference revenue sharing

agreements, and attain wide spread media exposure in line with its brand extension ambitions. In maintaining this alliance contractually, the types of benefits as illustrated above are available to all conference members, and likely available in varying degrees.

What helps to maintain the relationship between the two parties is the incentive which defines the relationship. Each side receives some benefit out of the affiliation (Bebchuk & Fried, 2004; Deming, 1986; Fleisher, 1991; Mitnick & Backoff, 1984); the principal provides an incentive to the agent to receive a benefit from the agent. Principal-agent theory (PAT) suggests that a principal affiliates with an agent to represent its interests because the principal is unwilling or unable to do so for various reasons. The relationship allows for the interests of both parties to be served but the agent may have access to asymmetric information-information the principal is unaware of by nature of the relationship. The agent may then compromise the relationship so that the agent's interests are served over the principal's interests forcing an undue burden on the principal. Incentivizing the relationship through more tightly coupled governance or compensation may help to ensure a stable and satisfactory relationship for both parties (Bebchuk & Fried, 2004; Deming, 1986; Fleisher, 1991; Mitnick & Backoff, 1984). The concepts within PAT may become clear when applied to conference realignment as depicted below.

Application of principal-agent theory. In applying PAT to conference realignment, the member institution serving as the principal, affiliates with the conference as the agent. The conference can provide incentives to the principal such as exposure or conference-wide revenue sharing which the institution is unable to achieve independently. It should be noted that although the principal institution has affiliated with

the agent conference, the roles may be reversed at certain points throughout the relationship creating the multiple principals condition. Figure 1 illustrates the principal-agent relationship as applied to conference realignment.

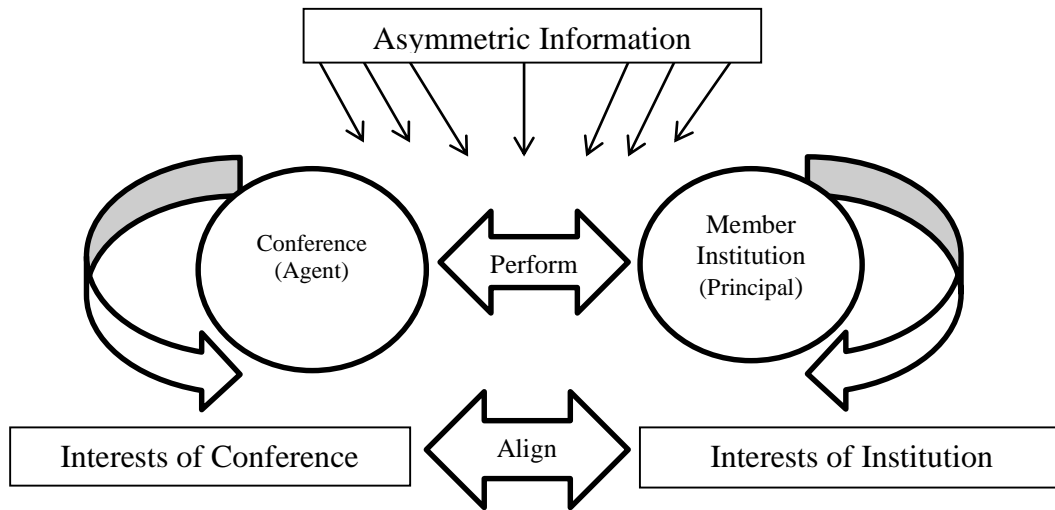


Figure 1 The Principal-Agent Relationship

With background and overview information provided, it seems appropriate to discuss why factors influencing conference realignment at NCAA Division-I institutions should be examined. Chief among this explanation is a description of both the problem and the purpose related to this study. The problem is introduced in the subsequent section.

Statement of the Problem

Conferences and their member institutions have historically enjoyed stable long-term relationships. Three distinct periods within the modern era of conference realignment have undermined the long-term stability of these relations: 1990-1996, 2003-2005, and 2010-2013 (Dennie, 2012; Mandel, 2012; Quirk 2004). Issues related to the role of intercollegiate athletics, conference affiliation, and conference realignment have been examined in various contexts but none fully examines incentives and institutional

decisions to change conference affiliation. Because conferences have historically maintained long-term relationships with their member institutions and, at present, a number of schools have changed or will change conference affiliation particularly at a rapid rate, it seems appropriate to study conference realignment in the context of what incentivizes institutions to realign.

Intercollegiate athletic decision makers have been identified as university presidents (Covell & Barr, 2010; Duderstadt, 2003a; Duderstadt, 2003b; Frey, 1987; KCIA, 1991; NCAA, 1996; NCAA, 2013), athletic directors (Covell & Barr, 2010; Duderstadt, 2003a; NCAA, 2013), senior woman administrators (Hoffman, 2010; NCAA, 2013; Pent, Grappendorf, & Henderson, 2007), and faculty athletic representatives (Duderstadt, 2003a; Frey, 1987, NCAA, 2013). Through a scholarly review of literature, seven factors that may incentivize National Collegiate Athletic Association (NCAA) Division-I institutional decisions to realign have been identified.

No study to date examines institutional decision makers' perspectives in regard to the identified factors of conference realignment. It is also problematic that no study has examined this topic as conference realignment is seemingly becoming one of the most visible changes of the dynamic intercollegiate athletics landscape. The outcomes of this study may impact strategic management decisions in higher education and intercollegiate athletics as described in the purpose of the study below.

Purpose of the Study

The purpose of this study is to examine factors that serve as an incentive for institutions to realign with a particular conference based on the perceptions of the identified administrators, grounded in principal-agent theory as a means to help understand the relationship between NCAA Division-I institutions and conferences.

The specific goals of the study include: 1) to determine which factors exist that incentivize an institution's change in athletic conference affiliation, 2) to determine if some factors serve as more of an incentive than others in the decision to change athletic conference affiliation, 3) to determine if the perceptions of institutional administrators differ in regard to incentives to change conference affiliation, 4) to determine the role that principal-agent theory plays in the relationship between member institutions and conferences during conference realignment, and 5) to identify and develop a scale for future research to assess institutional realignment decisions. Research questions aligned with these goals are stated below.

Research Questions

This study examines the four institutional decision maker's perspectives on the following research questions:

RQ#1: What factors serve as incentives for an institution to consider a change in conference affiliation?

RQ#2: Do some factors serve as more of an incentive for an institution to consider a change in athletic conference affiliation than others?

RQ#3: To what degree do perceptions among institutional administrators differ in regard to incentives to change conference affiliation?

RQ#4: To what degree does principal-agent theory help to understand the relationship between NCAA Division-I institutions and conferences?

The outcomes of this study provide practical insight for higher education and intercollegiate athletics scholars and practitioners on the strategic management process of conference realignment. Despite the goals of this study, there are certain aspects within the study that cannot be controlled.

Limitations

This study is limited to the perspectives of university presidents, athletic directors, senior woman administrators, and faculty athletic representatives representing National Collegiate Athletic Association (NCAA) Division-I institutions. Because the study examines the perceptions of this specific group, it may be inappropriate to generalize findings to all other NCAA schools and divisions. Another aspect which limits this study is the assumption that all four identified institutional administrators have equal voices in the decision. In practice this is not the case as some roles may be more advisory in nature. This is mitigated through the construction of the data collection tool and addressed in Chapter 3 of this document.

A self-selection bias arose where some of the targeted participants chose not to be involved with the administered survey. These differences in motivation to complete the survey affected data collection. Additionally, those who did participate may have provided responses considered socially acceptable for their field or position, thus not providing a true reflection of their sentiments (Kachigan, 1982). Because there was not full participation from all of the individuals whom the survey was solicited, it is

inferences about non-respondents cannot be made. Along with these limitations, there are also certain aspects outside the scope of this study, highlighted within the following *Delimitations* section.

Delimitations

Scholarly literature has not identified other key stakeholders outside of university presidents, athletic directors, senior woman administrators, or faculty athletic representatives in regard to athletics program oversight which is why other institutional administrators are not included in this study. The study does not focus on National Collegiate Athletic Association divisions II or III (i.e. those outside of the Division-I level). Literature indicates that the profile of Division-I is highly recognizable and, additionally, conference realignment most commonly occurs at this level (Covell & Barr, 2010; Groza, 2010; Toma, 1999). Finally, the study operationalizes theoretical factors identified through relevant scholarly literature. There is a chief assumption which may influence the study addressed in the following section.

Assumptions

It is assumed each of the four respondent groups carry equal weight in institutional decision making and, therefore, has been analyzed without weighting them for importance. A second assumption based on initial research within the context of principal-agent theory, is that the institution fills the role of the principal. Finally, initial research indicates that SWAs and FARs may play advisory roles in athletics related decisions. To that point, it is assumed that their responses are objective, meaning not

based on the perspectives of the roles specific to their positions, so much as a representation of institution based decisions.

Significance of the Study

An examination of the perceptions of institutional decision makers in regard to conference realignment allows scholars and practitioners to understand what influences conference realignment decisions and what considerations are addressed during the process. This knowledge can help scholars and practitioners in the areas of higher education and intercollegiate athletics to better understand the strategic process of conference realignment. This study was executed in a meaningful manner in order to be significant to the field. Aspects of the research design and the study's execution are addressed in the subsequent *Research Design* section.

Research Design

Procedure. The study commenced with a review of survey items by a panel of seven scholars and practitioners who are experts in intercollegiate athletics. This review helped to ensure both content and construct validity. When that process was completed, the comprehensive study commenced with the survey administered to the 1,266 potential participants. An overview of the survey is outlined below.

Survey. The seven identified factors guided the creation of the survey which measured responses on 35 items related to each factor. The survey followed a Likert scale format as described next.

Likert scale. The survey incorporated a five-point Likert format to assess the extent to which participants believe certain items incentivize institutional conference

realignment. Incentives are central to principal-agent theory, and therefore the survey is linked directly to the theoretical framework. The survey also collected participant data relative to, their position at the institution, the conference in which the institution resides, whether the institution recently realigned, and what sports are considered during realignment decisions. In collecting this type of data, it is important that participants felt safe and that the study was not compromised due to breached data. Steps to ensure this are addressed next.

Confidentiality. Steps to ensure confidentiality of participant information and responses as set forth by University of Nevada Las Vegas Institutional Review Board (2013) were enacted to the fullest extent such as the issuance of an informed consent statement outlining the researcher's role and participants' role in the study and the collection of the bare minimum of identifiable participant information. With assurances of confidentiality addressed, it is now appropriate to highlight data analysis as outlined in the subsequent sections.

Factor analysis. Factor analysis is an effective method for data analysis as it will reduce the responses from the different participants into a set of factors (Kachigan, 1982). Data were submitted to an exploratory factor analysis (EFA) to define factors. The IBM SPSS Statistics 20 software package analyzed EFA data. EFA addresses RQ1. An additional method of analysis employed in this study is the paired-samples t-test, or more appropriately, a series of paired-samples t-tests, as described below.

Paired samples t-tests. Research Questions #2 and #3 are analyzed utilizing paired-samples t-tests. Paired samples t-tests are implemented to test the means of each pair of factors that emerge from the exploratory factor analysis from. Paired samples t-

tests are useful in analyzing two variables with the same units of measure from the same subjects from the same time to determine if the subjects score differently on one criterion compared to the other (Slate & Rojas-LeBouef, 2012). This is an appropriate method to determine which factors most incentivize an institution to engage in conference realignment by comparing means of each possible pair of factors across the sample. Data were analyzed utilizing the IBM SPSS Statistics 20 software package. A full description of study methods is provided in chapter 3. To provide better context for the study, a list of key terms has been created and defined in the next section.

Definition of Terms

Academic Prestige: Refers to the overall academic profile of an athletic conference. This is a construct of the academic profiles of the composition of conference member institutions.

Alumni (Fan) Proximity: Refers to the geographic footprint an athletic conference claims in regard to fans, alumni, and boosters of member institutions and the conference.

Athletic Conference: Athletic conferences are organizations, voluntary in membership, which help to create and enforce intercollegiate athletic policies among a group of institutions exuding the principles of collegiality, competition, and respect (Covell & Barr, 2010; Thelin, 1996).

Athletic Director: Covell and Barr (2010) describe the Athletic Director as a chief administrator in both intercollegiate and interscholastic athletics who oversees athletic related staff and operations of the athletic program.

Athletic Prestige: Refers to the overall athletic profile of an athletic conference. This construct is composed of the athletic profiles of conference member institutions.

Bowl Championship Series: Refers to the collection of five college football bowl games in the National Collegiate Athletic Association's Division-I Football Bowl Subdivision. This series of games pair ten teams ranked by the Bowl Championship Series system to participate in the five bowl games with one of the bowl games reserved for a match-up featuring the Bowl Championship Series two top ranked teams (Bowl Championship Series, 2013).

Bowl Game: Refers to a form of postseason participation for National Collegiate Athletic Association Division-I Football Bowl Subdivision institutions.

Competitive Balance: Refers to the equity among institutions within a conference in regard to athletic competition, facilities and amenities, and finances to support athletic programs.

Conference Realignment: Refers to institutional decisions to change athletic conference affiliation (Covell & Barr, 2010; Groza, 2010; Sweitzer, 2009).

Division-I: Refers to a membership tier of the National Collegiate Athletic Association structure. Membership is predicated on such areas as budget and revenue, financial aid, scheduling, and sport participation opportunities. Division-I is subdivided into three tiers (NCAA, 2013).

Exposure: Exposure refers to the reach and ability to engage new and emerging markets for the purposes of drawing attention to an institution and/or conference.

Factor: Refers to independent variables which may have an effect on particular outcomes in a study (Kachigan, 1982). In this study, factors are derived from previous literature about institutional ambitions, intercollegiate athletics, conference affiliations, and conference realignment.

Faculty Athletics Representative: “A faculty athletics representative is a member of an institution’s faculty or administrative staff who is designated by the institution’s president or chancellor or other appropriate entity to represent the institution and its faculty in the institution’s relationships with the NCAA and its conference(s), if any” (NCAA, 2013, p. 18).

Football Bowl Subdivision: Refers to the highest level of NCAA Division-I status. An institution classified in the Football Bowl Subdivision must meet certain prescribed requirements related to sport sponsorship, scheduling of competition, game attendance and financial aid for student-athletes (NCAA, 2013).

Football Championship Subdivision: Refers to the secondary level of NCAA Division-I status. An institution classified in the Football Championship Subdivision must meet certain prescribed requirements related to sport sponsorship, scheduling of competition, game attendance and financial aid for student-athletes which differs from the Football Bowl Subdivision (NCAA, 2013).

Intercollegiate Athletics: Intercollegiate Athletics refers to organized athletics competition between institutions of higher education in the United States (Covell & Barr, 2010).

National Collegiate Athletic Association: The National Collegiate Athletic Association is an organization, voluntary in membership, which oversees the operation of intercollegiate athletics in the United States (NCAA, 2013).

Revenue: For the purposes of this study, revenue refers to money coming into a conference and its member institutions by way of its association with a particular athletic conference. This may be in the form of game guarantees, gate receipts and concessions for intra-conference competition, payouts related to the conference's post-season affiliation, and television broadcast rights fees from conference agreements with television/media outlets (Howard & Crompton 2003)

Senior Woman Administrator: At the institutional level, "the senior woman administrator is the highest-ranking female involved in the management of an institution's intercollegiate athletics program. An institution with a female director of athletics may designate a different female involved with the management of the member's program as a fifth representative to the NCAA governance structure" (NCAA, 2013, p. 18)

Team Travel: Refers to the geographic footprint an athletic conference claims in regard to member institutions and intra-conference competition.

Summary

One of the most visible aspects of the changes in intercollegiate athletics is conference realignment. Institutions typically align with conferences so that their own interests and those of the conferences can be met through a symbiotic arrangement. Thus, conference realignment is described as institutional changes in athletic conference

affiliation (Covell & Barr, 2010; Groza, 2010; Sweitzer, 2009). Although it is beneficial for member intuitions and athletic conferences to maintain long-term relationships, member institutions have changed conference affiliation fairly regularly since 1990. An increasingly rapid rate of realignment has been witnessed from 2010-2014 (Mandel, 2012). Decisions to realign at the institutional level are that of university and athletic program leadership. Institutions may be incentivized to realign based on a number of factors. Through analysis of existing literature on the topic, seven factors have been identified which are believed to serve to incentivize the conference realignment decision process. To date, no study examines the perceptions of these individuals at National Collegiate Athletic Association Division-I institutions relative to what may influence realignment decisions. The purpose of the study is to examine factors that serve as incentive for institutions to realign with a particular conference. This study addresses to what degree principal-agent theory helps to understand the relationship between NCAA Division-I institutions and conferences.

CHAPTER 2

REVIEW OF RELATED LITERATURE

There has been a dearth of literature written about conference realignment. Specifically, literature related to issues such as institutional ambitions, the role of university and athletic program leadership, the role of intercollegiate athletics, and conference affiliation have been thoroughly reviewed in this study to gain a better understanding of what factors may incentivize institutions to engage in conference realignment. Sections within this chapter address the historical role and formation of athletic conferences, institutional incentives to engage in conference realignment, and institutional decisions related to conference realignment. Principal-agent theory is addressed as a means to frame the relationship between institutions and conferences. A historical overview of athletic conferences follows.

Historical Role and Formation of the Athletic Conference

When intercollegiate athletics began in the 19th century it served primarily as an outlet for students to occasionally escape the rigors of academia and maintain a sense of community (Bok, 2004; Covell & Barr, 2010; Bowen, 2002; Duderstadt, 2003a; Duderstadt, 2003b; Duderstadt, 2003c; Smith, 1990; Westby & Sack, 1976). To this point, intercollegiate athletics maintained a student-centered focus. For example, initial regulations were put in place during the later decades of the 1800s to ensure safety, purity, and sportsmanship among participants (Covell & Barr, 2010). The late 19th and early 20th centuries witnessed the formation of various oversight groups in intercollegiate athletics. These groups included student-run organizations, faculty athletic committees, and, at the behest of President Theodore Roosevelt, a new organization which would

become the National Collegiate Athletic Association in 1910 (Bok, 2003; Bowen, 2002; Covell & Barr, 2010; Duderstadt, 2003a; Flowers, 2007; Smith, 1990).

These groups helped to ensure fair play, and enforce academic standards for participants. Another governing body which emerged during this time period was the athletic conference. The Western Conference, now known as the Big Ten Conference, was the first conference to form when it was established in 1895 to monitor the collective interests of member institutions' athletic programs and ensure academics remained a part of the participants' experience (Covell & Barr, 2010; Shulman & Bowen, 2002).

As intercollegiate athletics became more popular at institutions across the country, more oversight was needed to govern the various groups of institutions engaged in athletics. To this point, athletic conferences were formed as oversight organizations to establish rules for fair play and a unified voice for the leadership for groups of member institutions historically typified by similar academic and athletic profiles (Covell & Barr, 2010; Shulman & Bowen, 2002; Thelin, 1996).

Athletic conferences have historically served as collaborative organizations encompassing interdependent member institutions. Conferences are unique in that member institutions join voluntarily in order to work with other member institutions as this serves as a mechanism in which to best address the interests of all members (Covell & Barr, 2010, Shulman & Bowen, 2002; Thelin, 1996). For example, an individual institution in the Southern Plains of the United States may seek to gain exposure in the Midwest United States while an established conference (i.e. its member institutions) in the Midwest United States may seek to gain exposure in the Southern Plains area of the

United States. The two sides may align so that these interests are met (Blaudschun, 2005; Covell & Barr, 2010; Shulman & Bowe, 2002; Thelin, 1996).

Throughout history, conferences have evolved to include working directly with the NCAA to streamline several processes such as student-athlete eligibility, recruitment of student-athletes, and team travel. The conference also helps with overall organizational management of member institutions' operations and conflict management both inside and outside the conference (Covell & Barr, 2010). For example, conferences often work with member institutions to ensure the scheduling of games and events and also mediate disputes related to competitive disagreements. Conferences have also assumed the chief role as the liaison to external constituents such as serving as the lead negotiator in securing television/media broadcast rights agreements on behalf of member institutions (Covell & Barr, 2010). The conference's role as the liaison to external constituents, particularly with television/media partners, speaks to the evolution of the athletic conference. This evolution is addressed in more depth below.

Evolving role of the athletic conference. As the popularity of college athletics rose in the United States, particularly NCAA Division-I football and men's basketball, the rise of sports broadcasting on television coincided (McChesney, 1989). Capitalizing on this popularity, the NCAA and the major television networks of the day entered into a series of carefully crafted national television broadcast agreements to bring college sports, particularly football, to the masses. Although these agreements would record millions of dollars in revenue for member institutions, the process was flawed in that it limited the number of times a school's football program could be televised and also paid schools equally regardless of a school's popularity in attracting fans and viewers (Dennie,

2012; Kozik, 1985; NCAA vs. Board of Regents of the University of Oklahoma, 1984; Siegfried & Garnder-Burba, 2004; U.S. Supreme Court, 1984).

Central to the evolving role of the athletic conference was a watershed moment in 1984 involving the University of Oklahoma, the NCAA, and the United States Supreme Court. In the 1980's, legal rulings were implemented across NCAA intercollegiate athletics in regard to television broadcasts rights. In fall of 1981, the University of Oklahoma filed suit against the NCAA in District Court claiming the NCAA's television broadcast rights agreement structure restrained trade and limited member institutions' athletics viability. By 1984, the case had reached the United States Supreme Court, as the NCAA had pursued the case through the appeals process. On June 27, 1984, the Supreme Court ruled that the NCAA broadcasting agreement violated the Sherman Antitrust Act in restraining free and open trade (Dennie, 2012; Siegfried & Garnder-Burba, 2004; U.S. Supreme Court, 1984). This ruling helped to revolutionize college athletics and, in particular, the role of the athletic conference as conferences now had the ability to negotiate multi-million dollar television broadcast rights packages for member institutions.

Athletic conferences subsequently became incorporated, non-profit business entities (Duderstadt, 2003c). This development is important to the evolution of the athletic conference as it produced a number of implications. For example, university presidents were now placed on the board of directors of these newly incorporated enterprises which provided legal oversight for athletic conference operations. Traditional day-to-day operations of athletic conference managers (i.e. athletic directors, and faculty members) became advisory in nature (Duderstadt, 2003c).

Covell and Barr (2010) and Duderstadt (2003c) note that the new role for university presidents in relation to their athletic conference oversight helped to also place an emphasis on the role of conference commissioners. Conference commissioners are appointed by presidents to oversee all conference related operations such as rules enforcement, corporate sponsorship procurement, and television broadcast rights negotiations (Covell & Barr, 2010). These individuals are typically experienced in working directly with athletic directors of the conference's member institutions as well as serving as an interface with athletic conference board of directors and external constituents (Covell & Barr, 2010; Duderstadt, 2003c).

With the Supreme Court decision, subsequent conference incorporation, and the new role of athletic conferences, Duderstadt (2003c) also notes that the most important conference related issues shifted to revenue sharing packages amongst conference members, post-season tournament and game affiliations, and issues related to gender equity. Related to these endeavors, conference realignment emerged as a new issue, particularly in regard to football (Duderstadt, 2003c).

The Supreme Court ruling and the subsequent autonomy granted to member institutions and their conferences created an avenue to reap television revenue associated with football. According to Shulman and Bowen (2002), the opportunity was not lost on the likes of many high profile NCAA Division-I institutions and conferences as a rush between football playing institutions and major conferences ensued. For example, strong football institutions such as Pennsylvania State University joined the Big Ten Conference, Florida State University joined the Atlantic Coast Conference, and the University of Arkansas and the University of South Carolina aligned with the

Southeastern Conference in the years succeeding the Supreme Court ruling (Quirk, 2004). The aforementioned conferences were able to reap high television revenues by acquiring new, strong, football playing institutions, while the moving institutions were now able to receive a portion of the new revenue (Dennie, 2012; Shulman & Bowen, 2002). This narrative continues to typify the relationship between member institutions and athletic conferences as described next.

The athletic conference in 2013. The athletic conference fans, scholars, and practitioners have come to know in 2013 has undergone a great deal of change since its initial inception in the 19th century. Literature related to conference realignment indicates that conference member institutions should help to provide exposure for the conference, assist in acquiring revenue for the conference, have athletic and academic profiles similar to other conference members, as well as provide regional homogeneity with other conference members, and provide a bridge to various fan and alumni bases. As a key role of the athletic conference became the acquisition of attractive television broadcasting packages, NCAA Division-I conferences began to seek strong athletic member affiliations, particularly in football and men's basketball, with the primary goal of helping the conference acquire greater revenue potential.

Athletic conferences in 2013 are generally larger than they have been in the past as most conferences house 12-16 member institutions. Conferences, in general, have historically housed 8-10 member institutions but began to grow with the rise in revenue associated with television broadcast rights and conference championships (Blaudschun, 2005; Dennie, 2012). Many conferences have deviated from the traditional geographic footprints to extend into new and emerging markets. For example, the Big Ten

Conference has historically held a strong footprint in the Midwest United States. In 2014, the University of Maryland and Rutgers University will join to give the Big Ten a stronger Eastern presence (Mandel, 2012). The evolved role of the athletic conference along with various considerations related to growth and reputation may serve as the impetus for athletic conference realignment decisions (Covell & Barr, 2010; Duderstadt, 2003c). The strategic process of conference realignment is examined in the next section.

Conference Realignment

This section will address key aspects of conference realignment of which appears to be a strategic process for member institutions to best position and align their interests with those of other institutions. As noted, the role of the athletic conference became vitally important in the 1980's as conferences now had the ability to negotiate television broadcast rights agreements on behalf of member institutions. What resulted appears to be one of the early waves of mass conference realignment at the NCAA Division-I level. For example, the Big East Conference (Big East) began as an athletic conference headlined by college basketball in 1979 (Reynolds, 1989). The Big East would realign approximately one decade into its existence in order to establish itself as a premier NCAA Division-I football conference (Dennie, 2012; Quirk, 2004).

Widespread realignment across the Division-I landscape occurred in the 1990s, again in the early years of the 21st century, and once more at the conclusion of the century's first decade. The era spanning 1990-2013 will be referred to as modern conference realignment. Each of the three waves of conference realignment within this era is addressed below.

First wave of modern conference realignment. By 1990, the Big East had expanded to include five football playing schools: Rutgers University, the University of Miami, Temple University, Virginia Tech, and West Virginia (Quirk, 2004). Similar realignment occurred throughout much of the major NCAA Division-I conferences as the Big Ten Conference added Pennsylvania State University in 1990, the Southeastern Conference (SEC) added both the University of Arkansas and the University of South Carolina in 1990-1991, and the Atlantic Coast Conference (ACC) added Florida State in 1991 (Perline & Stoldt, 2007; Quirk, 2004). According to Dennie (2012), and Siegfried and Garnder-Burba (2004), the formation of the Big 12 Conference in 1996, which houses a number of historical college football and men's basketball powers such as the University of Kansas, Oklahoma State University, the University of Oklahoma, and the University of Texas, was a form of realignment in itself. The former Big Eight Conference and the former Southwest Conference merged in part due to television broadcast issues concerning Southern Methodist University (SMU), who had been handed the death penalty by the NCAA for repeated rules violations, preventing them from appearing on televised contests. SMU, and many of the current Big 12 Conference schools, was a member of the Southwest Conference.

Conference membership across the NCAA Division-I landscape remained generally stable from 1996 into the 21st century outside of minor membership changes in lower profile conferences such as the Western Athletic Conference and the Mountain West Conference (Quirk, 2004). Ironically, this lack of mobility may have served as the harbinger for the next wave of realignment in the early portion of the 21st century. This

second wave of modern conference realignment spanned from 2003-2005 and is addressed below.

Second wave of modern conference realignment. By 2003, another wave of realignment began to take shape. Illustrative of this era, the ACC expanded to include Boston College, the University of Miami, and Virginia Tech from the Big East Conference (Groza, 2010). This forced the Big East Conference to not only find members to replace the outgoing schools but offered it an opportunity to expand as it invited the University of Louisville, the University of Cincinnati, the University of South Florida, Marquette University, and DePaul University from Conference USA (Dennie, 2012) and the University of Connecticut was invited to become a full Big East member. The Big East's realignment at the expense of Conference USA (C-USA) prompted C-USA to also replace and expand membership, resulting in its second major shift in affiliation since the 1996 merger with the Metro Conference and Great West Conference (Dennie, 2012; Quirk, 2004). C-USA would gain new membership from the Mid-American Conference and the Western Athletic Conference, in turn; new member institutions joined the Western Athletic Conference from the Sun Belt Conference. Similarly, the Sun Belt Conference added membership from the Football Championship Subdivision of the NCAA's Division-I structure (Covell & Barr, 2010; Quirk, 2004).

Despite the level of mobility described during this second wave of modern conference realignment which, overall, involved about half of NCAA Division-I conferences and dozens of member institutions, the third wave of modern conference realignment was more volatile in terms of mobility. As in the period between 1996 and 2003, membership remained relatively stable across the NCAA Division-I landscape,

particularly among higher profile institutions and conferences between 2005 and 2010. A key development in this interim period was the Big Ten Conference's (Big Ten) launch of its shared television network with Fox Sports in 2007 (Covell & Barr, 2010).

As part of the process to further solidify the Big Ten Network, the conference made arrangements with the University of Nebraska which would leave the Big 12 to join the Big Ten (Dennie, 2013). The University of Nebraska was a founding member of the Big 12 in 1996 and was a founding member of the Big 12's predecessor, the Big Eight Conference, which was formed in 1907 (Dennie, 2013; Quirk, 2004). Scholars and practitioners such as Covell and Barr (2010), Dennie (2013), and Mandel (2012) identify this particular case as the catalyst for the third wave of modern conference realignment as outlined below.

Third wave of modern conference realignment. Before the third wave of conference realignment commenced, Covell and Barr (2010) indicated that growing overall conference revenues, revenue from television for football and men's basketball, and geography may influence conference realignment. They further noted that the Big Ten, the Mountain West Conference (Mountain West), the then Pacific-10 Conference and the Western Athletic Conference (WAC) would witness realignment (Covell & Barr, 2010). This in fact occurred officially in 2011 for both the Big Ten and what is now the Pacific-12 Conference. The Mountain West realigned in 2011, 2012, and 2013 while the WAC did so in 2012 and 2013 (Mandel, 2012, Havard & Eddy, 2013). Overall during this wave of conference realignment, all but one of the 32 NCAA Division-I conferences, the Ivy League, has witnessed member institutions change conference affiliations or announce imminent plans to do so (Dennie, 2013; Mandel, 2012). A number of

researchers have addressed various incentives which may influence institutions to engage in realignment. The next section will detail these incentives.

Incentives to Engage in Conference Realignment

A thorough review of scholarly literature on the topics of institutional ambitions, athletic conferences, and the role of intercollegiate athletics produced nearly three dozen indicators central to athletic conference membership. Themes that emerged from these indicators guided the conceptualization of seven factors which may incentivize institutions to change athletic conference affiliation. These factors include Competitive Balance, Revenue, Exposure, Athletic Prestige, Academic Prestige, Team Travel, and Alumni (Fan) Proximity. Each is addressed below including the definition of each factor and the rationale in conceptualizing each factor.

Competitive balance. Competitive Balance refers to the equity among institutions within a conference in regard to athletic competition, facilities and amenities, and finances to support athletic programs. This factor is comprised of indicators identified in the literature related to parity and equity across the conference. These indicators include parity in access to post-season play, parity in win totals, comparable facilities and amenities, and intra-conference competition.

Assuring that parity exists among member institutions within a conference is a concern for conference leadership. Rhoads (2004) indicates that individual conferences, at the behest of member institutions' leadership, take the lead in conference realignment to assure competitive balance. According to Suggs (2004) competitive balance affords conferences opportunities to build, or maintain a reputation of strength in intercollegiate

athletics. Perline and Stoldt (2007) also examined the issue of competitive balance in their analysis of the Big 12 football conference. In their study, they present conference realignment as being fueled by balance within the conference as measured by wins and league championships. A level playing field, they state, can lead to fan interest and other associated benefits such as favorable perception of the conference.

Despite the assurance of parity, unintended consequences exist. Eckard (1998), Quirk (2004), and Rhoads (2004) regard the National Collegiate Athletic Association (NCAA) as cartel-like in nature. Cartel behavior, which allows for members to draft and implement rules to govern themselves, manifests its self in an effort for the NCAA to ensure competitive balance (Eckard, 1998). For instance, consider that the NCAA places a restriction on the number of scholarship student-athletes a team may field. In practice, the intention is to create parity across the landscape of intercollegiate athletics (Sutter & Winkler, 2003). However, unintended consequences of ensuring competitive balance may exist such as inequitable enforcement among the historically strong NCAA athletic programs and those who have not experienced as much success (Quirk, 2004).

Quirk (2004) contends that rather than providing parity and long-term stability for conferences, the NCAA's role results in conference instability due to the fact that a team or teams may be excelling within the conference at a level which has outpaced members experiencing less success. Historically high or low achievers face certain internal and external pressures to leave a conference which results in increased competitive balance for the members of the old conference and the member(s) that defected once arriving in a stronger conference (Quirk, 2004).

The notion of conferences as the holders of competitive balance was validated in part when Boston College, the University of Miami, and Virginia Tech left the Big East for the Atlantic Coast Conference (ACC) in 2004 and 2005. In football, these teams represented a historical dominance at the top of the Big East according to the Sagarin Ratings (Groza, 2010). In the case of the low achiever, Temple University (Temple) was voted out of the Big East by the remaining member institutions in the 2004-2005 year as it failed to meet certain performance criteria as established by the conference (Blaudschun, 2005; Dennie, 2012). Temple has since been invited and accepted an invitation to join the American Athletic Conference as of 2013 (Mandel, 2012). Covell and Barr (2010) also discuss a chief role of the athletic conference as ensuring competition within the group. Issues of competitive balance are not relegated to only between the lines of play, they are also apparent in member institutions' finances.

In discussing conference member characteristics, Quirk (2004) points to the financial make up of conference members as a determinant in some conference wide decision making. Sutter and Winkler (2003) identify financial resources as having the ability to assist in leveling the playing field amongst competing institutions in regard to recruiting student-athletes, capital construction, and attracting coaches.

In summation, member institutions and their conferences play a role in achieving parity and equity as there are far reaching implications in doing so. The indicators which comprise the conceptualized Competitive Balance factor include parity in post-season access, parity in win totals, comparable facilities and amenities, and intra-conference competition. Conceptually, Competitive Balance may incentivize an institution's change in athletic conference affiliation. Opportunities for increased revenue may also

incentivize an institution to change athletic conference affiliation. Revenue is the next factor addressed.

Revenue. Revenue refers to money coming into member institutions by way of association with a particular conference in the form of game guarantees, attendance, and conference wide agreements with external constituents. Quirk (2004) and Sutter and Winkler (2003) have each identified financial resources as a determinant to institutional and conference decision making and attracting resources that will assist in creating parity among competing institutions.

A key source of financial resources for conference member institutions exists through television broadcast rights negotiated by the conference on behalf of its members (Covell & Barr, 2010). Dennie (2012), Eckard (1998), Groza (2010), Perline & Stoldt (2007), Quirk (2004), Rhoads (2004), Sutter & Winkler (2003), Sweitzer (2009), and Tucker (2005) all support that revenue derived from conference television broadcast rights agreements are a healthy avenue for financial resources. Additional sources of revenue related to athletic conferences include participation in postseason play, most notably through the NCAA basketball tournament as well as conference championship games and bowl games in the NCAA Division-I Football Bowl Subdivision (FBS). For example, when the Atlantic Coast Conference (ACC) expanded between 2003 and 2005, it brought ACC membership to 12 institutions, thus allowing for the creation of a conference football championship game per NCAA regulations. At the time, the game was regarded as generating as much as \$12 million for the conference (Suggs, 2004).

Groza (2010) indicates that those institutions at the top-end of the NCAA Division-I FBS garner lofty revenue through their participation in Bowl Championship Series (BCS) post-season play. Sweitzer (2009) supports this in stating that institutions affiliated with BCS conferences “are the wealthiest in intercollegiate athletics” (p. 60). Similarly, BCS conference affiliation gave institutions that realigned from the non-BCS affiliated Conference-USA a reason to join the BCS designated Big East Conference in 2005.

Other sources of revenue through conference affiliation exist. A number of researchers have also indicated that there is revenue to be had through competition between intra-conference members. Groza (2010) found that changes in conference affiliation positively affect game day attendance which in turn, positively impacts game day related revenue. Perline and Stoldt (2007) present various methods geared at maximizing conference revenue. They suggest that keeping fans engaged and interested may yield higher revenues. And conferences whose teams with the largest television markets that won games most often may also achieve the same outcome (Perline & Stoldt, 2007).

Researchers have identified other financial benefits related to intercollegiate athletic programs more loosely related to conference affiliation such as apparel sales and corporate sponsorship agreements (Groza, 2010), as well as donations from fans, alumni, and boosters (Frank, 2004). Carmichael (2002) indicates that most universities generate revenue through student tuition, government funding, research funding and alumni giving. Each of these areas is said to be impacted by the exposure that intercollegiate athletics programs provide (Bok, 2004; Duderstadt, 2003b Frank, 2004; Toma, 1999).

In summation, member institutions and their conferences play a role in acquiring and growing revenue. The indicators which comprise the conceptualized Revenue factor include game/event attendance, post-season participation, television broadcast rights revenue, ticket sales/seating, and other revenue such as licensing, corporate sponsorships, and donations. In concept, Revenue may incentivize an institution's change in athletic conference affiliation. Opportunities for increased exposure may also incentivize an institution to change athletic conference affiliation. Exposure is the next factor addressed.

Exposure. Exposure refers to the reach and ability to engage new and emerging markets for the purposes of drawing attention to a member institution and/or conference. This is inclusive of being endeared to new segments such as potential students, faculty members, the overall reputation of the member institution and/or conference, and brand development of member institution and/or conference.

Toma (1999) indicates that universities devote a great deal of resources towards promoting a positive identity to several external constituents. He, along with Bok (2004) and other researchers have equated a university's intercollegiate athletic programs as the main portal for which external constituents gain a glimpse and connection to the university at large. Specifically, the high profile spectator sports of football and men's basketball generate large sums of revenue, help to establish an identity with those outside the university, and are critical in gaining support (Toma, 1999).

Television and media exposure appear to be an important component in conference realignment decisions, as a great deal of this exposure is associated with television and media rights contracts through an institution's athletic conference. This

provides the opportunity for member institutions to present themselves to new and emerging markets (Perline & Stoldt, 2007) which may help to attract top faculty (Carmichael, 2002; Sweitzer, 2009) and students (Carmichael, 2002; Groza, 2010; Sutter & Winkler, 2003; Sweitzer, 2009; Tucker, 2004; Tucker, 2005). Much of this exposure can be attributed to the impact football holds for institutions, particularly successful football programs (Groza, 2010).

There is also a level of exposure associated with quality athletic programs. For example, successful and competitive football programs provide a number of benefits to the institution and conference. When showcased, the sport serves as a promotional vehicle for the university with the capability to increase the quality of applicants in as little as five years (Groza, 2010). Successful football programs can also be linked to an increase in financial contributions to athletics (Frank, 2004). Campbell, Rogers, and Finney (2007) found that television exposure for college football teams is significant to their subsequent rankings in the Associated Press Top 25 college football rankings, which may help to perpetuate exposure and also contribute to the procurement of additional benefits. These benefits may include increased ticket sales and an increase in revenues associated with game-day attendance (Fort & Quirk, 1999; Groza 2010; Quirk, 2004; Sweitzer 2009).

Fisher (2009) also identifies benefits that may be realized by an institution as a result of athletic prosperity. This phenomenon, known as the “Flutie Effect” was coined in the 1980’s as a reference to the success of Boston College football and its quarterback, Doug Flutie. The success of both player and program came to a crescendo over Thanksgiving weekend in 1984 in which Boston College defeated the University of

Miami during a televised broadcast. Subsequent admissions applications rose by approximately 25% with the institution citing the football team's performance as a major catalyst (Fisher, 2009). The overall exposure of the institution to potential employees, students, fans, alumni, and other groups may assist in building the brand and profile of the institution locally, regionally, nationally, and internationally (Carmichael, 2002; Groza, 2010; Sweitzer, 2009; Toma 1999). This exposure may also have an effect on the academic reputation of member institutions and, by extension, the academic reputation of the conference.

In summation, member institutions and their conferences play a role in achieving and growing a level of exposure. The indicators which comprise the conceptualized Exposure factor include endearing of self to new markets, potential faculty and students; enhancing the organizations' reputation, and developing the organizations' brand. In concept, Exposure may incentivize an institution's change in athletic conference affiliation. Opportunities to be associated with a quality conference in regard to athletic pursuits may also incentivize an institution to change athletic conference affiliation. Athletic Prestige is the next factor addressed.

Athletic prestige. Athletic Prestige refers to the overall athletic profile of an athletic conference derived from the composition of its members. This is inclusive of quality of membership, overall wins, overall championships, inter-conference comparisons, and membership stability. Institutions may strive to align themselves with other institutions that fit a similar athletic profile and to that end, conferences with a quality reputation derived from the quality of its members may accentuate the individual

game importance and attendance, and provide leverage during post-season and television/media broadcast rights negotiations (Groza, 2010; Price & Sen, 2003).

Groza (2010) indicates the monopolistic nature of intercollegiate athletics places a premium on the dollar figure associated with certain conference affiliations. In this sense, conference realignment may be as much about prudent goals and affiliations as it is the long-term financial security provided. Sweitzer (2009) and Groza (2010) cite changes in conference affiliation as providing certain institutional benefits. For example, a favorable perception of an institution's athletic programs may be generated through an athletic conference affiliation. Sweitzer (2009) specifically highlights Boston College's move from the Big East Conference to the Atlantic Coast Conference in 2005 in this regard.

Quirk (2004) contends that conference members should maintain similar drawing potential and that, historically, those conferences whose members experienced a wide disparity in drawing potential lead to conference instability. This speaks to the implications of quality and attractive membership for a conference's long-term stability. Groza (2010) indicates changes in conference affiliation naturally impact scheduling and, in a study of the football programs of institutions that realigned at the beginning of this century, he found the following:

The on-field strength of the opposition, as well as the tradition of the opposition greatly improved after teams changed conference affiliation. On average, the teams that changed conferences improved their schedules by three Sagarin Rating points (roughly 5%) and on average played teams that appeared in three more bowl games than compared to the teams they

played before the change (p. 524).

Quality of conference as derived from strength of schedule and bowl game participation has implications which may affect revenue opportunities from television/media broadcast rights, game attendance, exposure, and fan interest for conference members (Carmichael, 2002; Eckard, 1998; Groza, 2010; Perline & Stoldt, 2007; Rhoads, 2004; Sutter & Winkler, 2003; Sweitzer, 2009; Tucker, 2004; Tucker, 2005; Toma, 1999).

Quality of a conference may serve as a suitable measure to differentiate between various conferences. Quirk (2004) outlines a number of indicators which serve as measures of comparison between different conferences such as membership tenure, size of conference and conference championships won. Utilized in aggregate fashion, this helps to inform inter-conference comparisons of quality. Groza (2010) indicates that winning percentage (i.e. wins) is a key detriment in assessing conference quality.

Although a particular team's intra-conference winning percentage may be high, this may be due to the overall weakness of a conference (Groza, 2010). Ostensibly, the opposite may be true. Groza (2010) also applies the Sagarin Rating which is "a well-respected objective rating system" (p. 523) utilized in college athletics which accounts for variables such as opponent strength and presumed home-venue advantage. This, again, helps to inform inter-conference comparison in terms of quality. Sutter and Winkler (2003) write of the effects of a team's traditionally high winning percentage, the size of a conference, and of the accumulation of conference titles may have on the perception of athletic program(s) including student-athlete recruitment, parity, and overall quality. Perline and Stoldt (2007) highlight the implications of a quality conference in highlighting the Big 12 Conference:

Big 12 football teams have enjoyed considerable success at the national level. The conference has placed a team in the BCS national championship game five times, more than any other conference (Big 12, 2006). Further, three teams have won national championships since the conference was founded: Nebraska in 1997, Oklahoma in 2000, and Texas in 2005 (The Big 12 Conference, para. 4)

Student-athletes serve as the center of athletic competition as they are the participants in games and events. In fact college athletics has its roots as informal meeting groups for students to gather and compete to escape from the rigors of academia (Covell & Barr, 2010).

In summation, member institutions and their conferences play a role in shaping the overall athletics profile. The indicators which comprise the conceptualized Athletic Prestige factor include quality of membership, overall wins, overall championships, inter-conference comparisons, and stability of membership. In concept, Athletic Prestige may incentivize an institution's change in athletic conference affiliation. Opportunities to be associated with a quality conference in regard to academic pursuits may also incentivize an institution to change athletic conference affiliation. Academic Prestige is the next factor addressed.

Academic prestige. Academic Prestige refers to the overall academic profile of an athletic conference derived from the composition of its members. This is inclusive of the academic profiles of member institutions, the influence of the conference's academic reputation on member institutions, the influence of member institutions' academic

reputation on the conference, student demand for admissions, and faculty demand for employment.

Groza (2010) indicates that one of the defining characteristics of an athletic conference is the collective academic profile of its member institutions. Shulman and Bowen (2002) underscore this point in outlining the initial formation of athletic conferences and how this criterion has persisted. For instance, the Ivy League imposed an academic regulation which did not allow for a relaxed set of admission standards for its student-athletes compared to the general student body, despite actions to the contrary across other competing institutions and athletic conferences (Shulman & Bowen, 2002).

Sweitzer (2009) indicates that competition with institutions similar in academic profile may serve as a motivating factor for an institution to change conference affiliation. In his study on university ambitions, he cites the president of the University of South Florida, an institution which joined the Big East Conference from Conference USA in 2005, as stating that the university's change in conference affiliation was aimed at achieving strategic institutional priorities, in part related to academics:

The [Big East members] are universities that will be solid university partners over the next decades... our affiliation with them will advance our brand as a national research university. Academically and athletically, it's strategic positioning (as cited in Sweitzer, 2009, p.61).

The University of South Florida's president also stated:

It's clear to me that if we were to join the Big East, we would be in the company of universities that represent who we are and who we aspire to be. . . . They

are institutions that have values and commitments to excellence in academics as well as athletics (as cited in Sweiter, 2009, p.61).

To these points, a level of academic excellence may influence an institution to align its ambitions with a particular conference. The prestige of being associated with, or regarded as a top research institution may yield an increase in the quality of faculty or students at the institution (Carmichael, 2002).

Carmichael (2002) also indicates that a measure of academic prestige may be student demand as well as the selectivity in student admissions. Other benefits that have been associated with conference affiliation include the boost to an institution's overall profile in the state, region, or country as compared against similar institutions (Sweitzer, 2009). Shulman and Bowen (2002) note that in the event in which academically prestigious conferences admit powerful athletic institutions with lesser academic profiles, incumbent institutions may struggle to adapt to their new members due to historically high academic standards and limited athletic resources. In a similar vein, member institutions' academic profiles may influence the overall academic profile of the conference (Carmichael, 2002; Sweitzer, 2009).

In summation, member institutions play a role in shaping the overall academic profile of the conference. The indicators which comprise the conceptualized Academic Prestige factor include the academic profiles of member institutions, the influence of the conference's academic reputation on member institutions, the influence of member institutions' academic reputation on the conference, student demand for admissions, and faculty demand for employment. In concept, Academic Prestige may incentivize an institution's change in athletic conference affiliation. Opportunities to be associated with

a regionally homogeneous conference may also incentivize an institution to change athletic conference affiliation which is why Team Travel is the next factor addressed.

Team travel. Team Travel refers to the geographic footprint an athletic conference occupies in regard to member institutions and intra-conference competition. The indicators which comprise this factor of regional proximity among member institutions, scheduling of games and events, student-athlete concerns such as missed class time due to travel for competition, and team rivalries.

The presence of an institution within a state and across state lines may serve as motivation for aligning with a particular conference according to Sweitzer (2009). The desire to compete against those intuitions within a certain regional proximity serves to recruit students, faculty, and public investment. This geographic competition produces a certain level of pride for the victor within its state and against its neighboring opponents (Sweitzer, 2009). Perline and Stoldt (2007) indicate that when the Big 12 Conference (Big 12) was formed in 1995, one of the considerations was the regional geographic footprint its members would cover. Its founding members of Baylor University, the University of Colorado, Iowa State University, the University of Kansas, Kansas State University, the University of Missouri, the University of Nebraska, the University of Oklahoma, Oklahoma State University, the University of Texas, Texas A and M University, and Texas Tech University almost exclusively spanned the Southern plains of the United States.

Historically, conferences have maintained regional homogeneity among membership (Covell & Barr, 2010; Sweitzer, 2009). For example, the Pacific-12

Conference (Pac-12) has maintained a presence on the West Coast of the United States, the Big Ten Conference (Big Ten) has been true to its Midwestern roots, the Atlantic Coast Conference (ACC) maintains membership among America's Eastern seaboard, and the Southeastern Conference (SEC) maintains membership in the Southern United States. Due to recent realignment, these conferences include membership outside of their traditional geographic footprints. The Pac-12 has expanded into the Rocky Mountain area to include the University of Colorado and the University of Utah. The Big Ten recently expanded into the Plains to include the University of Nebraska and will expand eastward in 2014 to include the University of Maryland and Rutgers University. The ACC, which will lose the University of Maryland to the Big Ten in 2014, now includes the University of Notre Dame on a limited basis, the University of Pittsburgh, and Syracuse University (Mandel, 2012).

The ACC's inclusion of the University of Pittsburgh and Syracuse University occurred approximately 10 years after the ACC expanded into the Northeast United States to include Boston College, expanded to its southernmost point to include the University of Miami, and strengthened its presence on the Eastern seaboard to include Virginia Tech (Blaudschun, 2005). In 2014, the ACC will also gain the University of Louisville. The SEC also expanded recently in 2012 to hold membership in the Midwest/Southern plains with the University of Missouri and into Texas to claim Texas A and M University (Mandel, 2012).

The regional proximity is supported by the original ideals of athletic conferences which included institutions with similar profiles and interests who were close in proximity (Covell & Barr, 2010). This proximity naturally played a role in traveling to

scheduled conference competition as like-minded institutions competed against each other to claim superiority within the region and across state lines (Dennie, 2012; Sweitzer, 2009). This has helped to create and maintain rivalries. Havard and Eddy (2013) indicate that one of the aspects which define rivalry in sports is proximity of opponents. They go on to indicate that most rivalries in intercollegiate athletics involve teams from the same conference, in the same state, across state lines, or within a particular region. As it relates to conference realignment, their findings indicate “rivalry was identified as the core category, along with three supporting categories; derogation of the rival, life cycle of the rivalry, and replacing the rivalry” (p. 216). Price and Sen (2003) suggest that rivalry between institutions competing in football influences demand but that conference rivalry does not necessarily affect demand in all sports.

There appears to be a gap in the literature as it pertains to student-athlete concerns directly related to conference realignment. Hoffman (2010) and Pent, Grappendorf, and Henderson (2007) explicitly state that student-athlete concerns are chief among the role of the senior woman administrator role. Of course student-athletes are the individuals who compete and travel to competition often times during the school week which may result in missed class time.

Issues related to scheduling of games and events are a consideration for member institutions and their conferences. Duderstadt (2003a) touches on this point in highlighting how the demands of regional and national television schedules in men’s college basketball dictate team scheduling, particularly within the conference. Duderstadt (2003a) also indicates postseason, conference tournament games take precedence over conference regular season games in men’s college basketball and that most men’s teams

schedule the preconference/out-of-conference schedule to be as easy as possible to better integrate their intense intra-conference schedule. Groza (2010) highlights one of the major effects of conference realignment as change in scheduling, as a new conference means new opponents. This, in turn, affects strength of schedule which, in his study, tended to increase by 5%. Scheduling of games and events may also serve as a mechanism for member institutions and conferences to reach specific constituents (Blaudschun, 2005; Bok, 2004).

In summation, member institutions and their conferences play a role in shaping a geographic footprint. The indicators which comprise the conceptualized Team Travel factor include regional proximity among member institutions, scheduling of games and events, student-athlete concerns such as missed class time due to travel for competition, and team rivalries. In concept, Team Travel may incentivize an institution's change in athletic conference affiliation. Opportunities to be associated with a regionally appropriate conference to connect with alumni and fans may also incentivize an institution to change athletic conference affiliation therefore, Alumni (Fan) Proximity is the next factor addressed.

Alumni (fan) proximity. Alumni (Fan) Proximity refers to the geographic footprint an athletic conference claims in regard to alumni, fans, and boosters associated with particular member institutions within the conference. The indicators which comprise this factor are attendance, donations, brand building, connection with fan bases, and other support (i.e. government or indirect).

It appears imperative that member institutions and their conference maintain a connection with key constituents. Institutions that occupy a particular geographic region but claim strong alumni bases in other regions may seek to join athletic conferences that will provide a bridge to the voided geographic location, while the same may be true for conferences attempting to further their reach with their member institutions' graduates (Blaudschun, 2005). To this end, research identifies the ability of athletic programs to maintain a bond with alumni (Bok, 2004; Flowers, 2007; Toma, 1999). This connection helps to reaffirm a sense of community among alumni members as well as serve as an avenue for them to make financial contributions towards the university and/or its athletic programs (Carmichael, 2002; Flowers, 2007; Frank, 2004; Sutter & Winkler, 2003; Tucker, 2004).

Intercollegiate athletics serves as a highly visible component of higher education institutions. Toma (1999) and others have highlighted intercollegiate athletics as the front porch of a university. That is, intercollegiate athletics serve as an access point to draw people to the university and connect with the university either as a donor or a fan. Typically, the high profile spectator sports of football and men's basketball help fans to identify personally with the institution and/or its athletic programs (Toma, 1999). One of the most notable areas in which this brand building is measured is through game attendance (Groza, 2010; Price & Sen, 2003; Sweitzer, 2009). Fans typically pay for tickets, concessions, and parking when attending games and may also purchase licensed university products such as hats and t-shirts on game day. The revenue associated with these licensed products also supports the institution and its athletic programs.

Intercollegiate athletics also provide exposure to other key constituents. Toma (1999) indicates among the chief external constituents intercollegiate athletics appeals to, one group is state legislators. He notes that government officials often have a vested interest in athletics either as a platform for “bragging rights” for their state and/or state’s flagship institution or as a forum to highlight their political interests. Often times, this exposure and connection may help institutions receive government support in terms of state funding and research funding (Frank, 2004; Carmichael, 2002; Perline & Stoldt, 2007; Toma, 1999). Carmichael (2002) and Frank (2004) highlight intangible support derived from the perception of external constituents and the indirect benefits associated with winning athletic programs such as marginal alumni donations as well as application fees and student tuition derived from marginal prospective student applications (and subsequent student enrollment).

In summation, member institutions and their conferences play a role in shaping a geographic footprint to connect with constituents. The indicators which comprise the conceptualized Alumni (Fan) Proximity factor include attendance, donations, brand building, connection with fan bases, and other support (i.e. government or indirect). In concept, Alumni (fan) Proximity may incentivize an institution’s change in athletic conference affiliation. In the context of this study, these factors may be evaluated by institutional decision makers when evaluating their institution’s conference affiliation. A review of the institutional decision makers who may be stakeholders in the conference realignment process is addressed in the following section.

Institutional Decisions Related to Intercollegiate Athletics

A decision to change conference affiliation is not done unilaterally. University presidents are charged with the oversight of their institution including the institution's athletic program (Covell & Barr, 2010; Duderstadt, 2003a; Duderstadt, 2003b; Duderstadt, 2003c; Flowers, 2007; Frey, 1987; KCIA, 1991; NCAA, 1996; NCAA, 2013). President's cede a certain degree of autonomy over athletic programs to their athletic directors (Duderstadt, 2003a; Duderstadt, 2003b; Duderstadt, 2003c), senior woman administrators (Hoffman, 2010; NCAA, 2013; Pent, Grappendorf, & Henderson, 2007), and faculty athletic representatives (Duderstadt, 2003a, Duderstadt, 2003b, Duderstadt, 2003c; Frey, 1987, NCAA, 2013). Not all of these individuals hold the final decision to change conference affiliations but they certainly play a role in the process as athletic directors hold day-to-day oversight over athletic programs (Covell & Barr, 2010; Duderstadt, 2003a, Duderstadt, 2003b, Duderstadt, 2003c; NCAA, 2013) and both the senior woman administrator and the faculty athletic representative oversee aspects of student-athlete well-being (Duderstadt, 2003a; Frey, 1987; Hoffman, 2010; NCAA, 2013; Pent, Grappendorf, & Henderson, 2007). The role of each of these individuals is further addressed below.

The role of the university president. Although many university presidents do not deal directly with intercollegiate athletics, ultimately the onus of an athletic department's activities lies with the president as outlined by NCAA bylaw 2.1.1, *Responsibility of Control*:

It is the responsibility of each member institution to control its intercollegiate athletics program in compliance with the rules and regulations of the Association. The institution's president or chancellor is responsible for the administration of all aspects of the athletics program, including approval of the budget and audit of all expenditures (NCAA, 2013, p. 3).

NCAA bylaw 2.1.2, *Scope of Responsibility*, further outlines the role and responsibility of the university president in regard to athletic oversight:

The institution's responsibility for the conduct of its intercollegiate athletics program includes responsibility for the actions of its staff members and for the actions of any other individual or organization engaged in activities promoting the athletics interests of the institution (NCAA, 2013, p.3).

University presidents have not historically had the task of direct oversight of athletic program operations. After a wave of scandals, particularly in the 1970s and 1980s that compromised athletic program reputations and the image of higher education institutions that housed them, the Knight Commission on Intercollegiate Athletics (KCIA) released a report, *Keeping Faith with the Student-Athlete* (1991), which outlined a number of procedures to legitimize intercollegiate athletics. The proposed procedures called for a university president to have direct authority over athletics in regard to academic integrity, financial integrity and independent certification. The report served as the impetus for the NCAA to reform regulations and practices, and most importantly, the adoption of these policies resulted in structural changes requiring direct presidential oversight (KCIA, 1991).

The president of a university is in a unique position. On one hand, she is tasked with championing her institution's academic goals and mission, advancing the school's interests, creating visibility, and generating and managing revenue from a number of different sources (Bok, 2004; Flowers, 2007). One particular avenue unique to higher education which accomplishes each of these tasks is intercollegiate athletics. Ironically enough, it is these sets of tasks accomplished by athletics which may leave a president "trapped in a powerless system" (Bok, 2004, pg. 87). For example, scholars such as Bok (2004), Duderstadt (2003a), Flowers (2007), and Shulman and Bowen (2002) indicate presidents have historically had concerns about the impact of athletics on their campuses. Much of this concern stemmed from the perceived marginalization of academics at the hands of athletics as well as faculty concerns regarding academic integrity.

Bok (2004) indicates that a president may have difficulty defending athletics when, ostensibly, it compromises academics. Frey (1987) states "general discussions, as well as research investigations, tend to conclude that the president's role calls for superhuman abilities" (pg. 171). This may best be illustrated by the events which occurred at the University of Michigan in the early 1900s. When the school's president decided to implement rules and regulations outlining academic and athletic standards, head football coach Fielding H. Yost, went to the University's Board of Trustees to have the school successfully disassociate itself with the Big Ten Conference so that such rules could not be enforced against the institution (Duderstadt, 2003a; Flowers, 2007).

Other instances of presidential attempts to curtail athletics include the 1946 secession of the University of Chicago from the Big Ten Conference in what was the culmination of President Robert Hutchins' de-emphasis of big-time college athletics

(Duderstadt, 2003a). This move coincided with the growth of football and men's basketball and was similarly replicated when the Ivy League also de-emphasized its athletic programs in favor of academics (Duderstadt, 2003a).

As noted, intercollegiate athletics help to connect external constituents with the university at large (Bok, 2004; Toma, 1999). In addition to normal duties and responsibilities associated with a university presidency, it may be futile for a president to continue to wage a fight against an enterprise which arguably provides more benefits than it does negativity (Flowers, 2007). With such exposure, sponsoring intercollegiate athletics also runs the risk of damage to a university's reputation through athletics related scandals and rules violation. To this point, "lack of institutional control" is considered as the most severe athletics related charge the National Collegiate Athletic Association (NCAA) may levy against an institution (Duderstadt, 2003b). According to the NCAA (2013), lack of institutional control is considered a Level-I Severe Breach of Conduct defined as:

The control and responsibility for the conduct of intercollegiate athletics shall be exercised by the institution itself and by the conference(s), if any, of which it is a member. Administrative control or faculty control, or a combination of the two, shall constitute institutional control (NCAA, 2013, p. 41).

Therefore, any actions on the part of the university that do not adhere to this standard would be deemed by the NCAA as a lack of institutional control.

The president's role as the institution's Chief Executive Officer in relation to institutional control, or lack thereof, is complicated by the various relationships with constituent groups and subordinates in which she engages. For example, as illustrated previously, it is not unimaginable for institutional governing boards to intercede with the president's authority. In fact, Duderstadt (2003b) points out that many board members seek their position due to the access it provides them with athletics. Additionally, presidents may be unwilling or unable to control rogue fans and alumni whose unmandated involvement with athletics may tarnish the institution (Duderstadt, 2003b). Duderstadt (2003b) suggests that in order to ensure that institutional control is not violated; all parties involved with an institution's athletic program must understand and accept that ultimate responsibility lies with the president. Notably, he also highlights a stakeholder internal to the institution who may compromise the president's authority: the athletic director. The role of the athletic director is addressed next.

The role of the athletic director. The athletic director is the head of the university's athletic department in charge of day-to-day operations including personnel decisions of coaches, administrative staff, and support staff (Duderstadt, 2003b, Duderstadt, 2003c). The athletic director is able to execute his role because oversight over athletics has been ceded to him by the president of the university. Historically, the role of the athletic director had been filled by former sports coaches who either retired from coaching to assume the position or held a dual role as coach and athletic director (Covell & Barr, 2010; Duderstadt, 2003c). More recently, as intercollegiate athletics has developed into a commercial enterprise, the role of the athletic director has evolved into one that requires a high degree of business acumen (Covell & Barr, 2010; Duderstadt,

2003a; Duderstadt, 2003b, Duderstadt, 2003c). The athletic director is now required to provide leadership, fiscal oversight, public relations, promote academic values, and maintain a good relationship with athletic boosters as well as the media (Duderstadt, 2003b).

Boosters and members of the media may be two of the most key external constituents due to their financial support and power of public persuasion, respectively. With this in mind, the relationship between athletic director and boosters, and athletic director and media may help the athletic director gain his or her own fan base often overshadowing the university itself (Duderstadt, 2003b, Duderstadt, 2003c). For instance, it is not uncommon for an athletic director's actions to go unquestioned by the university community (Duderstadt, 2003b; 2003c).

Part of this authority is derived from the athletic department's historical independence (real or perceived) from the university at large (Duderstadt, 2003c, Frey, 1987). In the event that opposition from university stakeholders such as faculty governing boards is presented, strong athletic directors can work to influence which faculty serve or do not serve on these governing bodies (Duderstadt, 2003c). To help to quell this conflict of interest, Duderstadt (2003c) suggests that athletic directors, in addition to having strong business sense, should also have experience as educational faculty or administrators so that the enterprise of college athletics does not shift too far from its academic component. Another way to ensure academics stay central to the mission is with faculty involvement. The role of the Faculty Athletic Representative is addressed below.

The role of the faculty athletic representative. The Faculty Athletic Representative (FAR) is appointed by the president of a university and plays a key role at the institutional, conference, and NCAA levels typically in regard to rules violations, academics, and student-athlete well-being. The FAR is the liaison between the athletic department and the president of the university (Duderstadt, 2003c). According to the NCAA (2013), the FAR is described as:

An individual so designated after January 12, 1989, shall be a member of the institution's faculty or an administrator who holds faculty rank and shall not hold an administrative or coaching position in the athletics department. Duties of the faculty athletics representative shall be determined by the member institution (p. 41).

The FAR also participates in normal university governance and, in addition to his role as the liaison between the president and athletics, is also the liaison between the institution and the NCAA. The FAR is in a unique position because his role requires him to work hand in hand with the athletic director, but his role as the interface between the president and athletics, as well as the institution and the NCAA, may produce an adversarial relationship with the athletic director and coaches (Duderstadt, 2003c). The FAR essentially provides an element of institutional governance and ensures that student-athlete well-being in terms of academic life is of chief priority. Another member of the athletic department structure that is tasked with student athlete well-being is the senior woman administrator. Although student-athlete well-being is a component of her role, her duties are wide ranging, but also include issues related to gender equity department wide. The role of the Senior Woman Administrator is addressed below

The role of the senior woman administrator. The NCAA (2013) outlines the senior woman administrator (SWA) as:

The highest-ranking female involved in the management of an institution's intercollegiate athletics program. An institution with a female director of athletics may designate a different female involved with the management of the member's program as a fifth representative to the NCAA governance structure (p.18).

Research conducted by Hoffman (2010), Pent, Grappendorf, and Henderson (2007), and Tiell, Dixon, and Lin (2012) indicate that the SWA position was created and further developed by the NCAA in the 1980s as a mechanism to provide gender equity in leadership, as the NCAA had recently absorbed the Association for Intercollegiate Athletics for Woman (AIAW). Although the position was established with the purest of intents to help advance women in the field; it has been argued that this byproduct is not being realized. Equally as notable is the fact that the NCAA does not define clear roles and responsibilities of the SWA. Hoffman (2010) and Pent, et al (2007) found issues of inconsistency in the tasks and roles of the SWA. According to Hoffman (2010) the inconsistencies have led to a series of issues that does nothing more than produce limitations for women seeking to move ahead in the field of intercollegiate athletics.

Pent, et al (2007) indicate that experience dealing with financial issues of the athletic department may help the person filling the SWA role to advance. This specifically involves operations, budgeting, capital projects, salaries, broadcast deals, and corporate sponsorships. The Pent, et al (2007) study found a disparity between the role the SWA is participating in and the role in which the SWA seeks to fulfill. This disparity

chiefly revolves around financial decision making, but the SWA has historically played a key role in senior management participation, group participation, management of gender equity/Title IX plans, and issues advocating for males and females. Similarly, the SWA provides advice on academic balance, reviews equity in athletics and gender equity plans, is involved in athletic fundraising, and in governance and personnel decisions (Tiell, Dixon, & Lin, 2012). The review of literature related to the SWA role is illustrative of the diversity in duties she is tasked with, but all appear central to the operations of the athletic department and student-athlete well-being. To better understand how the role of the SWA and other identified administrators is related to conference realignment, an overview of this connection is addressed in the subsequent section.

Connection to Conference Realignment

University presidents, athletic directors, SWAs, and FARs all hold oversight over intercollegiate athletics at their institution including conference realignment decisions. Not all of these individuals hold the final authority regarding the decision to realign, but they certainly play a role in the process as illustrated in the preceding sections. Through conference affiliation, member institutions may help to field quality competition between the lines of play, draw higher marginal revenues, endear themselves to new groups, elevate the quality of academic and athletic profiles, maintain regional homogeneity and rivalries, and serves as a bridge to connect with external constituents (Duderstadt, 2003c). Of course, a change in conference affiliation may also negatively impact the institution across the areas presented. If an institution realigns and leaves its former members, the old conference may be in danger of losing status within the NCAA, disbanding altogether due to lack of membership, or take the approach of fulfilling voided membership by

adding institutions from another conference (Dennie, 2012; Eckard, 1998; Quirk, 2004). This may result in a domino effect, perpetuating similar outcomes for another set of conference members.

Conference realignment may be viewed as a means with which to position a university's strategic goals related to its athletic programs. As illustrated, there are several factors which may incentivize an institution's move from one conference to another. To better understand the relationship between institutions and conferences within the context of conference realignment, principal-agent theory will be employed as a theoretical framework. The theory highlights the arrangement between two parties with aligned interests and certain factors which are a part of that relationship. Principal-agent theory is addressed in the following section.

Principal-Agent Theory

In the field of commercial law, the law of agency is outlined as one in which one individual cedes certain rights to another individual to act on their behalf. The first individual, the principal, authorizes the second individual, the agent, to negotiate contractual agreements with external third parties. The principal and the agent are also involved in a contractual agreement of their own to ensure that the interests of each are aligned and key tasks executed (Eisenhardt, 1989; Jensen & Meckling, 1976; Ross, 1973).

The law of agency, in essence, helps to set the foundation for principal-agent theory. It has been suggested that all contractual relationships pay homage to principal-agent theory to a certain extent as there are certain mitigating factors which help to accentuate the principal-agent relationship (Bebchuk & Fried, 2004). For example, the

agent party may hold information, unbeknownst to the other which may alter their mutual interests. A mechanism to help ensure that mutual interests remain aligned is incentivizing the relationship (Bebchuk & Fried, 2004; Deming, 1986; Fleisher, 1991; Mitnick & Backoff, 1984). To further explain this theory, an overview of the theory, the theory's application across common disciplines, and a useful application of the theory to athletic conference realignment in the National Collegiate Athletic Association follows.

Principal-agent theory overview. According to Fleisher (1991), principal-agent theory (PAT) has its beginning in sociological exchange theory as illustrated by Blau (1964), Emerson (1962), Hormans (1961), and Moe (1984). Fleisher further indicates that PAT has primarily been used to promote the understanding of resource exchanges vis-à-vis resource dependence. Levine and White (1961) describe an exchange as one in which two parties may affect the other's goal attainment abilities. Fleisher (1991) states that exchanges may take place between a combination of individuals or organizations, acting as principals and agents, and that particular forces dictate the way in which principals and agents interact with one another, particularly when their own interests can be addressed. In this sense, the difficulties of motivating either of the parties to act in the best interests of the other arise when, for instance, the principal has no or little assurances that the agent is acting in the principal's best interest (Bebchuk & Fried, 2004). Bebcuk and Fried (2004) indicate that the problem is exacerbated when activities related to the interests of the principal may pose burden to the agent, financial or otherwise. Fallout due to this problem may include the termination of the relationship which may negate the interests of both parties involved. Bebcuk and Fried (2004), Fleisher (1991), Mitnick and Backoff (1984) indicate that measures related to oversight and incentivizing through

compensation may help to quell the illustrated dilemma. It appears that six key components exist in regard to PAT. These components are 1) The principal, 2) The agent, 3) Asymmetric information, 4) Agency costs, 5) Slippage, and 6) Incentive (Eisenhardt, 1989). In some cases, the roles of the principal and the agent may alternate within the same relationship. The condition in which multiple principals are affiliated with a single agent exists as well. PAT is thoroughly addressed in the below.

Components of principal-agent theory. As its name implies, PAT relies on the relationship between a principal and an agent. Representing the principal, the agent's services are contracted when the principal is unable or unwilling to perform specified tasks or when the principal's cost of doing business would outweigh that of the agent's (Fleisher, 1991). With this in mind, PAT would suggest that when parties engage in an agency agreement, there is some sort of incentive in place so that interests are aligned and tasks executed (Eisenhardt, 1989; Fleisher 1991). A key component of the theory which may impact the way in which principal and agent interests align is the availability of information to the parties involved. The idea of "asymmetric information" is further detailed.

Asymmetric information. Asymmetric information may be described as an imbalance in available information in an agency relationship (Bebchuk & Fried, 2004; Fleisher, 1991; Ledyard, 2008; Wilson, 2008). This information is usually possessed by the agent and serves to tilt the balance of power in the relationship in the agent's favor. Asymmetric information is central to the PAT framework as it has the potential to alter the principal-agent relationship. Also of note are the costs associated with that relationship. An explanation of "agency costs" follows.

Agency costs. Agency costs are the costs related to the principal using an agent's services, such as procurement costs or opportunity costs, which are burdened by the principal (Bebchuk & Fried, 2004). Another component of note is "slippage". This refers to the misalignment of principal and agent interests which may be a byproduct of asymmetric information (Lane, 2008). Slippage is the next component addressed

Slippage. Although the parties in the principal-agent relationship align to address and maximize their collective interests, it is of critical concern when these interests diverge from one another. Because each party is self-motivated towards their own goal attainment, it is likely that the two do not necessarily share goals (Lane, 2008). This notion of slippage is a key concept of the principal-agent relationship. Researchers such as Eisenhardt (1989), Jensen and Meckling (1976), Lane (2008), and Ross (1973) have identified various causes of slippage. Often times, slippage is birthed out of poor organizational structure such as various chains of principals and agents (Lane, 2008). The multiple relationships may yield poor communication of principal interests relative to agent actions. Other outcomes of poor communication include lost information, too much information, and mixed information (Fleisher, 1991; Lane, 2008). Effective mechanisms may be implemented to maintain alignment of interests between the principal and the agent, in effect incentivizing the relationship (Eisenhardt, 1989; Jensen & Meckling, 1976; Lane, 2008; Ross, 1973). The incentive component is addressed next.

Incentive. Mechanisms to remedy the slippage problem include active oversight of the agent's activities in order to maintain task and efficiency (Bebchuk & Fried, 2004; Deming, 1986; Fleisher, 1991; Lane, 2008; Mitnick & Backoff, 1984). This remedy is not without its drawback as the principal may now incur costs associated with such oversight

related to finances and time, particularly when the principal is unable to differentiate between the value of the agent's various day-to-day actions (Lane, 2008). Essentially, there is a balance to be examined by the agent between oversight costs and slippage costs assuming the lesser of the two may be allowable. Closely related to slippage is "moral hazard", or the condition in which the agent utilizes information to enhance agent interests over the principal's interest (Fleisher, 1991). Even the application of incentives to the relationship may result in the agent working towards the incentive and not necessarily the stated goals and preferences of the principal (Lane, 2008). Another issue related to interest alignment per PAT is the issue of multiple principals which is addressed next.

Multiple principals. The context of principal-agent theory suggests that one principal affiliates with one agent, but scholars such as Fleisher (1991) and Lane (2008) have identified the condition in which multiple principals exist and hold agreements with a single agent. This type of relationship can be problematic as the multiple principals may be asking the lone agent to perform contrary duties, in which case the agent must decide which duties to fulfill over others (Lane, 2008). Additionally, the matter of oversight of the agent's activities to ensure proper execution of the agreement may become clouded as it is unclear if one principal or the multiple principals take this role. In the event that one principal takes this role, oversight over that principal's own interests may become paramount over the multiple principals' interests (Fleisher, 1991; Lane, 2008). Related to single principal oversight, other principals may receive the benefit of the affiliation with the agent without incurring the costs associated with oversight (Lane, 2008). Similar to

the multiple principal conditions, the case may also arise when in the principal-agent relationship where the roles of each are fluid. That is, the relationship is bi-directional.

It appears that the underlying theme of PAT is the incentive for parties to affiliate as noted. A principal would not affiliate with an agent if it did not derive some benefit and likewise for the agent. Furthermore, interests of each party may remain aligned through further or alternate incentives. The incentive theme within the PAT framework is what will assist in helping to understand the relationship between institutions and conferences within the context of conference realignment. It is now appropriate to apply PAT in a functional context. In doing so, examples are provided in which it has been used in various academic disciplines and contexts, also, specific areas are highlighted that affect the principal-agent relationship.

The link between organizations. Fleisher (1991), Olsen (1965), and Provan (1983) have applied PAT in a manner which helps to describe governance problems of interdependent organizations associated with collaborative organizations. The collaborative organization serves as the central link for all member organizations because the entity allows members to serve their own interests but also those beneficial to the group. The collaborative organization as a single entity oversees the groups' functions (Provan, 1983). Collaborative organizations are unique in that members pool their self-interests in attempts to also serve their self-interests. In collaborative organizations, interdependent principals cede autonomy over a portion of their activities to the designated agent (Provan, 1983).

Eisenhardt (1989) and Jensen and Mackling (1976) describe the principal-agent relationship as one in which the principal delegates to the agent certain tasks on the

principals' behalf, or in the case of the collaborative organization, on the behalf of multiple principals. This collaboration allows the collaborative organization to address a variety of interests on behalf of the principals. To better understand this relationship within the context posed, an examination of the perspectives of the principal and agent seem appropriate. This is addressed next.

Principal-Agent perspectives. In addition to the aforementioned asymmetric information/moral hazard/slippage problem, Fleisher (1991), Mitnick (1984), and Ross (1973) outline specific problems posed on the principal-agent relationship from the perspective of the principal which include the specification of agent behavior, compensation for agent behavior, and oversight of agent behavior. Fleisher (1991) suggests that these problems can be overcome if the principal applies resources that lead to proper agent performance, ensures congruence between principal's goals, agent behavior, and agent compensation; and independent goal achievement by the agent on behalf of the principal. Similarly, the acquisition of the agent's services may pose problems on the principal-agent relationship from the perspective of the agent.

Problems posed to the agent in the principal-agent relationship include the inability of the agent to act on behalf of the principal due to chain of communication, conflict from divergence of interests, and level of agent capability. Aldrich (1979) and Fleisher (1991) suggest that the nature of the relationship lends itself to these types of problems but problems can be navigated through agent empowerment, the alignment of both parties' preferences, and ensuring that agent's skills and abilities are equal to the task at hand. It appears that these perspectives within PAT are applicable across

disciplines. The following section contains a review of PAT applied in an interdisciplinary context.

Principal-agent perspectives in various contexts. In addition to the above explanation, principal-agent theory has been applied to a number of areas and disciplines such as corruption in medical, finance, and government sectors (Azfar, 2007; Azfar & Nelson, 2007; Olken, 2005), human resources (Baker, 2002), economics (Baker, Gibbons, & Murphy, 1994; Chevalier & Ellison, 1997; Holstrom & Milgrom, 1991; Ross, 1973), and accounting (Datar, Kulp, & Lambert, 2001; Feltham & Xie, 1994). The theory has also proven to be useful as it extends to frame some of the issues faced in American higher education such as governance (Lane, 2008; Lane & Kivisto, 2008), finance (Martin, 2011), accreditation (Borgos, 2013), and policy (Kivisto, 2007; Lane, 2008). As it pertains to intercollegiate athletics, a unique area of American higher education, there seems to be no application of PAT. An examination of athletic conference realignment among National Collegiate Athletic Association Division-I institutions utilizing the PAT framework appears appropriate.

Application of theory to NCAA conference realignment. Athletic conferences in intercollegiate athletics have played a key role dating to the late 19th century. Originally formed as a broker of rules for fair play and academic standards across member institutions, the athletic conference has evolved to include roles as the external liaison for member institutions in relations with the National Collegiate Athletic Association, negotiations with television/media broadcast partners, and conference wide corporate partnerships (Bok, 2004; Covell & Barr, 2010; Duderstadt, 2003a; Duderstadt, 2003b; Duderstadt, 2003c; Frey, 1987). Figure 2 illustrates the principal-agent

relationship as applied to conference realignment with the institution as the principal and the conference as the agent.

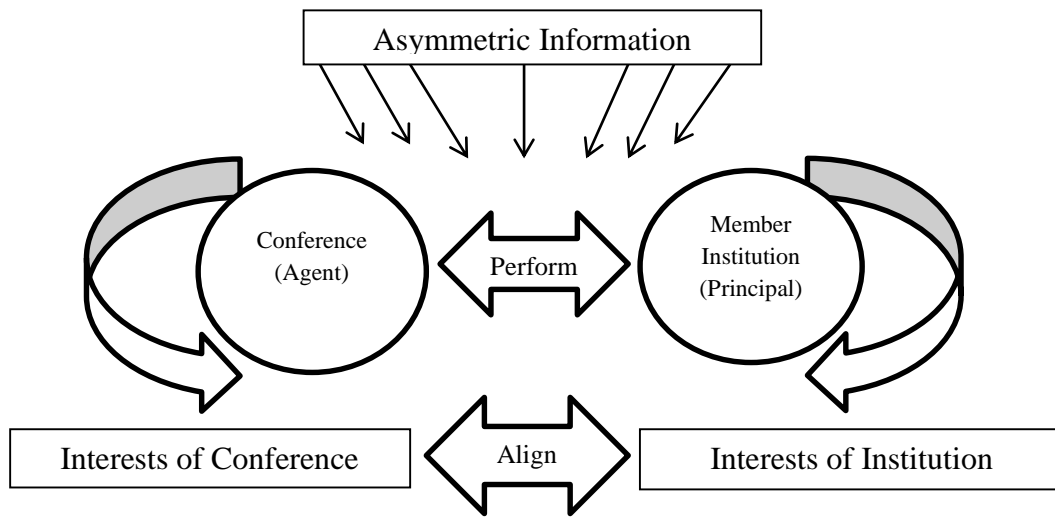


Figure 2 Conceptual Principal-Agent Model

Interdependent organizations. It is rare for individual institutions and their athletic departments to build, engage, and maintain the relationships and partnerships as identified above due to unwillingness, inability, or both (Fleisher, 1991). They will typically join an athletic conference to ensure that their interests, along with those of other member institutions are met. In this sense, the institution as the principal is incentivized to align with the conferences by way of the benefits conference affiliation can provide. As part of a comprehensive literature review, seven factors have been identified which may incentivize an institution to consider a change in athletic conference affiliation: Competitive Balance, Revenue, Exposure, Athletic Prestige, Academic Prestige, Team Travel, and Alumni (Fan) Proximity. To provide another perspective on the relationship between a member institution and a conference, collaborative organizations are explored next.

Collaborative organizations. The relationship between a member institution and an athletic conference is dichotomous to some extent. In utilizing the seven factors as outlined above, a member institution may be incentivized to join the conference because it will have its interests fulfilled. For example, an institution based in the Southern plains of the United States but holds strong constituent ties in the Midwestern United States may seek exposure in the Midwest by joining an athletic conference with a Midwest presence. This relationship is depicted in Figure 3.

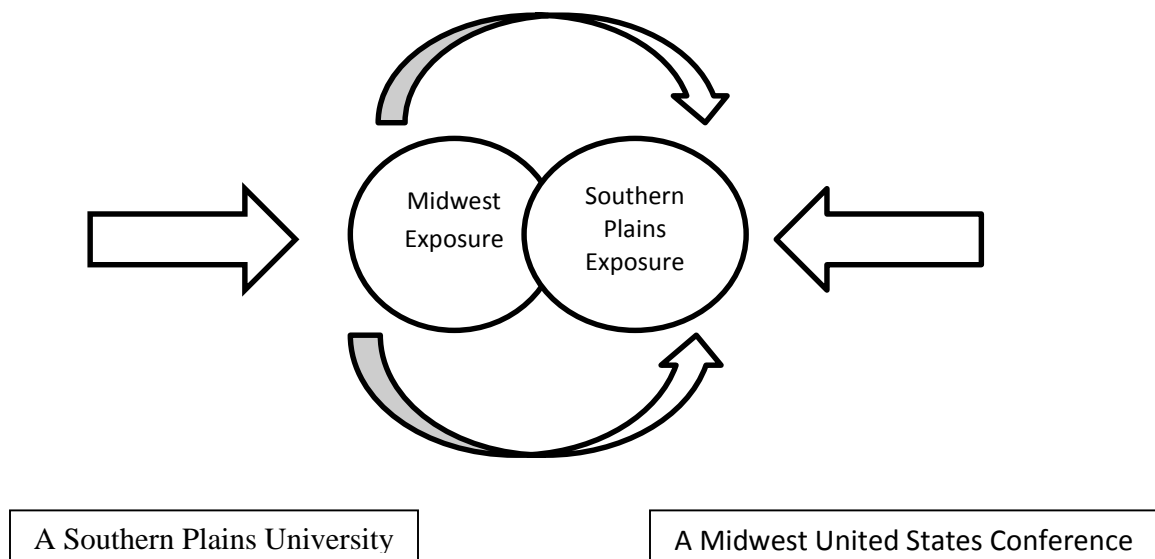


Figure 3 Conceptual Interdependent and Collaborative Organizations Model

In this regard, one can see the benefits gained by the institution and how the relationship is incentivized. It is also apparent that the relationship can become dichotomous in some cases if the conference becomes the principal rather than the agent and the institution becomes the agent rather than the principal. The relationship in which the institution is the principal and the conference is the agent provides context for PAT applied to

conference realignment in this study. The following section provides a summation of PAT.

Conclusion. PAT suggests that a principal is incentivized to affiliate with an agent to represent its interests because the principal is unwilling or unable to acquire the benefits the relationship will provide on its own. The relationship relies on the interests of both parties being in alignment but the principal is not always aware of the actions of the agent. This asymmetric information may allow the agent to compromise the relationship so that agent interests fall out of alignment with the principal's interests forcing undue burden on the principal. Incentivizing the relationship above and beyond the benefits associated with initial affiliation may help to ensure a stable and satisfactory relationship for both parties (Fleisher, 1991).

Researchers have applied PAT to a number of fields and disciplines including medicine (Azfar, n.d.), government (Olken, 2005), various areas of business (Baker, 2002; Baker, Gibbons, & Murphy, 1994; Chevalier & Ellison, 1997; Datar, Kulp, & Lambert, 2011; Feltham & Xie, 1994; Holstrom & Milgrom, 1991; Ross, 1973), and American higher education (Borgos, 2013; Kivisto, 2008; Lane & Kivisto, 2008; Martin, 2011). Research has been limited in applying the theory to issues related to intercollegiate athletics, such as conference realignment. In applying PAT to conference realignment, the relationship between the institution and the conference may be understood. A summary of the literature as presented in the next section will provide final contextualization of this study.

Summary of the Literature

Athletic conferences have historically served as collaborative organizations encompassing interdependent member institutions. A historical reference point of conferences is identified as early as 1895, the year in which the Western Conference was established (Covell & Barr, 2010; Shulman & Bowen, 2002). Conferences are unique in that member institutions join voluntarily in order to work with other member institutions as this serves as a mechanism in which to best address the interests of all members. The ability to have their interests served and represented may incentivize institutions to affiliate with a particular athletic conference. The opportunities for increased television revenue provide one example of an incentive interest served through conference affiliations, and illustrates how the conference's role has evolved. One simply needs to consider the fact that conferences were initially established to make certain academic eligibility remained at the forefront of the athletic experience and to ensure athlete safety and fair play in competitions (Covell & Barr, Shulman & Bowen; Thelin, 1996). Over time a transformation has occurred, as the role of the conference has expanded to serve as a liaison for key business endeavors engaged in by member institutions.

A decision to change conference affiliation is not done unilaterally as a number of institutional decision makers hold an interest in the outcome of realignment. These decision makers include university presidents, athletic directors, faculty athletic representatives, and senior woman administrators. As part of a comprehensive review of the literature in this area, seven factors which may incentivize NCAA Division-I institutions to affiliate with a particular conference have been identified: Competitive Balance, Exposure, Athletic Prestige, Academic Prestige, Team Travel, and Alumni

(Fan) Proximity. The factors may serve as incentive for institutional decision makers to consider changes in affiliation. If an institution is able to fulfill these indicators through realignment, and leaves its former members, the old conference may be in danger of losing status within the NCAA, disbanding altogether due to lack of membership, or take the approach of fulfilling voided membership by adding institutions from another conference. This may result in a domino effect, perpetuating similar outcomes for another set of conference members.

To better understand the relationship between institutions and conferences within the context of conference realignment, principal-agent theory is applied. The theory highlights key components of a contractual relationship between parties. For the purposes of this study, the incentive component of the theory is employed. This study seeks to understand the perceptions of university presidents, athletic directors, senior woman administrators, and faculty athletic representatives in regard to the factors that exist to incentivize an institution to consider a change in athletic conference affiliation, whether some factors are viewed by the institution as more of an incentive than others in considering a change in conference affiliation, and if perceptions vary among the identified institutional administrators in regard to incentives to change conference affiliation.

This knowledge may help scholars and practitioners in the areas of higher education and intercollegiate athletics to better understand the relationship between institutions and conferences within the context of realignment and the strategic process of conference realignment. The method for collecting and analyzing data in hope of addressing the stated goals of the study are explained in the following chapter.

CHAPTER 3

METHODOLOGY

The purpose of this study is to examine factors that serve as incentive for institutions to realign with a particular conference. Literature has identified four institutional decision makers tasked with athletics oversight that ultimately represent institutional athletics decisions. Based on the perceptions of these administrators, this study identifies factors that serve as incentive for the institution to affiliate with a particular conference. This study also examines if any factor serves as more of an incentive than others. Additionally, this study examines if responses by institutional type differ in regard to incentives to realign. Finally, this study addresses the degree to which principal-agent theory helps to understand the relationship between NCAA Division-I institutions and conferences.

A survey collected data from participants. Data were analyzed in order to assess how well survey items hold together as a homogeneous concept, to investigate factors, and to assess differences among factors and participant subgroups. The following questions guided the research.

Research Questions

RQ#1: What factors serve as incentives for an institution to consider a change in conference affiliation?

RQ#2: Do some factors serve as more of an incentive for an institution to consider a change in athletic conference affiliation than others?

RQ#3: To what degree do perceptions among institutional administrators differ in regard to incentives to change conference affiliation?

RQ#4: To what degree does principal-agent theory help to understand the relationship between NCAA Division-I institutions and conferences?

The examination of the perceptions of institutional decision makers in regard to conference realignment allows scholars and practitioners to understand what influences conference realignment decisions and what considerations are addressed during the process. This knowledge can help scholars and practitioners in the areas of higher education and intercollegiate athletics to better understand the strategic process of conference realignment. This study was executed in a meaningful manner in order to be significant to the field. Aspects of the research design and the study's execution are addressed in below. The examination of the perceptions of institutional decision makers in regard to conference realignment allows scholars and practitioners to understand what influences conference realignment decisions and what considerations are addressed during the process. This knowledge can help scholars and practitioners in the areas of higher education and intercollegiate athletics to better understand the strategic process of conference realignment. This study was executed in a meaningful manner in order to be significant to the field. Aspects of the research design and the study's execution are addressed in below.

Research Design

According to Andrew, Pederson, and McEvoy (2011), Creswell (2009), and Kachigan (1982), quantitative research is a systematic empirical approach to social science research and statistical analysis. Quantitative research is deductive in nature in that it helps to confirm descriptions, explanations, and/or predictions based on the

analysis of a set of identified variables (Kachigan, 1982). This study posed specific questions regarding factors that incentivize institutions to realign with a particular conference. Prior to this study's initiation, approval was sought and received from the University of Nevada, Las Vegas' Institutional Review Board as the study incorporated human subjects.

In order to ensure that components of this study related to data collection were valid, the process began by identifying a panel of 10 expert scholars and practitioners to assess 1) potential sample member selection and involvement, 2) the quality of survey items, and their alignment to proposed factors. Seven panel members ultimately responded which proved to be adequate as a level of saturation was reached among their responses. The panel provided feedback related to the wording of survey items such as:

"I do think there is room for greater clarity in regard to a number of the response items. Would encourage you to review each to make sure it is as concise as possible. Example: I think #5 could simply say: Member institutions have similar academic profiles" (Member 5).

Other feedback was related to types of items to include in the survey such as:

"I might suggest adding a question related to student-athlete welfare as impacted by increased travel or travel that is much farther due to conference expansion" (Member 3).

Other than changes related to wording and item-inclusion, the reviewers believed that the survey covered the most salient items related to conference realignment as illustrated by the following comments:

“I think you hit all the topics that are relevant” (Member 3).

“The survey does a nice job of covering the most relevant considerations in regard to conference membership” (Member 2).

Full feedback from the expert panel is found in Appendix A. Once all modifications suggested by the expert panel were implemented, the comprehensive study commenced.

Participants

There are currently 351 full NCAA Division-I member institutions (NCAA, 2013). The study sought participation from four institutional administrator groups; presidents, athletic directors, senior woman administrators, and faculty athletic representatives; at each institution ($N = 1,404$). The number of potential participants was assisted in achieving the statistical power needed to confirm a proposed factor structure, and produce meaningful results. The number of potential participants also provided flexibility to address issues with response rate. Comrey and Lee (1992), Kachigan (1982), and Williams, Brown, and Onsman (2010) provide recommendations to ensure an appropriate sample size for an exploratory factor analysis (EFA). These recommendations vary from $N = 5 \times p$, $N > 100$ to $N = 10 \times p$, $N > 200$. In the context of this study, 35 items, p , exist which indicated appropriate sample sizes between 175 and 350. Ultimately, 1,266 potential participants were contacted due to issues retrieving e-mail addresses. Of this number, 148 individuals participated, still in line with Comrey and Lee (1992), Kachigan (1982), and Williams, Brown, and Onsman (2010) recommendations for sample size for EFA. This is addressed in the *Procedure* section as

well as issues related to statistical power. Instrumentation for data collection is addressed next.

Instrumentation and Variables

Likert scale. A Likert scale utilizes prompts to measure a respondent's level of agreement with specific statements (Carifio & Perla, 2007). The Likert scale implemented in this study incorporated the following prompt per every five items related to incentive to realign:

“To what extent do the following considerations serve as incentive for your institution to affiliate with a particular conference?”

Situating the prompt so frequently anchored items to it and remained visually apparent to respondents. An issue to consider when employing a Likert scale is that of equidistance- or the perceived distance between each successive item category as equivalent (Carifio & Perla, 2007). The nature of the five-point Likert scale addressed this in that point number 3, is associated with a “Neutral”-type statement, allowing for symmetry of disagreement (points numbered 1-2) and agreement (points numbered 4-5). The following sections address the survey in more detail.

Likert scale survey. The 35 items which comprised the survey were based on variables identified in the relevant literature on the role of intercollegiate athletics, conference affiliation, and conference realignment as well as the incentive component of principal-agent theory. As such, these 35 items related to the theoretical seven factors addressed in this study that may serve as incentive for an institution to realign with a particular conference. These items, the literature that informed these items, and their

connection to the theoretical framework in this study are summarized in Appendix B. An additional five items captured institutional information specific to 1) Conference membership, 2) Position at the institution, 3) Sport considerations relative to realignment decisions, 4) Engagement in conference realignment, and 5) Perspectives on incentives to realign with a particular conference based on participants' position. These items are also found in Appendix B. A further description of the format of the survey is provided next.

Instrumentation format. Part one of the survey consisted of items identified through the literature as incentives which an institution may consider in realigning with a particular conference. In order to capture the essence of data relative to this study, initial instructions for participants were portrayed as follows:

“The goal of this survey is to understand to what degree factors serve as incentive for your institution to realign with a particular conference. Please articulate what your institution is doing, not relative to your own position, but what actually influenced/influences your institution to realign with a particular conference.”

The Likert scale implemented in this study assessed the extent to which agreement on 35 items related to incentives for an institution to realign with a particular athletic conference. The Likert assessment scale is illustrated below:

| | | | | |
|---------------------|----------|-----------------------|----------|-------------------------|
| <i>No incentive</i> | | <i>Some incentive</i> | | <i>Strong incentive</i> |
| <i>1</i> | <i>2</i> | <i>3</i> | <i>4</i> | <i>5</i> |

Part two of the survey requested institutional information for a total of five additional questions/items which captured needed information of the representation of the participants and produced underlying themes and characteristics of the participants.

In collecting data from participants, it is appropriate to be mindful of any inherent challenges. Andrew, Pederson, and McEvoy (2011), Creswell (2009), and Kachigan (1982) identify methodological challenges to address when implementing a survey for data collection, and specific issues with Likert scale administration: Central tendency bias and acquiescence bias. Each is addressed in succession.

Central tendency bias. Central tendency bias is described as the tendency to score items around the midpoint of the scale, while neglecting to score around the extreme points of the scale (Andrew, Pederson, & McEvoy, 2011; Creswell, 2009; Kachigan, 1982). To address central tendency bias, a forced rating method is implemented in portions of the survey forcing participants to prioritize items within the survey (i.e. rating as ‘the best’ or as ‘the worst’). Inclusion of forced ratings lends itself to the mixed questions method of avoiding central tendency. This method prescribes that mixing question types within a survey may help the participant to remain engaged when indicating item responses (Carifio & Perla, 2007). Within this survey, the mixed questions method was achieved by implementing two parts of the survey; one which is formatted as Likert type and the second which is formatted as forced ratings and open-ended. For example, a forced rating item question utilized in this study is:

“From 2010-2014, did your institution engage in conference realignment?”

An open-ended item question utilized in this study is:

“Respective to your position at your institution, are there any factors you can identify that should be assessed as part of the process of conference realignment that are not necessarily?”

Acquiescence bias. Acquiescence bias is described as the tendency for respondents to agree with all items or to indicate a positive response (Carifio & Perla, 2007). In this study, a balanced set of items reflected both negative and positive statements in an attempt to produce greater variation in responses. In order to ensure the quality of the study, measures of reliability and validity were undertaken and are addressed below.

Reliability and Validity

Prior to dissemination, the survey underwent a review by seven experts in intercollegiate athletics administration/leadership to assess validity. To assess reliability, the survey Cronbach's alpha examined internal consistency; that is, how well the items held together as a homogeneous concept. The factors in this study also underwent the Cronbach's alpha calculation to assess reliability. More detail of this process is addressed in Chapter 4.

Reliability. Reliability may be described as the extent to which a test or experiment will produce the same result(s) when repeated (Andrew, Pederson, & McEvoy, 2011; Creswell, 2009; Kachigan, 1982). Reliability is important to the extent that it helps in providing consensus among researchers and practitioners about research design, procedure, and measurements, as well as helps to infer conclusions and produce theoretical framing. A form of reliability is internal consistency. Internal consistency may be described as the extent to which a test or experiment assesses the same characteristic. In this sense it measures the precision between the measuring instruments utilized in a study (Andrew, Pederson, & McEvoy, 2011; Creswell, 2009; Kachigan, 1982).

Cronbach's alpha. Retained survey items produced a minimum alpha reliability coefficient of .70. This cut-off is deemed acceptable by experts in statistics and research (Andrew, Pederson, & McEvoy, 2011; Creswell, 2009; Kachigan, 1982). The factors in this study also underwent a Cronbach's alpha analysis to determine how well items hold together as a homogenous concept. The minimum alpha reliability coefficient of .70 again served as the cutoff for determining the reliability of each subscale. For each factor, an internal consistency analyses was conducted to determine both the initial alpha for the factor and the alpha if any one variable is deleted. Decisions regarding item retention were made with the goal of obtaining the highest possible alpha with three or more variables. Although these procedures proved to be effective in ensuring reliability, reliability alone is not sufficient to ensure quality research. Quality research must also ensure validity as is addressed next.

Validity. A tool may reliably measure a given item but not accurately measure that item. In this case it would not be valid. Andrew, Pederson, and McEvoy (2011), Kachigan (1982), and Creswell (2009) identify various types of validity. This study incorporated content and construct validity in order to ensure that the survey precisely measured participants' responses.

Content validity is described as the extent to which a measure represents all facets of a given construct while construct validity is described as the extent to which a measure actually measures what it is intended to measure (Andrew, Pederson, & McEvoy, 2011; Creswell, 2009; Kachigan, 1982). Submission of the survey to the expert panel confirmed content validity. Saturation was achieved as the experts recommended similar modifications in regard to word phrasing, clarity, and inclusion of specific aspects. The

comprehensive study commenced when suggested modifications were implemented. Once data were collected and analyzed, construct validation was assessed as addressed in chapter 4. The study is detailed in the following *Procedure* section.

Procedure

Data collection. The survey was created utilizing Qualtrics, an electronic web-based tool. Multiple sources served as the means for collecting each potential participants' email address. The chief source for e-mail collection was each school's website. Within the website, email information for presidents was generally found under "About Us", "Leadership", or "Administration" links that provided direct routes to a president's own webpage which provided contact information. If this course of action failed, the "Faculty/Staff Directory" link on the website was then accessed which allowed the researcher to search by the individual's name. If that course of action failed, access to the Higher Education Administration database was available which provides contact information for nearly all higher education administrators in the United States.

Similar steps were implemented to retrieve emails for Athletic Directors, Senior Woman Administrators, and Faculty Athletic Representatives. The chief source for e-mail collection was each school's website. Within the website, email information for these three administrators was generally found through the school's "Athletics" link. From here, an athletics staff directory was accessed which provided email information for all athletics staff. If this course of action failed, the "Faculty/Staff Directory" link on the website was then accessed which allowed a search by the individual's name. If this course of action failed, the Higher Education Administration database was accessed.

Unfortunately, all email information was not retrieved. This limitation is addressed in Chapter 5.

Of the targeted 1,404 individuals' emails, 1,266 were retrieved. Each retrievable email was recorded in a Microsoft Excel 2010 spreadsheet. Subsequently, e-mail addresses were uploaded to Qualtrics in order to administer the survey electronically. To aid in encouraging an appropriate response rate, potential participants were notified that their responses will be protected under informed consent.

Informed consent. An informed consent prompt was electronically displayed to potential participants before they were allowed to access the online survey. Informed consent alerted potential participants to potential risks and costs associated with their involvement in the research study as well as steps to ensure confidentiality (Kachigan, 1982). In this study specifically, the informed consent prompt outlined participants' voluntary agreement in the survey, purpose of the survey, expected time to complete the survey, and encouragement to participate. No compensation was provided in exchange for participation; however, it was articulated that an executive summary of study findings will be offered in order to incentivize participation. Participants were able to click a link which indicated they had read the terms of the study and agree to participate in the survey. This link allowed access to the survey. The informed consent statement is provided in Appendix D. The timeline of this study is detailed next.

Timeline. Details pertinent to this study were submitted to the University of Nevada, Las Vegas' Institutional Review Board (IRB) with which final approval arrived in March 2014. The survey was submitted to and reviewed by the expert panel beginning

in March and throughout April. Once saturation was reached and panel recommendations implemented, data collection began in late April and extended throughout the month of May which allowed approximately six weeks for participant data to be received. Data were analyzed throughout the summer concluding in August 2014, while Results and Discussion portions were authored throughout fall 2014. A more detailed description of the analysis of data in this study follows.

Data analysis. Data were analyzed utilizing four methods. Each of these methods of analysis and the research questions to which they correspond is depicted in Table 1.

Table 1

Research Questions and Analysis

| Research Question | Analysis |
|---|--|
| 1. What factors serve as incentives for an institution to consider a change in conference affiliation? | Exploratory factor analysis Cronbach's test of internal consistency |
| 2. Do some factors serve as more of an incentive for an institution to consider a change in athletic conference affiliation than others? | Paired samples t-tests |
| 3. To what degree do perceptions among institutional administrators differ in regard to incentives to change conference affiliation? | Paired samples t-tests |
| 4. To what degree does principal-agent theory (PAT) help to understand the relationship between NCAA Division-I institutions and conferences? | Dependent on results from previous research questions and determination of the applicability of PAT to those results |

Exploratory factor analysis examined factors produced in this study against theoretical factors. The Cronbach's alpha test of internal consistency, which has been previously addressed, examined how well survey items and factors held together as separate homogenous concepts. Paired samples t-tests examined which factors serve as incentive for an institution to engage in realignment over other factors. Additionally, paired samples t-tests examined if institutional administrator position influence factors as

incentive to engage in realignment. The fourth research question was not analyzed statistically, but rather served to address an overarching conclusion of this study.

Descriptive statistics related to the responses on the survey are presented in Chapter 4 to aid in understanding central tendency and dispersion, overall and among the various institutional administrators. This allows for a basic understanding of response patterns to items. Descriptive statistics also reflect item characteristics as well as characteristics of the sample. Further detail of the EFA and paired samples t-tests are addressed in subsequent sections.

Exploratory factor analysis. Kachigan (1982) indicates that EFA is an appropriate technique for the purposes of data reduction among a group of correlated variables. EFA can help to reduce these items into groups of factors. In addition to summarizing data, EFA also helps to identify relationships among items and provide a degree of inferential power (Kachigan, 1982). EFA informs whether the data collection instrument (Likert survey) is appropriate. The EFA helped to identify naturally occurring factors that incentivize institutional conference realignment decisions according to participants' responses. Additionally, EFA addresses common and unique factors and errors of measurement on measured items. Common factors influence two or more measured items, while a unique factor influences one measured item but is not suitable in explaining correlations among measured variables (Kachigan, 1982). A summary of EFA specifications implemented in this study is addressed in Appendix E. The following are detailed recommendations from relevant literature regarding the proper execution of an EFA utilized in this study.

Recommendations from the literature. Kachigan (1982) indicates that when utilizing EFA, one needs a minimum of two items, p , in order to extract a common factor, k , but that it is ideal to utilize three to five items. This is very much in line with Comrey and Lee (1992) and Williams, Brown, and Onsman's (2010) positions on EFA. Each indicates that it is best to utilize more than the minimum number of items and that an appropriate rule to follow is $p = 3 \times k$, but it is ideal to adhere to $p = 5 \times k$. Although seven factors have been identified in the literature which may incentivize institutional realignment decisions, this may simply be thought of as a theoretical idea of what may be produced through EFA. However, in order to implement the above formula, it is expected that seven factors, k , exist. Utilizing the upper limit of the formula $p = 5 \times k$, the appropriate number of items implemented in this study was 35. Recommendations related to items are addressed next.

Items. Increases in both items and factors help to better determine commonalities, rotations, and factor scores (Comrey & Lee, 1992; Kachigan (1982); Williams, Brown, & Onsman, 2010). Comrey and Lee (1992), Kachigan, 1982, and Williams, Brown, and Onsman (2010) highlight safeguards for inclusion in an EFA study. First, items should be included that are only expected to load on a particular factor. Secondly, items that are experimentally dependent on each other (e.g. the result on one item is dependent on another) should not be included. A number of items may be related and may cross load on different factors. This was addressed utilizing oblique rotation which is discussed later in this section. Recommendations related to data screening are addressed next.

Data screening. Data were screened in order to address outliers and errors utilizing the Mahalanobis squared distances method. This method provided a relative

measure of a data point's distance from the point of commonality (Comrey & Lee, 1992; Mahalanobis, 1936). Comrey and Lee (1992) indicate that EFA items should be normally distributed, or alternatively, reasonably symmetric, in order to strengthen subsequent maximum likelihood tests for goodness of fit. In this study data were normally distributed/reasonably symmetric as is outlined in Chapter 4. To better understand how items related to each other, a correlation matrix was analyzed.

Correlation analysis. A correlation matrix is a systematic arrangement of correlation coefficients between each possible pair of items in the study (Kachigan, 1982). The matrix illustrates a visual representation of which items are related and which are removed within a factor (Comrey & Lee, 1992; Williams, Brown, & Onsman, 2010). To ensure suitability of participant responses for the EFA, the determinant statistic of the EFA's correlation matrix was examined. The examination of the determinant statistic addressed multicollinearity of data and suggested whether related items should have been removed in the event that multicollinearity exists (Field, 2005; Williams, Brown, & Onsman, 2012). Field (2005) indicates that a determinant statistic greater than .00001 is ideal to suggest that multicollinearity is not a problem, while any non-zero determinant statistic is also indicated as suitable (Williams, Brown, & Onsman, 2010). These aspects are addressed in detail in chapter 4.

Pre-factor extraction analysis. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and the Bartlett's Test of Sphericity were identified as appropriate measures to assess the suitability of participant responses pre-factor extraction (Williams, Brown, & Onsman, 2010). The KMO statistic is a summary of how small the partial correlations are, compared to the original correlations. The partial correlation for each

pair of items is comprised of the correlation between those items after removing the influence of all of the other items in the factor analysis. If the items share a common factor, the partial correlations should be small and the KMO should be close to 1.0 (Cerny & Kaiser, 1977; Williams, Brown, & Onsman, 2010). A .8 or greater measuring on the KMO and a significant value ($p < .05$) is appropriate for EFA and served as the criterion in this study to assess participant data suitability.

Bartlett's test was used to test if x number of samples had equal variances, that is; it verifies the assumption that equal variances exist across groups or samples (Williams, Brown, & Onsman, 2010). The Bartlett's test incorporates a null hypothesis that the variances are equal with the alternative hypothesis being that they are unequal. In testing the null hypothesis, a test statistic larger than the critical value at the 0.05 significance level will be rejected. It can then be concluded that at least one participant's data variance is different from the others. In this study, the null hypothesis failed to be rejected. The KMO statistic and Bartlett's test are presented in chapter 4. Recommendations from the literature related to factor extraction are addressed next.

Factor extraction. Factor extraction. The maximum likelihood method was appropriately utilized in this study as data were normally distributed, providing a wide range of goodness of fit parameters (Comrey & Lee, 1992; Kachigan, 1982; Williams, Brown, & Onsman, 2010).. In determining the number of factors through EFA, Williams, Brown, and Onsman (2010) suggest utilizing multiple methods for factor extraction. The methods utilized in this study were Kaiser's criteria in which the number of factors is equal to the number of eigenvalues >1 and the Scree Test. Comrey and Lee (1992), Kachigan (1982), and Williams, Brown, and Onsman (2010) describe the Scree Test as a

visual representation of how many factors to extract by plotting the eigenvalues from greatest to least in terms relative to their magnitude to the number of factors. The break between the plotted slope and the point of stagnation indicates the number of meaningful factors (Comrey & Lee, 1992; Kachigan, 1982; Williams, Brown, & Onsman, 2010). The results Kaiser and Scree Test are detailed in chapter 4.

Factor rotation. In utilizing EFA, an examination of how items relate to more than one factor is appropriate. As described by Williams, Brown, and Onsman (2010): “Rotation maximises high item loadings and minimises low item loadings, therefore producing a more interpretable and simplified solution” (p. 9). Because correlated and uncorrelated factor structures exist, oblique rotation addressed correlated factor structures and orthogonal rotation addressed uncorrelated factor structures. Oblique rotations have been identified as supplying simple factor loadings and accurate results providing for overall ease of interpretation (Comrey & Lee, 1992; Williams, Brown, & Onsman, 2010). Orthogonal rotations have been identified for simplicity and clarity (Williams, Brown, & Onsman, 2010). The rotation procedure helps to redefine factors in order of explained variance (Comrey & Lee, 1992; Kachigan, 1982; Williams, Brown, & Onsman, 2010). Promax rotation is employed for oblique rotations while Varimax rotation is employed for orthogonal rotations. The results of the factor rotation process are presented in chapter 4. Recommendations from the literature concerning data interpretation are next.

Interpretation. The interpretation phase required the examination of items which are attributed to a factor, and subsequent coding or naming of factors. EFA was conducted utilizing the IBM SPSS Statistics 20 software package. The comparison

between the theoretical factors and those which emerged through the EFA helped to confirm factors.

Paired samples t-tests. Research Questions #2 and #3 are analyzed utilizing paired-samples t-tests. Paired samples t-tests examined the means of each pair of factors that emerge from the exploratory factor analysis from. Paired samples t-tests are useful in analyzing two variables with the same units of measure from the same subjects from the same time to determine if the subjects score differently on one criterion compared to the other (Slate & Rojas-LeBouef, 2012). This is an appropriate method to determine which factors most incentivize an institution to engage in conference realignment by comparing means of each possible pair of factors across the sample. A summary of all paired-samples t-test specifications is addressed in Appendix F. The following are detailed recommendations from relevant literature regarding proper execution of paired-samples t-tests.

Recommendations from the literature. Two sets of hypotheses guided the paired samples t-tests, one for Research Question #2 and one for Research Question #3. These will guide the paired-samples t-tests. The criterion for the proper region of rejection was established per guidelines utilized in the social sciences for this type of analysis, considering it was a multiple comparison analysis. This assisted in the decision making process in regard to the hypotheses. Effect size was also a paramount consideration. Each of these aspects is described below.

Criterion for rejection. Typical social sciences guidelines require an alpha level of .05 for rejection in order to avoid a false discovery (Kachigan, 1982; Slate & Rojas-LeBouf, 2012). Because this is a multiple comparison procedure, control of the family-

wise error rate (FWE) is critical to avoid acceptance of a false discovery. Slate and Rojas-LeBouef (2012) identify several multiple comparison methods to control the FWE. Of these, the Bonferroni was implemented due to its near universal functional applicability, and its lack of restriction in regard to dependent or independent samples (Slate & Rojas-LeBouef, 2012). The calculation of the Bonferroni method reduced the significance level to an appropriate threshold and will also affect the confidence interval under this examination. This calculation is addressed in Chapter 4. An appropriate sample size is evaluated in part due to effect size.

Effect size. In order to assess the significant differences, Cohen's d was implemented as a measure of effect size. Cohen's d is useful when comparing two means and is described as the difference between the two means divided by the average of their standard deviation (Slate & Rojas-LeBouef, 2012). A d statistic of 1 suggests that the means under analysis differ by a single standard deviation, and so on (Slate & Rojas-LeBouef, 2012). In terms of the magnitude of effect size, Slate and Rojas-LeBouef (2012) forward guidelines established by Cohen in regard to the interpretation of effect sizes utilizing this measure: .2 is considered small, .5 is considered medium, and .8 or greater is considered large. This interpretation of these guidelines indicate that the two group means under examination must differ by at least $d = .2$ in order to declare an actual observed difference.

Interpretation. The IBM SPSS Statistics Version 20 (2011) software package was utilized for the paired-samples t-tests. A summation of Chapter 3 is forwarded below.

Summary

Before the study commenced, the researcher gained approval from the University of Nevada, Las Vegas' Institutional Review Board as the study incorporated human subjects. A survey was created utilizing the Qualtrics web-based tool. A seven person expert in the area of intercollegiate athletics reviewed the survey to assess validity. Once issues concerning validity were addressed, e-mail addresses were collected for each of the potential participants utilizing each institution's website staff directory or the Higher Education Administration database. These e-mails were then uploaded to Qualtrics for electronic dissemination. An informed consent prompt was administered as part of the e-mail inviting participation. This included an outline of the researcher's role and participants' role in the study and the collection of participant information.

Part one of the survey addressed institutional profile information related to the position the participant holds at his/her institution and whether or not their institution has engaged in realignment recently. Part one of the survey also addressed items identified through the literature which may serve as incentive for an institution to realign with a particular conference. Part two of the survey further addressed institutional profile information related to which conference their institution belongs to, the influence of particular sports, and qualitative participant information in regard to any pertinent information not addressed in the survey. Measures to ensure confidentiality included the collection of the bare minimum of identifiable participant information as well as the immediate removal and destruction of any identifiers. All potential and actual participants were emailed an executive summary of study results upon its completion.

Data from the study were analyzed utilizing the Cronbach's alpha test to assess that items hold together as homogenous concepts, exploratory factor analysis (EFA) to define factors and confirm or deny theoretical factors, confirmatory, and paired-samples t-tests examine group mean differences among factors (Research Question #2) and factors by respondent type (Research Question #3).

For EFA, data was screened in order to address outliers or errors utilizing the Mahalanobis squared distances method. Standards to retain variables, factor loadings, and factor extraction, guide subsequent analysis and interpretation. IBM SPSS Statistics Version 20 (2011) is utilized for the EFA. For paired-samples t-tests, alpha level is established utilizing the Bonferroni method to control the family wise error rate due to the nature of the multiple comparisons for this analysis. Effect size interpretation is based on typical standards relative to Cohen's *d*. Finally, principal-agent theory serves as the theoretical lens to help understand the relationship between institutions and conference emerging from the data. Results are presented in Chapter 4.

CHAPTER 4

RESULTS

The purpose of this study is to investigate factors that may serve as incentives for institutions to realign with a particular conference based on the perceptions of identified administrators. This study addresses these points grounded in principal-agent theory as a means to help understand the relationship between NCAA Division-I institutions and conferences. Limited studies to date examines conference realignment in this context, and realignment has been one of the most visible changes in intercollegiate athletics in recent years. This chapter addresses the response rate related to the survey, provides pertinent information related to the composition of the participants in this study, and reports findings related to the study's research questions.

Response Rate

Across the 351 current National Collegiate Athletic Association (NCAA) Division-I institutions, 1,404 potential participants were identified (university presidents, athletic directors, senior woman administrators, and faculty athletic representatives). Attempts to collect e-mail address information for each potential participant commenced by visiting each school's website and/or athletics webpage link. When this information was unattainable, the Higher Education Directory served as a secondary source, which is a listing of all administrators in different sectors of higher education. The study consisted of 1,266 e-mail addresses uploaded to Qualtrics and administered with surveys were administered over a six-week period. One hundred forty-eight participants returned surveys in which useful data were extracted. However, five of the 148 participants completed the first portion of the survey and not the second portion. Those five surveys provided information that could be analyzed statistically, but did not provide institutional

profile information related to conference affiliation, specific sport influence on realignment, and supplemental comments.

Overall, 11.7% of the survey population participated in the study. Although this figure was well below estimates forwarded by Fincham (2008) in regard to electronic survey response rate that suggest a typical response rate of 25%-30%, he also states that lower response rates are common. Comrey and Lee (1992), Kachigan (1982), and Williams, Brown, and Onsman (2010) suggest an adequate sample size for exploratory factor analysis as at least five times the number of items analyzed, which means, ideally, at least 175 participants for this study. This recommendation suggests that the final sample size in this study of 148 is not ideal, but it is still possible to run a factor analysis. This limitation is further addressed in Chapter 5. In order to provide an idea of the composition of the participants, the *Participant Profile* section is next.

Participant Profile

The make-up of the survey sample did not represent the overall population in which presidents, athletic directors, senior woman administrators, and faculty athletic representatives each account for 25% across the NCAA Division-I level. Additionally, two participants responded with the “Other” designation. This designation in the survey accommodates those individuals who may have been authorized to respond on the behalf of presidents, athletic directors, senior woman administrators, or faculty athletic representatives. Response rate by position is depicted in Table 2.

Table 2

Response Rate by Institutional Position

| Position | Surveys Administered | Participants |
|----------------------------------|----------------------|--------------|
| President | 300 | 17 (5.6%) |
| Athletic Director | 321 | 34 (10.5%) |
| Senior Woman Administrator | 337 | 45 (13%) |
| Faculty Athletics Representative | 308 | 51 (16.5%) |
| Other | 0 | 2 (N/A) |

Note: The “Other” category represents individuals who may have been designated to report on behalf of identified institutional administrators.

Despite Senior Woman Administrator and Faculty Athletics Representative designated as required positions for National Collegiate Athletic Association members (NCAA, 2013), many of those positions and contact information are not listed on institution or athletics websites.

Although the unit of analysis in this study is not individual institutions, overall responses revealed that 48% of the institutions represented, both public and private, changed conference affiliation between the years 2010 and 2014. Each of the 32 NCAA Division-I athletic conferences are represented, as well as representation from institutions that claim “independent” as their conference affiliation. Five participants did not complete the second portion of the survey. Conference affiliation representation in this study is found in Appendix F.

Although the study collected information from different respondent types, the overall the factor analysis to address Research Question #1 and paired samples t-tests to address Research Question #2 combines all responses. This provides insight into *overall*

institutional decisions as it relates to incentive to engage in conference realignment. However, comparison by respondent type for the purposes of paired samples t-tests does serve to address Research Question #3. The *Findings* section of this chapter addresses each research question. The remainder of the chapter provides an item analysis that frames the data and then answers the three research questions.

Item Analysis

Nearly three-fourths (71%) of survey questions had a mean score greater than 3 (neutral point on the 5-point Likert scale) implying the perception among participants that many of the items incentivize institutional conference realignment. Additionally, all questions on the survey were within the accepted range of skewness and kurtosis criterion of ± 2.00 indicating that assumptions of normality were not violated (Carifio & Perla, 2007). Survey item analysis appears in Table 3. The five highest and lowest rated items are indicated in bold font towards the top and bottom of the table, respectively.

Table 3

Survey Item Analysis

| Question | M | SD | Skewness | Kurtosis |
|--|-------------|-------------|--------------|-------------|
| <i>"To what extent do the following considerations serve as incentive for your institution to affiliate with a particular conference?"</i> | | | | |
| Overall athletic quality of the conference | 4.21 | .88 | -1.09 | 1.16 |
| Conference's access to television/media broadcast rights packages | 4.05 | 1.24 | -1.26 | .61 |
| Conference's access to revenue generating post-season opportunities | 4.01 | 1.24 | -1.15 | .26 |
| Enhanced institutional profile | 3.99 | 1.11 | -1.10 | .65 |
| Scheduling of conference competition | 3.96 | 1.08 | -1.15 | 1.03 |
| Regional proximity to conference member institutions | 3.95 | 1.17 | -1.05 | .35 |
| Institutional brand development | 3.93 | 1.16 | -1.07 | .49 |
| Similarity of academic profiles among member institutions | 3.93 | 1.06 | -.75 | -.12 |
| Ability to compete athletically | 3.89 | 1.22 | -.94 | .06 |
| The influence that the academic reputation of a conference may have on your institution's academic profile | 3.86 | 1.17 | -.87 | -.07 |
| Parity to access post-season | 3.80 | 1.19 | -.78 | -.07 |
| Rivalries with other conference member institutions | 3.76 | 1.16 | -.82 | -.07 |
| Ability to effectively build brand with alumni/fan groups | 3.70 | 1.13 | -.81 | .10 |
| Ability for the conference to generate revenue through ticket sales | 3.66 | 1.24 | -.70 | -.49 |
| Opportunities for revenue from licensing corporate sponsorships and donations through conference affiliation | 3.63 | 1.31 | -.64 | -.67 |
| Missed class time for student-athletes due to travel for competition | 3.61 | 1.35 | -.64 | -.76 |
| A connection to alumni/fan groups in new markets | 3.59 | 1.14 | -.51 | -.44 |
| The influence that your institution's academic profile may have on the academic reputation of the conference | 3.58 | 1.25 | -.59 | -.57 |
| Access to new and emerging markets | 3.49 | 1.24 | -.52 | -.62 |
| Ability to attract potential students through conference affiliations | 3.49 | 1.28 | -.50 | -.70 |
| Indirect financial support | 3.43 | 1.13 | -.50 | -.40 |
| Performance of conference members | 3.43 | 1.06 | -.59 | -.02 |
| Charitable contributions from alumni/fan groups | 3.18 | 1.19 | -.22 | -.77 |
| Prospective student demand at conference member institutions | 3.12 | 1.23 | -.28 | -.89 |
| Fan interest in out of conference competition | 3.09 | 1.34 | -.24 | -1.05 |
| Win totals by member institutions | 3.03 | 1.15 | -.14 | -.65 |
| Scheduling out of conference competition | 3.03 | 1.16 | -.20 | .36 |
| Comparable facilities | 2.93 | 1.11 | -.24 | -.60 |
| Parity to better position in win-loss standings | 2.80 | 1.20 | -.14 | -.85 |
| Wide differences in annual operating budget among conference members | 2.55 | 1.28 | .23 | -1.04 |
| Short-term relationships between conference and member institutions | 2.49 | 1.15 | .29 | -.74 |
| Ability to attract potential faculty through conference affiliations | 2.30 | 1.25 | .68 | -.47 |
| Prospective faculty employment interest at conference member institutions | 2.25 | 1.17 | .56 | -.74 |
| Lack of an existing fan base in new conference | 2.23 | 1.15 | .63 | -.48 |
| Lack of national championships won by member institutions | 1.90 | 1.03 | 1.08 | .67 |

The second and third highest rated items, as measured by the mean, also exhibit two of the highest standard deviations suggesting high variability in responses among this

sample. Similarly, four of the five lowest rated items exhibit high variability in responses. This variation is also represented in higher skewness than other items. These results indicate that some items are viewed as more of an incentive than other items to the participants in this study, but where standard deviations are high, those results are less definitive. Research question #1 is addressed in more detail next.

Research Question #1: What factors serve as incentives for an institution to consider a change in conference affiliation?

The first research question seeks to investigate factors which may incentivize institutional conference realignment. Exploratory factor analysis (EFA) is an effective method to reduce responses from different participants into a set of factors for exploratory purposes (Kachigan, 1982). The maximum likelihood method for EFA provides flexibility in analyzing data (Comrey & Lee, 1992; Williams, Brown, & Onsman, 2010).

Item correlation. An examination of the determinant statistic of the EFA's correlation matrix ensures suitability of participant responses. The examination of the determinant statistic addresses multicollinearity of data and suggests whether related items should be removed in the event that multicollinearity exists (Field, 2005; Williams, Brown, & Onsman, 2012). Field (2005) indicates that a determinant statistic greater than .00001 is ideal to suggest that multicollinearity is not a problem, while any non-zero determinant statistic is also suitable (Williams, Brown, & Onsman, 2010). In this study, the assessment of the determinant statistic was conducted post-hoc, rather than during initial analysis and registered as .00000000001119. This is below the recommended cut-

off forwarded by Field (2005), but it is also greater than zero, making it suitable per Williams, Brown, & Onsman (2010). This limitation is addressed in Chapter 5.

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) further examines and summarizes how small partial correlations between items are after removing the influence for all other items (Comrey & Lee, 1992; Williams, Brown, & Onsman, 2010). A .8 or greater measuring on the KMO and a significant value ($p < .05$) is appropriate for EFA (Cerny & Kaiser, 1977; Williams, Brown, & Onsman, 2010). The KMO statistic result (.864, $p < .05$) is suitable for this study. The Bartlett's Test of Sphericity ensures that variables relate to one another enough to conduct an exploratory factor analysis. The test incorporates a null hypothesis that the variances are equal; the alternative hypothesis is that they are unequal. A test statistic larger than the critical value at the .05 significance level is rejected indicating variance differ (Comrey & Lee, 1992; Williams, Brown, & Onsman, 2010). This is in fact the case, 3277.481 ($p = .000$), and provided the rationale to continue with the EFA.

Factor extraction. Both the Kaiser method and Scree test are suitable methods for initial factor extraction (Comrey & Lee, 1992; Williams, Brown, and Onsman (2010). Each indicated eight extracted factors. Table 4 depicts initial factor extraction as well as each initial factors' explained variance.

Table 4

Initial Factor Extraction and Total Explained Variance

| Factor | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|--------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 11.52 | 32.90 | 32.90 | 7.42 | 21.21 | 21.21 |
| 2 | 2.87 | 8.20 | 41.10 | 1.00 | 2.85 | 24.06 |
| 3 | 2.50 | 7.12 | 48.22 | 5.19 | 14.83 | 38.89 |
| 4 | 2.06 | 5.87 | 54.09 | 1.73 | 4.93 | 43.82 |
| 5 | 1.68 | 4.81 | 58.90 | 1.29 | 3.69 | 47.51 |
| 6 | 1.30 | 3.71 | 62.61 | 1.84 | 5.24 | 52.75 |
| 7 | 1.08 | 3.07 | 65.68 | 1.38 | 3.94 | 56.70 |
| 8 | 1.02 | 2.91 | 68.60 | .925 | 2.64 | 59.34 |

In total, the eight factors account for nearly two-thirds of the variance (59.34%) of the factor solution. The initial factor extraction indicates that Factor 1 retained nearly four times the components and explained nearly four times the variance of the factor solution. Orthogonal and oblique factor rotation help to better define factors.

Orthogonal rotation produced five factors with at least three factor loadings that met the recommended .4 loading cut-off per factor (Williams, Brown, & Onsman, 2010). Oblique rotation produced six factors with at least three factor loadings that met the .4 loading cut-off per factor (Comery & Lee, 1992; Williams, Brown, & Onsman, 2010). Five of the 35 items under analysis are deleted as a result of the orthogonal rotation, while four of the 35 items are deleted as a result of the oblique rotation. In each case, items are deleted due to unacceptable loading on any factor. The five-factor solution and the six-factor solution are found in Appendix G.

The theoretical factor solution forwarded in Chapter 2 is based on a review of literature in the area of intercollegiate athletics. It consists of seven factors believed to share some level of correlation: Competitive Balance, Revenue, Exposure, Team Travel,

Academic Prestige, Athletic Prestige, and Alumni (Fan) Proximity. The result of the orthogonal rotation produced the five-factor solution, which collapsed the theoretical factors referred to as Revenue, Athletic Prestige, and Alumni (Fan) proximity into one new factor. The result of the oblique rotation produced the six-factor solution which collapsed the theoretical factors referred to as Exposure and Alumni (Fan) Proximity into one new factor.

These findings suggest that there is validity to the theoretical seven-factor solution. Only four items were deleted from the six-factor solution as opposed to the eight items deleted from the five-factor solution. Additionally, the structure of the six-factor solution is similar to the theoretical solution and therefore serves as the basis for further examination in this study. The six factors forwarded for examination are referred to as Competitive Balance, Revenue, Team Travel, Academic Prestige, Athletic Prestige, and the new factor, Market. Market is selected as the name of this factor because items that loaded on it seem to characterize presentation to external constituents such as fans and alumni in particular geographic areas of the country. The description of this term is consistent with descriptions related to exposure and fan/alumni connections via intercollegiate athletics (Carmichael, 2002; Groza, 2010; Perline & Stoldt, 2007; Price & Sen, 2007; Sweitzer, 2009; Toma, 1999). Detailed factor loadings for the six factor solution are presented in Appendix I.

Thirty-one items met the prescribed factor loading cut-off for retention of .4 (Williams, Brown, & Onsman, 2010). These loadings ranged from .42 to .98. Nine items loaded on the Market factor, the most in this solution, while three items each loaded on the Academic Prestige and Athletic Prestige factors. To understand how each of the factors

holds together as independent homogenous concepts, reliability coefficients are presented in Table 5.

Table 5

Reliability for Individual Factors

| Factor | Components | α |
|---------------------|------------|----------|
| Market | 9 | .91 |
| Revenue | 4 | .91 |
| Competitive Balance | 7 | .75 |
| Team Travel | 5 | .83 |
| Academic Prestige | 3 | .87 |
| Athletic Prestige | 3 | .77 |

The solution produced acceptable reliability coefficients for each factor per Cronbach's alpha standards of $\alpha = .7$ (Andrew, Pederson, & McEvoy, 2011; Creswell, 2009; Kachigan, 1982). The acceptable reliability coefficients for each of these factors serves as further rationale that the factor analysis is appropriate and is the basis to continue to the next research question. A confirmatory factor analysis was initially proposed to assist in confirming the factor solution. Due to a lower response rate than expected, the confirmatory factor analysis is not suitable for this study.

Findings. Results from the EFA suggest that there are six factors which serve as incentive for an institution to consider a change in athletic conference affiliation. These factors are Market, Revenue, Competitive Balance, Team Travel, Academic Prestige, and Athletic Prestige. The Market factor is a new factor relative to the theoretical seven-factor solution. This factor combines the theoretical Exposure and Alumni (Fan) Proximity factors. Additionally, the Market factor retains the most components, accounts for the most variance of the factor solution, and yields the highest reliability coefficient. Academic Prestige and Athletic Prestige retain the fewest number of components. In sum, the six factors retain 31 of 35 components at an acceptable level and are each independently reliable per Cronbach's alpha standards. Limitations and specific findings

related to Research Question #1 are addressed in more detail in Chapter 5. Research question #2 is addressed in detail next.

Research Question #2: Do some factors serve as more of an incentive for an institution to consider a change in athletic conference affiliation than others?

The second research question seeks to determine if some factors are more influential than others in regard to institutional conference realignment based on the responses of the overall sample (n=148). Paired samples t-tests test the means of each pair of factors forwarded from Research Question #1. Paired samples t-tests are useful in analyzing two variables with the same units of measure from the same subjects from the same time to determine if the subjects score differently on one criterion compared to the other (Slate & Rojas-LeBouef, 2012). This is an appropriate method to determine which factors most incentivized an institution to engage in conference realignment. Although the t-tests examined if *any* significant difference exists between factors, the interpretation may suggest that if the mean incentive to realign is significantly greater for a particular factor, that the factor incentivizes an institution to engage in realignment most. Because there are six factors under examination, a combination of 30 paired-samples t-tests influences effect size and power as addressed below.

Because this is a multiple comparison procedure, control of the family-wise error rate (FWE) is critical to avoid Type-I error (Slate & Rojas-LeBouef, 2012). Slate and Rojas-LeBouef (2012) identify several multiple comparison methods to control the FWE. Of these, the Bonferroni method provides universal functional applicability, and is not restricted as it pertains dependent or independent samples (Slate & Rojas-LeBouef, 2012). Typical standards in the social sciences require a significance level (α) of .05

(Kachigan, 1982) in order to reject a null hypothesis. The calculation of the Bonferroni method reduced α from .05 to .002.

Related to significance level is power (β), or the probability to correctly reject a null hypothesis when the null hypothesis is false (Kachigan, 1982). Typical social science standards require $\beta=.8$. This proper β level is identified in examining effect size and sample size in this study for the paired samples t-tests utilized in Research Questions #2 and #3. In order to achieve $\beta=.8$, results which produce a small effect size require 199 pairs as a minimum sample size, results which produce a moderate effect size require 34 pairs as a minimum sample size, and results that produce a large effect size require 15 pairs as a minimum sample size (Konietschke & Pauly, 2014). In cases in which a particular effect size exists (i.e. small, moderate, or large), but the appropriate sample size does not, any conclusions must be made with care as the possibility of a Type-II error, or a false discovery of an effect, exists (Kachigan, 1982; Konietschke & Pauly, 2014). There are cases in this study in which appropriate power is not achieved. This is addressed in more detail within this section.

Cohen's d measures the effect size of significant differences. Cohen's d is useful when comparing two means and is described as the difference between the two means divided by the average of their standard deviation (Slate & Rojas-LeBouef, 2012). A d statistic of 1 suggests that the means under analysis differ by a single standard deviation, and so on (Slate & Rojas-LeBouef, 2012). In terms of the magnitude of effect size, Slate and Rojas-LeBouef (2012) forward guidelines established by Cohen in regard to the interpretation: .2 is considered small, .5 is considered medium, and .8 or greater is considered large. The interpretation of these guidelines indicate that the two means under

examination must differ by at least $d = .2$ in order to declare an actual observed difference (Slate & Rojas-LeBouef, 2012). Otherwise stated, $d \geq .2$ helps to substantiate any significant differences.

Each factor is a grouping of the various items from the previous factor analysis in this study. Descriptive statistics for each factor incorporates the participant data from numerous items transformed into a single homogenous concept (i.e. factor), which allows for grouped data to be represented in various single statistics. This data process was part of data transformation using the IBM SPSS Statistics Version 20 (2011) software package. Descriptive statistics for each factor are presented in Table 6.

Table 6

Descriptive Statistics for all Factors

| Factor | N | M | SD |
|---------------------|-----|------|------|
| Revenue | 148 | 3.84 | 1.13 |
| Academic Prestige | 148 | 3.79 | 1.03 |
| Team Travel | 148 | 3.66 | .91 |
| Athletic Prestige | 148 | 3.56 | .85 |
| Exposure | 148 | 3.45 | .91 |
| Competitive Balance | 148 | 2.95 | .75 |

The standard deviation associated with the Revenue factor is the highest of all factors. Although Revenue illustrates the highest mean factor value, there is high variability in responses on the items that comprise this factor. Generally, this is the case for the remaining factors other than Competitive Balance. Competitive Balance exhibits the lowest mean factor value and also exhibits the lowest standard deviation. This indicates minimal variation in responses on the items that comprise this factor. To understand how the factors rate against each other, closer analysis is in order. A presentation of specific results from the 30 paired-sample t-tests follows.

Paired sample t-tests. A summary of pair-wise analyses is shown in Table 7.

This table represents only those pair-wise analyses in which any single factor is significantly greater than others.

Table 7

Results of Paired Samples t-test for All Factors (n=148)

| Factor | M | t | d |
|--------------------------|-------------|-------|------|
| Revenue | 3.84 | | |
| Market | 3.45 | 5.12 | .38 |
| Athletic Prestige | 3.56 | 3.83 | .28 |
| Competitive Bal. | 2.95 | 10.33 | .93* |
| Academic Prestige | 3.79 | | |
| Market | 3.45 | 3.96 | .35 |
| Competitive Bal. | 2.95 | 9.32 | .92* |
| Team Travel | 3.66 | | |
| Competitive Bal. | 2.95 | 9.70 | .85* |
| Athletic Prestige | 3.56 | | |
| Competitive Bal. | 2.95 | 8.72 | .76 |
| Market | 3.45 | | |
| Competitive Bal. | 2.95 | 6.94 | .60 |

Note: Bolded factors indicate those significantly different compared to other mean factors as measured by t-test (*t*)

p = .000

*Indicates $\beta \geq .8$

Revenue. The results of five paired sample t-tests indicate that the mean incentive for Revenue is significantly different from Market, Competitive Balance, and Athletic Prestige factors. Corresponding effect sizes substantiate these differences. The effect sizes of Revenue/Market and the Revenue/Athletic Prestige pairs are small, but enough to discern observable differences in the pairs. The effect size of the Revenue and Competitive Balance pair is large, approximately one standard deviation.

Academic prestige. The results of five paired-samples t-tests indicate that the mean incentive for Academic Prestige is significantly differs from Market and Competitive Balance. The effect size of the Academic Prestige/Market pair is small, but

the means differ enough to substantiate the difference. The effect size of Academic Prestige and Competitive Balance is large as the two means differ by about one standard deviation.

Remaining factors. According to paired samples t-tests, each of the remaining factor pairs significantly differ from Competitive Balance only. Each of these factor pairs exhibit moderate to large effect sizes substantiating the magnitude of the differences of factor means. Additionally, Competitive Balance is the only factor which does not significantly differ from others.

Findings. Paired samples t-tests indicate that, of the factors that emerged as significant, only Revenue and Academic Prestige significantly differ than *multiple* factors and exhibit adequate effect sizes to substantiate these differences. Although suitable power is only achieved with the Revenue/Competitive Balance and Academic Prestige/Competitive Balance pairs, results suggest that Revenue and Academic Prestige most incentivize an institution to consider a change in athletic conference affiliation. Otherwise stated, Revenue and Academic Prestige are highly influential in institutions' realignment decision. Although the Market, Team Travel, and Athletic Prestige factors emerged as significant, they do not significantly differ from multiple factors which suggests they are not highly influential. Competitive Balance is not significantly greater than any factor. Comparisons involving Competitive Balance are large, substantiating the magnitude of the differences of these comparisons and suggesting that Competitive Balance least incentivizes an institution to consider a change in athletic conference affiliation.

Each of these findings must be qualified because, despite acceptable effect sizes, appropriate power ($\beta \geq .8$) is not achieved in all cases. The Revenue/Market and Revenue/Athletic Prestige pairs do not exhibit appropriate power. Each of the Academic Prestige/Market, Athletic Prestige/Competitive Balance, and the Market/Competitive Balance pairs do not exhibit appropriate power. This limitation, as well as specific findings related to Research Question #2, is addressed in more detail in Chapter 5.

Additional findings. Because the findings above reflect results from a series of independent t-tests which compare factor means, a supplemental analysis was appropriate to determine if similar results emerged. A one-way analysis of variance (ANOVA) examined the differences in means between all four institutional administrator types. Table 8 illustrates results of the omnibus F tests.

Table 8

Results of Omnibus F test

| Factor | df | Mean Square | F | Sig. |
|----------------------------|-----|-------------|--------|------|
| Revenue | | | | |
| Between Groups | 3 | 1.03 | 68.92 | .000 |
| Within Groups | 144 | .02 | | |
| Total | 147 | | | |
| Academic Prestige | | | | |
| Between Groups | 3 | .34 | 244.14 | .000 |
| Within Groups | 144 | .00 | | |
| Total | 147 | | | |
| Team Travel | | | | |
| Between Groups | 3 | .70 | 88.27 | .000 |
| Within Groups | 144 | .01 | | |
| Total | 147 | | | |
| Athletic Prestige | | | | |
| Between Groups | 3 | .52 | 122.72 | .000 |
| Within Groups | 144 | .00 | | |
| Total | 147 | | | |
| Market | | | | |
| Between Groups | 3 | 4.82 | 540.86 | .000 |
| Within Groups | 144 | .00 | | |
| Total | 147 | | | |
| Competitive Balance | | | | |
| Between Groups | 3 | .22 | 21.60 | .000 |
| Within Groups | 144 | .01 | | |
| Total | 147 | | | |

Note: Bold indicates factor on which participants were compared
 $\alpha = .05$

Results from the omnibus F reveal significant differences exist across all six factors ($p = .000$). For post-hoc analysis, the Least Significant Differences (LSD) test provided better context as it indicated exactly which institutional administrator group or groups differed significantly. That is, LSD determined which institutional administrators generally rated factors more favorably across all scales. Results of the LSD test are presented in Table 9. Table 9 reflects the single institutional administrator type that rated the most favorably on each factor compared to other three institutional administrators.

Table 9

Least Significant Differences Post-hoc Analysis

| | Position Comparison | Mean Difference | Sig. |
|----------------------------------|------------------------|-----------------|------|
| Revenue | | | |
| Faculty Athletics Representative | President | .14 | .000 |
| | Athletic Director | .27 | .000 |
| | Senior Woman Admin. | -.16 | .035 |
| Academic Prestige | | | |
| President | Athletic Director | .15 | .000 |
| | Senior Woman Admin. | .31 | .000 |
| | Faculty Athletics Rep. | .20 | .000 |
| Team Travel | | | |
| President | Athletic Director | .31 | .000 |
| | Senior Woman Admin. | .84 | .000 |
| | Faculty Athletics Rep. | .82 | .000 |
| Athletic Prestige | | | |
| President | Athletic Director | .61 | .000 |
| | Senior Woman Admin. | .36 | .072 |
| | Faculty Athletics Rep. | .36 | .095 |
| Market | | | |
| President | Athletic Director | .02 | .000 |
| | Senior Woman Admin. | .15 | .000 |
| | Faculty Athletics Rep. | .00 | .060 |
| Competitive Balance | | | |
| Faculty Athletics Representative | President | .17 | .000 |
| | Athletic Director | .19 | .000 |
| | Senior Woman Admin. | .00 | .970 |

Note: Bold indicates factor on which participants were compared

Although mean differences were not significant in each pair of comparisons, enough of a difference existed in those particular cases to conclude that the institutional administrator listed in the left hand column rated more favorably on that particular factor. Results of ANOVA indicate that, generally, presidents rate factors most positively on four of the six factors. Specifically, results indicate the presidents are faculty athletic representatives have a more positive bias than athletic directors and senior woman administrators in regard to factors that incentivize an institution to consider a change in conference affiliation. Research question #3 is addressed in detail next.

Research Question #3: To what degree do perceptions among institutional administrators differ in regard to incentives to change conference affiliation?

The third research question seeks to determine the influence of institutional administrator type on each of the factors under examination. Paired samples t-tests examine the means of each pair of factors specific to institutional administrator type (represented by four different groups). This is an appropriate method to explore which factor institutional administrators believe most incentivize an institution to change conference affiliation because the means of each possible pair of factors as calculated from the same institutional administrator are compared to one another. If the mean differences are different across groups, institutional administrator type influences results. Thirty paired-samples t-tests are analyzed for each institutional administrator representing the maximum number of factor pairs. Because this is a multiple comparison procedure, the Bonferroni method is implemented to control the family-wise error rate (FWE) to avoid Type-I error (Slate & Rojas-LeBouef, 2012). Cohen's d is again implemented as a measure of effect size. Sample size thresholds related to power in RQ #2 are forwarded to RQ #3. Results notated with an asterisk, indicate sufficient power ($\beta = .8$) for the particular comparison. Qualifications for those comparisons in which sufficient power is not achieved are addressed in further detail in this section.

Each factor is a grouping of the various items from the previous factor analysis in this study. The data file was split to examine the factors by institutional administrator type. Descriptive statistics for each factor incorporates the participant data from numerous items transformed into a single homogenous concept (i.e. factor), which allows for grouped data to be represented in various single statistics, by institutional administrator type. This data process was part of data transformation using the IBM SPSS Statistics 20 software package. Descriptive statistics concerning each factor rated by

institutional administrator are presented in Table 10. This should not be interpreted as a comparison between each of the particular groups.

Table 10

Descriptive Statistics for Institutional Administrator Groups

| | Factor | M | SD | | Factor | M | SD |
|---------------------------------|---------------------|------|------|----------------------------------|---------------------|------|------|
| Presidents (n=17) | Team Travel | 4.18 | .48 | Senior Woman Admins. (n=44) | Revenue | 4.02 | 1.15 |
| | Academic Prestige | 4.00 | 1.10 | | Academic Prestige | 3.69 | 1.13 |
| | Revenue | 3.72 | .87 | | Athletic Prestige | 3.64 | .98 |
| | Market | 3.58 | .81 | | Market | 3.43 | 1.02 |
| | Athletic Prestige | 3.55 | .66 | | Team Travel | 3.34 | 1.12 |
| | Competitive Balance | 2.85 | .64 | | Competitive Balance | 3.02 | .77 |
| Athletic Directors (n=34) | Team Travel | 3.87 | .85 | Faculty Athletic Reps. (n=51) | Revenue | 3.86 | 1.09 |
| | Academic Prestige | 3.85 | 1.00 | | Academic Prestige | 3.80 | .95 |
| | Revenue | 3.59 | .86 | | Athletic Prestige | 3.64 | .76 |
| | Market | 3.56 | .81 | | Market | 3.58 | .81 |
| | Athletic Prestige | 3.39 | .82 | | Team Travel | 3.36 | .87 |
| | Competitive Balance | 2.83 | .74 | | Competitive Balance | 3.02 | .75 |

Presidents and athletic directors. The manner in which the factors rate for presidents and athletic directors are similar so it seems appropriate to discuss these results in a similar context. Although the factor mean values differ for each of these two groups, the order in which the factors rate are identical. For presidents, the standard deviation associated with the mean value of Team Travel, which exhibits the highest mean value, is .48 (the smallest for the group) suggesting minimal variability among components that comprise this factor. Although the Team Travel factor mean value is the highest for athletic directors, the standard deviation associated with it (.85) is one of the largest, suggesting moderate variability among responses on items that comprise this factor. For each groups, the mean factor value for Competitive Balance is the lowest and is nearly identical for each group. Additionally, the standard deviations for each group on that factor are similar. It appears that both presidents and athletic directors share similar views

in regard to which factors incentivize institutions to consider changes in athletic conference affiliation.

Senior woman administrators and faculty athletic representatives. The manner in which the factors rate senior woman administrators (SWAs) and faculty athletic representatives (FARs) also share some similarity athletic directors are similar so it seems appropriate to discuss these results in a similar context. For both SWAs and FARs, Revenue exhibits the highest mean value, and also exhibits the largest standard deviations suggesting variability in responses on the components that comprise the factor. For both groups, Competitive Balance has the same mean value ($M=3.02$), which is the lowest among factors. Additionally, the standard deviation value is similar and is the lowest for these groups which suggests minimal variability among responses on components that comprise the factor.

A summary of each pair-wise analysis is depicted in Table 11. This table represents those pair-wise analyses in which a significant difference exists. This should not be interpreted as a comparison between each of the particular groups.

Table 11

Factor Significance for Institutional Administrator Groups

| | Factor | M | t | d | | Factor | M | t | d |
|---------------------------------|--------------------|-------------|------|-------|---|--------------------------|-------------|------|-------|
| Presidents (n=17) | Team Travel | 4.18 | | | Senior Woman Administrators (n=44) | Revenue | 4.02 | | |
| | Athletic Prestige | 3.55 | 3.17 | 1.10* | | Athletic Prestige | 3.64 | 3.43 | .36 |
| | Competitive Bal. | 2.85 | 6.53 | 2.35* | | Market | 3.43 | 4.74 | .54 |
| | | | | | | Team Travel | 3.34 | 4.31 | .60 |
| Athletic Directors (n=34) | Team Travel | 3.87 | | | Faculty Athletic Representatives (n=51) | Competitive Bal. | 3.02 | 6.24 | 1.02* |
| | Athletic Prestige | 3.39 | 3.66 | .57 | | Revenue | 3.86 | | |
| | Competitive Bal. | 2.83 | 6.30 | 1.30* | | Market | 3.36 | 4.07 | .30 |
| | | | | | | Competitive Bal. | 3.02 | 5.85 | .90* |
| | | | | | | Academic Prestige | 3.80 | | |
| | | | | | | Competitive Bal. | 3.02 | 4.48 | .90* |

Note: Bolded factors indicate those significantly different compared to other mean factors as measured by t-test (*t*)

p = .000

*Indicates $\beta \geq .8$

Presidents and athletic directors. Results for both presidents and athletic directors, are similar so it seems appropriate to address them in a similar context. Results from the paired samples t-test comparison indicate Team Travel differs significantly from Athletic Prestige and Competitive Balance. For presidents, the effect sizes associated with the Team Travel/Athletic Prestige pair and the Team Travel/Competitive Balance pair are large which substantiates the magnitude of the significant differences. In the case of the Team Travel/Competitive balance pair, the associated effect size is more than twice that of the other comparison for presidents. This does not negate the significant difference, but serves to substantiate the sheer difference of the factor mean values between Team Travel and Competitive Balance. For athletic directors, the effect size associated with the Team Travel/Athletic Prestige pair is considered moderate, but still enough of an effect size to substantiate the significant difference. The effect size associated with Team Travel and Competitive Balance is large, as the two means of the paired samples t-test comparison differ by more than one standard deviation.

Senior woman administrators. For Senior Woman Administrators (SWA), paired samples t-tests indicate that the Revenue factor is significantly different from Athletic Prestige, Market, Team Travel, and Competitive Balance. The SWA group is the only group in which a single factor is significantly different than four other factors. The effect size associated with the Revenue/Athletic Prestige pair is small, but still enough to substantiate the difference between the two means. The effect sizes associated with the Revenue/Market pair and the Revenue/Team Travel are moderate but still large enough to substantiate the significant differences between the mean comparisons. The effect size associated with Revenue and Competitive Balance is considered large, as the two means of the paired samples t-test differ by more than one standard deviation, further substantiating the magnitude of the mean differences.

Faculty athletic representatives. For the faculty athletic representative (FAR) group, paired samples t-tests indicate Revenue is significantly different from both Market and Competitive Balance. T-tests also indicate that Academic Prestige is significantly different from Competitive Balance. The FAR group is the only one in which two single factors emerged as significantly different from others. The Revenue/Market pair exhibit enough of an effect size to minimally substantiate the difference between the two means. In each of the paired samples t-tests comparisons involving Competitive Balance, the effect sizes are identical ($d = .90$) which substantiates the magnitude of the differences between the pairs involved.

Findings for presidents and athletic directors. Findings for both the president and athletic director groups are similar making it appropriate to discuss the findings in that context. According to paired samples t-tests, Team Travel is the only factor that

significantly differs from multiple factors and exhibits adequate effect sizes to substantiate the difference. This suggests that presidents and athletic directors believe Team Travel most incentivizes an institution to consider a change in athletic conference affiliation and that Team Travel is a highly influential factor. It appears that Competitive Balance least incentivizes an institution to consider a change in athletic conference affiliation as paired samples t-tests indicate it does not significantly differ from any other factor and the effect sizes associated with pairs involving Competitive Balance are the largest for the president and athletic director groups. Although findings from the overall sample suggest Revenue and Academic Prestige, most incentivize an institution to consider a change in athletic conference affiliation, findings from presidents and athletic directors do not suggest either of those factors. This finding indicates that presidents' and athletic directors' responses may be influenced by their positions.

Findings for senior woman administrators. For SWAs, Revenue is the only factor that significantly differs from four factors, according to paired samples t-tests, and exhibits adequate effect sizes to substantiate differences. This suggests that SWAs believe Revenue most incentivizes institutions to consider changes in conference affiliation and is a highly influential factor. In addition to the significant difference result from paired samples t-tests, the effect size associated with the Revenue/Competitive Balance pair is the largest among SWAs which suggests that Competitive Balance is the least influential factor. Findings from the overall sample suggest both Academic Prestige and Revenue most incentivize an institution to consider a change in athletic conference affiliation. Findings from SWAs suggest a slight difference from the overall sample indicating that SWAs' responses may be minimally influenced by their positions.

Findings for faculty athletic representatives. For FARs, although paired samples t-tests indicate Revenue and Academic Prestige are significant, only Revenue significantly differed from more than multiple factors and exhibits effect sizes to substantiate differences. This suggests that FARs believe Revenue is a highly influential factor in regard to institutions' decisions to consider a change in conference affiliation. In addition to the significant difference result from paired samples t-tests, the effect sizes in comparisons involving Competitive Balance are the largest among FARs which suggests it is the least influential factor. Findings from the overall sample suggest Academic Prestige and Revenue most incentivize an institution to consider a change in athletic conference affiliation, findings from FARs suggest seem to support that indicating that FARs' responses are not influenced, or are minimally influenced by their positions.

Each of the above findings must be qualified because despite acceptable effect sizes, the appropriate power level ($\beta \geq .8$) is not achieved in all cases which influences the inclusion of a false discovery, or Type-II error. Among presidents, significant comparisons exhibited appropriate power. For athletic directors, the Team Travel/Athletic Prestige comparison did not exhibit appropriate power. For SWAs, each of the Revenue/Athletic Prestige, Revenue/Market, and Revenue/Team Travel pairs did not exhibit appropriate power. Finally, for FARs the Revenue/Market pair did not exhibit appropriate power. This limitation is addressed in more detail in Chapter 5.

Additional findings. Because the findings above reflect results from a series of independent t-tests which compare factor means, a supplemental analysis was appropriate to determine if similar results emerged. A repeated measures analysis of variance (ANOVA) examined the differences in factor means across the overall sample and the

difference in factor means between institutional administrator types. Because within-subjects effects indicate a significant difference $F(2.01, 144) = 4243.61$, it is concluded that at least one individual rates factors differently than others in the overall sample. LSD post-hoc contrasts assist in identifying which means differ significantly. LSD post-hoc results are presented in Table 12

Table 12

Least Significant Differences Post-hoc Contrasts

| Factor | Mean | Mean Difference | Sig. |
|--------------------------|-------------|-----------------|------|
| Revenue | 3.84 | | |
| Academic Prestige | 3.79 | .05 | .163 |
| Team Travel | 3.66 | .18 | .000 |
| Athletic Prestige | 3.56 | .28 | .000 |
| Market | 3.45 | .39 | .000 |
| Competitive Balance | 2.95 | .89 | .000 |
| Academic Prestige | 3.79 | | |
| Team Travel | 3.66 | .13 | .000 |
| Athletic Prestige | 3.56 | .23 | .000 |
| Market | 3.45 | .34 | .000 |
| Competitive Balance | 2.95 | .84 | .000 |
| Team Travel | 3.66 | | |
| Athletic Prestige | 3.56 | .10 | .833 |
| Market | 3.45 | .21 | .145 |
| Competitive Balance | 2.95 | .71 | .000 |
| Athletic Prestige | 3.56 | | |
| Market | 3.45 | .11 | .000 |
| Competitive Balance | 2.95 | .61 | .000 |
| Market | 3.45 | | |
| Competitive Balance | 2.95 | .50 | .000 |

Note: Bolded factors indicate those with which comparisons are made
 $\alpha = .05$

The p -values illustrated in Table 12 indicate that Revenue, Academic Prestige, and Competitive Balance are factors that differ significantly. Revenue and Academic Prestige appear to both be significantly greater than the remaining factors while Competitive Balance is not significantly greater than any factor. There does not appear to be a significant difference between Team Travel, Athletic Prestige, and Market-that is, Team Travel, Athletic Prestige, and Market may be considered equal, statistically.

Results of repeated measures ANOVA indicate that Revenue and Academic Prestige are two factors that may serve as more of an incentive for an institution to consider a change in athletic conference affiliation than others. Results of repeated measures ANOVA also indicate that Competitive Balance may least serve as an incentive for an institution to consider in athletic conference affiliation. The Market, Team Travel, and Athletic Prestige factors may serve as little incentive, if any, for an institution to consider a change in athletic conference affiliation. Overall, findings from the repeated measures ANOVA align similarly with those findings from the series of t-tests. The findings from Research Questions #1 through #3 help to address Research Question #4, presented in Chapter 5.

Summary

The results of Research Question #1 indicate that there are factors that serve as incentive for an institution to engage in conference realignment. The exploratory factor analysis indicates that six factors exist: Market, Revenue, Competitive Balance, Team Travel, Academic Prestige, and Athletic Prestige. The Results from Research Question #2 indicate that there are some factors that serve as more of an incentive for an institution to engage in conference realignment than other factors. Results suggest Revenue and Academic Prestige are most influential. Generally, results from Research Question #3 suggest that institutional administrator type influences responses. Results from these three research questions help in addressing Research Question #4. A discussion as to why six factors emerged, why the three factors highlighted above emerged as more influential than other factors, and why findings from the overall sample and each sub group do not exactly mirror each other is addressed in detail in Chapter 5.

Chapter 5

DISCUSSION

This chapter provides an overview of the study by revisiting the purpose of the study and findings of the research questions. The chapter also addresses the extent to which principal-agent theory helps to understand the relationship between institutions and their conferences through the realignment process. Finally, implications for scholars and practitioners of both higher education and intercollegiate athletics are addressed including limitations of this study and future directions for research.

Overview of the Study

The purpose of this study is to investigate what factors may serve as incentive for institutions to realign with a particular conference based on the perceptions of identified. In addressing the study's research questions, a comprehensive review of literature related to higher education, intercollegiate athletics, athletic conferences, and principal agent-theory suggest 35 items incentivize institutions to consider a change in athletic conference affiliation. Additionally, the literature review led to the identification of four institutional administrators that help to oversee intercollegiate athletics on their respective campuses and provide leadership on issues such as conference realignment: institution presidents, athletic directors, senior woman administrators, and faculty athletic representatives. An in-depth discussion addresses each research question.

Research Question #1: What factors serve as incentives for an institution to consider a change in conference affiliation?

An exploratory factor analysis (EFA) addressed the first research question. The EFA produced six factors accounting for 59.34% of the variance in the factor solution: Market, Revenue, Competitive Balance, Team Travel, Academic Prestige, and Athletic Prestige. Five of the factors (excluding Market) are consistent with the theorized factor solution which helped to guide the study. The Market factor emerged through the EFA when the theorized Exposure and Alumni (Fan) Proximity factors collapsed into one factor. A closer examination of the components that loaded onto each factor, as listed by their corresponding survey item number, helps to explain each factor's emergence within the context of the literature. A full list of survey items is found in Appendix H.

Market. The Market factor was not previously conceptualized. The conceptualized Exposure and Alumni (Fan) Proximity factors collapsed into one factor. The conceptualized Exposure factor refers to the reach and ability to engage new and emerging markets for the purposes of drawing attention to an institution and/or conference, while the conceptualized Alumni (Fan) Proximity factor referred to the geographic footprint an athletic conference claims for the purposes of engaging fans, alumni, and boosters of member institutions and the conference. The operationalized definitions of these two theorized factors and the development of the new factor, made the name "Market" appropriate. Market, therefore, is operationalized in this study as: Endearment to external constituents in order to enhance the overall reputation and/or develop the brand of member institutions and/or the conference in geographic areas. External constituents in this context include fans, alumni, and business partners such as television networks and corporate sponsors. This is consistent with external constituents identified by Bok (2004), Covell and Barr (2010), and Toma (1999). The development of

this new factor warrants further examination. The following items comprise the Market factor:

Item #11. Access to new and emerging markets.

Item #12. Ability to attract potential faculty through conference affiliations.

Item #13. Ability to attract potential students through conference affiliations.

Item #14. Enhanced institutional profile.

Item #15. Institutional brand development.

Item #31. A connection to alumni/fan groups in new markets.

Item #33. Charitable contributions from alumni/fan groups.

Item #34. Ability to effectively build brand with alumni/fan groups.

Item #35. Indirect financial support.

Toma (1999) indicates that universities devote a great deal of resources towards promoting a positive identity to several external constituents (item #15. Institutional brand development; item #34. Ability to effectively build brand with alumni/fan groups). In a similar vein, Bok (2004) equates a university's intercollegiate athletic program as the main portal for which external constituents gain a glimpse and connection to the university at large (item #15). Perline and Stoldt (2007) indicate the exposure athletic programs and their conference affiliations provide member institutions the opportunity to present themselves to new and emerging markets (item #11. Access to new and emerging markets). This in turn may help to attract top faculty (Carmichael, 2002; Sweitzer, 2009),

which yielded item #12; and students (Carmichael, 2002; Groza, 2010; Sutter & Winkler, 2003; Sweitzer, 2009; Tucker, 2004; Tucker, 2005), which yielded item #13. This may positively impact an institution's reputation and further the development of an institution's brand (item #34) as indicated by Carmichael (2002), Groza (2010), Sweitzer (2009) and Toma (1999).

A connection with fans and alumni in new markets (items #11 and #34) helps to reaffirm a sense of community and serves as an avenue for them to make financial contributions towards the university and/or its athletic programs (Carmichael, 2002; Flowers, 2007; Frank, 2004; Sutter & Winkler, 2003; Tucker, 2004), as illustrated by item #33 (Charitable contributions from alumni/fan groups) and item #34.

It seems that forging a presence in a particular geographic region and reaching key constituents are important to institutions and can be achieved through conference realignment. This factor is comprised of nine items, which may indicate that the factor captures too much data making it too difficult to explain (Kachigan, 1982). However, in the context of this study's findings, the literature clearly helps to explain why Market emerged as a factor.

Revenue. Revenue refers to money coming into member institutions by way of association with a particular conference in the form of game guarantees, attendance, and conference wide agreements with external constituents. Quirk (2004) and Sutter and Winkler (2003) have each identified financial resources as a determinant to institutional and conference decision making as revenue is a key component in acquiring resources,

buoying capital projects, and advancing institutional initiatives both inside and outside of the athletics department (Covell & Barr, 2010). Four items comprise the Revenue factor:

Item #7. Conference's access to revenue generating post-season opportunities.

Item #8. Conference's access to television/media broadcast rights packages.

Item #9. Ability for the conference to generate revenue through ticket sales.

Item #10. Opportunities for revenue from licensing corporate sponsorships and donations through conference affiliation.

Postseason games and tournaments provide millions of dollars in revenue to conferences that is split between members (Suggs, 2004; Sweitzer, 2009). For example, NCAA Division-I college football's new playoff and bowl game format is expected to award an average of nearly \$70 million a year to each conference annually for 12 years (Havard & Eddie, 2013; Mandel, 2012). Access to this type of revenue explains why item #7 (Conference's access to revenue generating post-season opportunities) loaded on the Revenue factor. Generally, in NCAA Division-I college athletics, revenue is primarily generated by television broadcast rights negotiated by the conference on behalf of its members (Covell & Barr, 2010; Dennie, 2012; Eckard, 1998; Groza, 2010; Perline & Stoldt, 2007; Quirk, 2004; Rhoads, 2004; Sutter & Winkler, 2003; Sweitzer, 2009; Tucker, 2005), which is why item #8 (Conference's access to television/media broadcast rights packages) loaded on Revenue. Fan interest and game attendance (item #9) has also been identified as a strong means for revenue, particularly in football and men's and women's basketball (Covell & Barr, 2010; Eggers, 2013; Groza, 2010; Price & Sen, 2003; Sweitzer, 2009; Toma, 1999).

Licensing, corporate sponsorships, and donations (item #10) seem to be institution/athletic program specific, however, data indicate that opportunities to gain revenue from these sources from conference affiliations incentivize conference realignment. Groza (2010) confirms that apparel sales and corporate sponsorship agreements are healthy streams of revenue for institutions to consider in regard to realignment decisions which is also supported by Frank (2004) who indicates that donations from fans, alumni, and boosters are also a determinant for realignment decisions. The opportunities for financial gain and stability play a key role in realignment decisions and support the findings in this study.

Competitive balance. Competitive Balance refers to the equity among institutions within a conference in regard to athletic competition, facilities and amenities, and finances to support athletic programs. Institutions that are members of the same conference typically exhibit such equity (Covell & Barr, 2010). Rhoads (2004) indicates that individual conferences take the lead in conference realignment to assure competitive balance. Suggs (2004) believes that competitive balance affords conferences opportunities to manage their brand as highly competitive or strong in intercollegiate athletics. Seven items comprise the Competitive Balance factor:

Item #1. Parity to access post-season.

Item #2. Parity to better position in win-loss standings.

Item #3. Comparable facilities.

Item #5. Ability to compete athletically.

Item #6. Fan interest in out of conference competition.

Item #18. Lack of national championships won by member institutions.

Item #32. Lack of an existing fan base in new conference.

Perline and Stoldt (2007) present the issue of conference realignment as fueled by parity (item #1 and item #2) in their examination of the Big 12 Conference, suggesting a level playing field (items #1, #2, and #5) may help to fuel fan interest (item #32) and shape the perception of a conference (item #6). The issue of parity in conferences (items #1 and #2) is also supported by Quirk (2004) and Sutter and Winkler (2003) who cite it as a key characteristic of conferences along with equality in resources such as facilities (item #3). Similarly, Quirk (2004) and Sutter and Winkler (2003) state the homogeneity of financial resources amongst competing conference members as a key factor in realignment decisions. For example, a conference whose existing members spend \$50 million on athletics annually, may not be an appropriate fit for a potential member school that spends \$20 million on its athletics programs annually. Although comparable facilities is likely a subset of broader financial resources (or vice versa), it is speculation in this study that financial resources as identified by Quirk (2004) and Sutter and Winkler (2003) are associated with item #3. Because there is no literature that explicitly states why item #18 (Lack of national championships won by member institutions) emerged on Competitive Balance, speculation suggests the item's similarity with items #1 and #2 related to parity. This finding may warrant further research.

Team travel. Team Travel refers to the geographic footprint an athletic conference occupies in regard to member institutions and intra-conference competition. Athletic conferences have typically maintained a degree of regional homogeneity for the purposes of game/event scheduling, travel for competition, and certain geographic

rivalries (Covell & Barr, 2010; Sweitzer, 2009). Five items comprise the Team Travel factor:

Item #26. Regional proximity to conference member institutions.

Item #27. Scheduling of out of conference competition.

Item #28. Missed class time for student-athletes due to travel for competition.

Item #29. Rivalries with other conference member institutions.

Item #30. Scheduling of conference competition.

The presence of an institution within regional proximity may serve as motivation for aligning with a particular conference (item #26). Geographic competition produces pride and superiority for the victor in its particular region (Sweitzer, 2009), as item #26 illustrates. Perline and Stoldt (2007) highlight the formation of the Big 12 Conference in 1995 in discussing the conferences regional presence generally across the Southern Midwest and Central plains of the United States (item #26). This type of proximity plays a key role in traveling to scheduled conference competitions (item #26; item #30), which helps create and maintain rivalries (Dennie, 2012), as illustrated by item #29. Havard and Eddy (2013) indicate that one aspect which defines rivalry in sports is proximity of opponents (item #26; item #29). Duderstadt (2003a) highlights the point of scheduled competition (item #27; item #30) as a byproduct of the demands of regional and national television schedules in men's college basketball dictates team scheduling, particularly within the conference (item #30). Student-athletes are the individuals who compete and travel to competition which often results in missed class time (item #28). Each of these

scholars indicate that issues related to scheduling, travel, and rivalries are considerations of conference realignment decisions. In the context of this study's findings, the literature helps to explain why Team Travel emerged as a factor.

Academic prestige. Academic Prestige refers to the overall academic profile of an athletic conference derived from the composition of its members. One of the defining characteristics of an athletic conference is the collective academic profile of its member institutions as it helps to portray a reputation and guide institutional ambitions (Groza, 2010; Shulman & Bowen, 2002; Sweitzer, 2009). Three items comprise the Academic Prestige factor:

Item #21. Similarity of academic profiles among member institutions.

Item #22. The influence that the academic reputation of a conference may have on your institution's academic profile.

Item #23. The influence that your institution's academic profile may have on the academic reputation of the conference.

Sweitzer (2009) indicates that competition with institutions similar in academic profile (item #21) may serve as a motivating factor for an institution to change conference affiliation. A level of academic excellence may influence an institution to align its ambitions with a particular conference (Sweitzer, 2009; Carmichael, 2002), as illustrated by items #21 and #22. Shulman and Bowen (2002) note that in the event academically prestigious conferences admit powerful athletic institutions with lesser academic profiles, the two sides may struggle to adapt to each other (item #22; item #23). The academic component of intercollegiate athletics and conference affiliation seems apparent.

Although this factor retained less than four to six components, which suggests it is likely not as strong of a homogeneous concept (Kachigan, 1982), in the context of this study's findings, the literature helps to explain why Academic Prestige emerged as a factor.

Athletic prestige. Athletic Prestige refers to the overall athletic profile of an athletic conference derived from the composition of its members. Naturally, intercollegiate athletics are the epicenter of conference realignment, so it is not surprising that the Athletic Prestige factor emerged in this study. The Athletic Prestige factor is presented next although it should be noted that, because the factor comprises three components, it is not as tenable as one that comprises four to six components (Kachigan, 1982):

Item #16. Overall athletic quality of the conference.

Item #17. Win totals by member institutions.

Item #19. Performance of conference members.

A key interpretation of the Athletic Prestige factor is that it is synonymous with the quality of an athletic conference (item #16). Quality of conference may influence revenue opportunities from television/media broadcast rights, game attendance, exposure, and fan interest for conference members (Carmichael, 2002; Eckard, 1998; Groza, 2010; Perline & Stoldt, 2007; Rhoads, 2004; Sutter & Winkler, 2003; Sweitzer, 2009; Tucker, 2004; Tucker, 2005; Toma, 1999). Quality of conference has also been identified as a suitable measure for conference comparisons when accounting for membership tenure, size, and success between the lines of play (Groza, 2010; Quirk, 2004), as illustrated by all three items. Groza (2010) and Price and Sen (2003) indicate that institutions typically align

themselves with other institutions that fit a similar athletic profile. It is speculation, but drawing connections from these indications, similarity in conference members athletic profiles may affect the conference's athletic reputation overall (item #16). Conferences in which members exhibit similar athletic profiles and similar appeal (item #16) tend to also exhibit stability, that is, they do not engage in realignment as frequently as conferences that experience wide differences among members (Quirk, 2004). In the context of this study's findings, the literature helps to explain why Athletic Prestige emerged as a factor.

Additional findings. Outside of the six factors that emerged, it is appropriate to comment on findings related to items that did not load on any factor. Four of thirty-five items did not load on any factor at all:

Item #4. Wide differences in annual operating budget among conference members.

Item #20. Short-term relationships between conference and member institutions.

Item #24. Prospective student demand at conference member institutions.

Item #25. Prospective faculty employment interest at conference member institutions.

The fact that these four items failed to load on any factor suggests they have no bearing on an institution's realignment decisions. It was theorized that item #4 would load on the Competitive Balance factor, as Quirk (2004) as well as Sutter and Winkler (2003) suggest financial heterogeneity among member institutions is a characteristic of conferences.

However, the wording of item #4 intimated to participants that wide differences in annual

operating budgets among conference members serves as *incentive* for institutions to consider a change in conference affiliation. Had the item been worded to suggest similarities in annual operating budgets among conference member serves as an incentive, perhaps it would have loaded appropriately. The fact that item #4 failed to load, given the wording of the item, actually supports the assertions of Quirk (2004) and Sutter and Winkler (2003) in regard to financial heterogeneity as a determinant of realignment decisions.

In regard to item #20, Covell and Barr (2010), Groza (2010), and Quirk (2004) indicate long-term stability between member institutions and conferences as influential as it relates to conference affiliation. Although the impetus for this study was to examine why there has been so much conference mobility in recent years (i.e. lack of long-term stability), many institutions have maintained long-term relationships with their conferences and it is believed conference realignment occurs in order to achieve long-term stability (Covell & Barr, 2010; Groza, 2010; Quirk (2004). Similar to item #4, the wording of item #20 may have influenced responses because it suggests short-term relationships between conference and member institutions serves as *incentive* for institutions to consider a change in conference affiliation. From this standpoint, it makes sense why this item did not load and it suggests that long-term stability is actually an incentive for institutions in regard to conference realignment.

Items #24 and #25 are “dummy items.” Their inclusion provided the ideal number of items to appropriately conduct an EFA. Comrey and Lee (1992), Kachigan, (1982), and Williams, Brown, and Onsman, (2010) indicate an appropriate rule to follow for the minimum number of items is $p = 3 \times k$, but it is ideal to adhere to $p = 5 \times k$, where p

represents items and k represents factors. Additionally, the inclusion of dummy items produced clarity in identifying the factor structure because, by nature, dummy items should form their own independent factor (Comrey & Lee, 1992; Williams, Brown, and Onsmann, 2010). These two items did in fact form their own single factor, but it was not suitable for inclusion in the final factor solution.

Also in regard to individual items, the theorized solution retained five items on each of the seven factors. In this study, items did not load across factors as equally. For example, the six-factor solution produced as many as nine items on the Market factor and as little as three items on the Academic Prestige and Athletic Prestige factors. However, it is not uncommon for factors with less than four components or greater than six components to be too weak of a construct or too difficult to explain, respectively (Kachigan, 1982).

Research Question #2: Do some factors serve as more of an incentive for an institution to consider a change in athletic conference affiliation?

Equally important to the research is whether some factors serve as more of an incentive for institutions to consider a change in athletic conference affiliation than others. Although there is representation from four different institutional administrator types and their day-to-day roles differ, their cumulative perspectives provide an overall viewpoint of the institution's athletic programs. Revisiting some of the literature may help to explain these findings.

According to Covell and Barr (2010), institutions typically align with athletic conferences so that their own interests and those of the conferences are met through a

symbiotic arrangement. Because different institutions may have different interests, no one single factor emerged as more of an incentive for an institution to consider a change in conference affiliation, although it does appear that Revenue and Academic Prestige most incentivize institutions to consider changes in conference affiliation and are highly influential. To better understand why Revenue and Academic Prestige emerged in this manner, each is addressed in detail. The Competitive Balance factor is also addressed to understand why it appears to least incentivize conference realignment decisions.

Revenue. Revenue's mean factor value rates the highest factor among the overall sample in this study ($M = 3.84$). Quirk (2004) and Sutter and Winkler (2003) have identified financial resources as a determinant to institutional and conference decision making. Covell and Barr (2010), Havard and Eddie (2013) and Mandel (2012) identify the rising expenses associated with intercollegiate athletics particularly at the NCAA Division-I level, as something that may fuel a desire for more revenue among institutions. If expenses are escalating at a pace characterized by Covell and Barr (2010), Havard and Eddie (2013) and Mandel (2012), it stands to reason that Revenue highly incentivizes institutions to consider changes in conference affiliation.

Academic prestige. Academic Prestige's mean factor value rates as the second highest factor ($M=3.79$) among the overall sample. The NCAA mandates that amateurism, the student-athlete experience, and education are the pillars of intercollegiate athletics (NCAA, 2013). Because the enterprise of intercollegiate athletics could not function without the higher education institutions that support them, member institutions' must ensure that their athletic programs operate grounded in the ideals of amateurism, the student-athlete experience, and education (Bok, 2004; Covell & Barr, 2010; Duderstadt,

2003c). Because these authors list education as one of the three pillars of intercollegiate athletics, it stands to reason that the mean value for the Academic Prestige factor would be highly rated. Additionally, conference member institutions typically share similar academic profiles. For example, the Big Ten Conference is home to, generally, large, public, flagship, research intensive institutions (Covell & Barr, 2010). Logically, when schools evaluate a change in conference affiliation, the academic fit is also evaluated.

A number of literature sources explain why the Revenue and Academic Prestige factors emerged as those that most incentivize institutional conference realignment decisions. However, Competitive Balance appears to least incentivize these decisions. This finding warrants further examination and is addressed next.

Competitive balance. Competitive Balance's mean factor value is the lowest rated factor in the overall sample ($M=2.95$). Perline and Stoldt (2007) indicate a level playing field within a conference may produce a favorable perception of the conference. However, a balanced conference as posed in this context, may not be perceived as favorable. Consider the case in which all members of a conference are highly competitive. Members, as part of the intra-conference schedule, may continually beat one another resulting in multiple losses for all members. Although speculative, it may be that the administrators surveyed in this study actually do not see equality across conferences as beneficial, particularly if the administrators were already in a balanced conference. In this sense, Competitive Balance may not be an incentive to realign.

Research Question #3: To what degree do perceptions among institutional administrators differ in regard to incentives to change conference affiliation?

The data analyzed for RQs #1 and #2 were drawn from a sample of 148 institutional administrators charged with intercollegiate athletics oversight at their respective institutions: presidents, athletic directors, senior woman administrators, and faculty athletic representatives. Though it was appropriate to pool responses for the purposes of factor analysis and overall factor comparison, it is also appropriate to compare the mean values across the different groups because participant's day-to-day roles differ. Group type may influence views on conference realignment different than the overall sample. In the same way that paired samples t-tests addressed Research Question #2, the t-tests also address Research Question #3 except the data file is split according to the four institutional administrator types. In the context of this study, comparisons in which a single factor is significantly greater than at least two factors, with adequate effect sizes to substantiate those differences are considered influential.

Presidents and athletic directors. Team Travel is the only factor that emerged as highly influential among presidents and athletic directors, suggesting that there is disagreement between the presidents and athletic directors as a group and the overall sample. This suggests that presidents' and athletic director's responses are influenced by their positions. According to t-tests, it appears that Competitive Balance is the least influential factor to presidents, athletic directors, and those in the overall sample. A better understanding of these findings may be gleaned by placing them in the appropriate context of conference realignment.

As noted throughout this study, Team Travel refers to the geographic footprint an athletic conference claims in regard to member institutions and intra-conference competition. As such, the factor is a broader construct of items including regional

proximity and student-athlete well-being (i.e. missed class time due to travel). Covell and Barr (2010), Dennie (2012), Sweitzer (2009), and Price and Sen (2003) indicate that the presence of an institution within a state and across state lines may serve as motivation for aligning with a particular conference. The desire to compete against those intuitions within a certain regional proximity serves to showcase the university and endear it to key constituents (Toma, 1999). This seems to allude to the overall direction of the institution which has been identified as a chief concern for university presidents (Bok, 2004; Duderstadt, 2003a; Flowers, 2007; NCAA, 2013; Shulman & Bowen, 2002).

With regard to student-athletes' missed class time, team travel is identified as an issue of well-being (Duderstadt, 2003a; Hoffman, 2010; Pent, Grappendorf, and Henderson, 2007). Because students and student-athletes are integral to these institutions, their well-being is identified as paramount and is ostensibly an additional chief concern for university presidents and athletic directors (Bok, 2004). The findings in the context of the literature, help to explain why Team Travel emerged as the most influential factor among presidents and athletic directors. What is not fully clear is why the Academic Prestige and Revenue factors did not equally rate as important to presidents and athletic directors. This finding warrants future research.

Senior woman administrators. Of the two factors that emerged as most influential in the overall sample, only Revenue emerged as influential among senior woman administrators (SWAs), but it is significantly greater than four other factors (Athletic Prestige, Market, Team Travel, and Competitive Balance). This suggests that SWAs' responses are influenced by their positions, although minimally. Similar to findings from president, athletic directors, and the overall sample, Competitive Balance

emerged as the least influential factor. Team Travel did not emerge as a highly influential factor as it did among the president and athletic director respondent types. As noted, Team Travel as a concept embodies some issues related to student-athlete well-being for which many SWAs have involvement (Hoffman, 2010; Pent, et al, 2007; Tiell, et al, 2012). This finding warrants future research.

Faculty athletic representatives. Revenue and Academic Prestige both emerged as most influential among faculty athletic representatives (FARs) as in the overall sample. This is a unique discovery because only a single factor emerged as most influential among the other sub groups. This suggests that FARs' responses are not influenced by their position. As indicated in this study, FARs do not deal with the operations of the athletic department (Duderstadt, 2003c; NCAA, 2013). The Revenue factor emerged as influential among FARs despite the fact that they do not deal with athletic department operations. Although speculative, it may be that their role provides them insight regarding the influence of Revenue. Also, FARs are in place to ensure that issues related to academic life are at the forefront of the student-athlete experience. The fact that Academic Prestige emerged as influential supports the FARs' purview given their role related to student-athlete well-being in terms of academic life (Duderstadt, 2003c). Overall, it appears that FAR responses do not differ from the overall sample.

Covell and Barr (2010) and Duderstadt (2003) indicate that although presidents, athletic directors, SWAs and FARs maintain athletics oversight to various extents, their day-to-day roles differ. This may help to explain why the responses of the sub groups other than FARs differ from the overall, either exclusively or minimally. Outside of

speculation, it is not known why the FARs responses seem to mirror the overall sample. This finding may be appropriate for future research.

Research Question #4: To what degree does principal-agent theory help to understand the relationship between NCAA Division-I institutions and conferences?

Fleisher (1991) indicates that PAT has primarily been used to promote the understanding of resource exchanges vis-à-vis resource dependence. There are six key components to PAT (Eisenhardt, 1989): 1) The principal, 2) The agent, 3) Asymmetric information, 4) Agency costs, 5) Slippage, and 6) Incentive. PAT relies on the relationship between a principal and an agent. Representing the principal, the agent's services are contracted when the principal is unable or unwilling to perform specified tasks or when the principal's cost of doing business would outweigh that of the agent's (Fleisher, 1991). PAT suggests that when parties engage in an agency agreement, there is some sort of incentive in place so that interests are aligned and tasks executed (Eisenhardt, 1989; Fleisher 1991).

The six factors that emerged are indicative of participants' views of them as incentives for their institutions to consider a change in conference affiliation. It appears that institutions, as the principal, are unable to achieve or maximize Revenue, Academic Prestige, Team Travel, Athletic Prestige, Market, and Competitive Balance independently. Findings of this study indicate that conferences, as the agent, are able to incentivize affiliations with individual institutions through the identified factors. Further, it also appears that priority incentives exist as Revenue and Academic Prestige emerged as highly influential.

Authors such as Covell and Barr (2010) and Duderstadt (2003c), indicate that institutions typically align with athletic conferences so that their interests can be met. This seems to support PAT as well as findings in this study, which in turn suggests that PAT effectively helps to understand the relationship between individual institutions and athletic conferences. A key component of PAT is the idea of multiple principals. In the context of conference affiliation and realignment, different institutions (multiple principals) may have different interests to extract from the conference affiliation. Fleisher (1991) and Lane (2008) have identified the condition in which multiple principals exist and hold agreements with a single agent. This type of relationship can be problematic as the multiple principals may be asking the lone agent to perform contrary duties (Lane, 2008). In the context of the multiple principal issue, Revenue may be more of an incentive to one faction of conference members while Academic Prestige may be more of an incentive to another faction.

Implications

The implications of this research offer practical benefits to higher education administrators and intercollegiate athletics professionals. One outcome is the identification of the six factors that incentivize realignment decisions. A second outcome is the identification three factors that appear to be priority incentives. Administrators in higher education and intercollegiate athletics now have an explanation of factors that influence their decisions related to conference realignment (Revenue, Academic Prestige, Team Travel, Athletic Prestige, Market, and Competitive Balance) and these factors may help to initiate a discussion among senior leadership in regard to realignment decisions.

A third outcome is a greater understanding of the relationship between institutions and conferences particularly as it relates to the PAT framework in this study. This study examined factors as incentives from the view point of institutions as the principal and conferences as the agent. As Revenue emerged as a highly influential factor and therefore incentive, it may be the case that an institution, as the principal, aligns with a particular conference, as the agent, in order to maximize the institutional share of Revenue the conference can provide. However, it may be the case that a conference, as a principal, seeks to align with a conference, as agent, to increase conference wide Revenue due to the high profile of that particular institution. Examining conference realignment in the contexts provided can help intercollegiate athletics and higher education professional reach informed decisions about the issue.

Limitations

There are a number of limitations in this study that can be addressed in future research. Self-selection bias certainly played a role in this study. Of the 1,266 participants that were solicited for participation in this study, only 203 responded and only 148 participants were included in this study. This suggests that an overwhelming number of potential participants decided to not participate on their own volition. In a similar vein, because this study was anchored to retrievable email addresses of identified participants, all potential participants were not solicited simply because email addresses were not made available. Of the 148 participants, some responses may have been provided under the context that such responses are considered acceptable of their status and position rather than their true perceptions.

This study examines perceptions specifically related to presidents, athletic directors, senior woman administrators (SWAs), and faculty athletic representatives (FAR) at NCAA Division-I institutions. Response rates for each of these groups was much lower than anticipated as only 17 of 300 presidents solicited for participation actually participated (5.6%). This was similarly the case for athletic directors (10.5%), senior woman administrators (13%), and faculty athletic representatives (16.5%). These results make it inappropriate to generalize findings to the overall population of each group. Findings from the FAR subgroup are similar to those of the overall sample. Neither of the other subgroups seems to be as similar to the overall sample. Because the FAR sub group is the largest in the study (n=51), overall findings may have been influenced.

Additionally, the study focused on those administrators at the NCAA Division-I level so it would also be inappropriate to generalize findings to the NCAA Division-II and Division-III levels in which there are approximately 700 more presidents, athletic directors, senior woman administrators, and faculty athletic representatives each (NCAA, 2013). Further making generalizability inappropriate, NCAA Division-II and Division-III institutions operate at a much different scale and scope than Division-I institutions (NCAA, 2013).

Sample size was certainly an issue in this study. Ideal sample size based on the parameters of this study for an exploratory factor analysis (EFA) is recommended as a minimum of 175 participants (Comrey & Lee, 1992; Kachigan, 1982; Williams, Brown, & Onsman, 2010). This study included 148 participants which was still sufficient to conduct the EFA but not ideal. In regard to paired samples t-tests, Slate and Rojas-

LeBouef (2012) suggest a sample size of at least 30 pairs to conduct appropriate t-tests. This study examined comparisons of factor pairs and not characteristics of the participant sample. Whether there was a sample size of 10 or 100, it was the pair combination of the six factors that was examined. However, it was useful to split the data file by respondent type to understand any deviations from the overall sample. Additionally, the appropriate level of power was not achieved in all instances which limits the interpretation and generalizability of results. Related to the follow up repeated measures analysis of variance procedure, a more sophisticated analysis would have examined differences within a respondent type across scales. Because the appropriate sample size did not exist across all groups, it was not appropriate to conduct this analysis.

This study examined 30 pairs of factors for each respondent type. It would have been more appropriate to examine 15 pairs each based on the six factors because if results indicated Factor A was significantly greater than Factor B, there is statistically no need to examine if Factor B is greater than Factor A. The analysis of 30 pairs rather than 15 pairs affects the family wise error rate per the Bonforrei method implemented in this study. More pairs reduce the FWE which influences the level of significance (Slate & Rojas-LeBouef, 2012). This also influences the level of power to declare appropriate discoveries which is related to effect size (Konietschke & Pauly, 2014).

In regard to multicollinearity, there appeared to be competing recommendations in assessing the issue. Field (2005) indicates that a determinant statistic greater than .00001 is ideal to suggest that multicollinearity is not a problem, while a non-zero determinant statistic is also indicated as suitable (Williams, Brown, & Onsman, 2010). This research followed the latter recommendation and thus, no items were deleted from

the study. Multicollinearity was addressed post-hoc and it is ideal to do so during the initial assessment of factor analysis (Field, 2005; Williams, Brown, & Onsman, 2012).

Finally, some of the items on the survey in this study were not appropriately anchored to principal-agent theory (Eisenhardt, 1989). The survey asked participants which items they believed serve as incentive to influence conference realignment. However, some items included the language “lack” which inappropriately influenced how participants viewed the item as an incentive. The language “lack” should be removed in future research in the interest of clarity. Full recommendations in regard to future research are addressed next.

Future Research

Although factors were identified as influential in the overall sample, those same factors were not exactly mirrored in the subgroups. For example, Academic Prestige and Revenue did not emerge as influential for presidents although it seems to fall under the purview of presidents (Bok, 2004; Duderstadt, 2003b). The Competitive Balance factor emerged as the factor that least incentivizes realignment but, other than speculation, it is unclear why this is the case. This warrants further examination.

The process by which this research project answered a set of questions naturally raises other questions for future research and exploration. One such question is do the factors that emerged in this study with these participants emerge when conference commissioners are surveyed? Conference commissioners operate the athletic conferences much like athletic directors operate athletic departments at their institutions, and are also appointed by the presidents of conference member institutions (Covell & Barr, 2010; Duderstadt, 2003c).

There is great value in the realignment factors established in this research study as it relates to other professions. How might the interests of higher education institutions with major athletic programs morph, if at all, when a television network becomes engaged in exclusive broadcasts for the conference? These factors should be examined by higher education administrators to understand how its balance sheet may be affected through a particular conference affiliation and broadcast agreement with a particular television network. A same study methodology of developing similar survey items, surveying a large sample of higher education administrators, asking them to indicate which items most incentivizes a certain decision, then analyzing results via factor analysis or a means comparison method could be useful.

Summary

Through an exploratory factor analysis, this study found that there are six definitive factors that incentivize NCAA Division-I institutions to consider a change in athletic conference affiliation: Market, Revenue, Competitive Balance, Team Travel, Academic Prestige, and Athletic Prestige. In addition, some factors serve to incentivize conference realignment more than others, specifically Revenue, Team Travel, and Academic Prestige. This finding is of equal importance because it helps to clarify the strategic decision process of realignment. Generally, the institutional administrators in this study shared similar viewpoints in regard to what incentivizes realignment. There did appear to be slight differences in opinion which may be an excellent starting point for future research.

Finally, this research indicates that principal-agent theory is an appropriate framework with which to view conference realignment. The theory suggests that

incentive exists for two parties engaged in a contractual relationship. In the context of conference realignment, the factors that emerged in this study serve as the incentives for institutions and athletic conferences to affiliate. Although the research question related to the theory was not statistically analyzed, this finding is important because it allows us to better understand the relationship between institutions and conferences. It is also likely that the factors found in this study, or other unknown factors, serve as incentives for conferences to become affiliated with institutions. This may also be an excellent starting point for future research. Practitioners can use these factors to help inform some of their athletics and institutional decisions.

Appendix A

Comments from Expert Panel

Janelle Wells, Assistant Professor of Sport Management, University of South Florida

1. Make sure the relation statement from the beginning is always visible. I say this because I'm not sure of your delivery method (online/paper and pencil).
2. Question 1 oddly worded. A possible substitutue is "it is important for different conference member institutions' athletic programs to reach the post-season."
3. For ALL of your items, the response should be strngly disagree to agree (the incentive does not make sense). It is okay because you have referenc to the original statement.
4. Question 26 is a double barreled question and should be serparated because what if I agree that there is student demand but disagree for the admission selection?
5. Just a thought for Question 27: Does it matter if the conference is past, current, or just in general?
6. Not sure of question 33, and the sample you are targeting will be able to answer that effectively.
7. What does "indirect marginal" in question 25 mean?
8. Sometimes it is helpful to put one or two demographic questions at the start. I'd suggest the most imperative (conference affiliation).
9. Question 2 in the demographic section should also have an "other" option because there is an array of titles.
10. Question 2 may read better like this "When considering a change in conference affiliation, which sport or sports factors were considered most prominent (Check all that apply)." Also shoud have an option to write text.

Clayton Stoldt, Professor of Sport Management, Wichita State University

1. The survey does a nice job of covering the most relevant considerations in regard to conference membership.
2. I do think there is room for greater clarity in regard to a number of the response items. Would encourage you to review each to make sure it is as concise as possible. Example: I think #5 could simply say: Member institutions have similar academic profiles.

3. I understand the function of reverse items on a survey, but many of these statements read awkwardly and I believe they could lead to confusion among your respondents.

4. Are 2 and 8 the same item?

5. The one additional factor you may want to consider is the presence (e.g., Oklahoma-Oklahoma State) or absence (e.g., Texas A&M-Texas) of a particular rival within the conference.

Stephen Shaprio, Assistant Professor of Sport Management, Old Dominion University

1. Item #1 - If this is supposed to be a survey sent to administrators assessing their own institution and realignment, than why not word the question as “the ability for your institution...”

2. Items 1-2 the “is important” at the end makes it feel like it should be based on an agree-disagree scale. If you end the item before “is important” than incentive makes more sense.

3. Item 3 is definitely written for agree-disagree. The incentive anchor does not make sense here. Are you trying to get at whether a school believes having comparable facilities or competitive facilities is an incentive to be in a certain conference? Need to reword this.

4. Item 4 – Again, this is an agree-disagree question. I won’t note this every time from here on out, but make sure that the statement matches the anchor words so it makes sense to the respondent.

5. Item 4 – Member institutions as a whole in the conference or member institutions other than the respondent’s own institution?

6. Item 5-7 – could be reworded this could go for many of the items, but I will use this one as an example. If you are trying to measure reasons for an athletic dept to align with a certain conference, than similar academic profiles could make sense. However, I could see these written as “How are the following attributes incentives to align with a specific conference?”

a. Having similar academic profiles

b. Ensuring all member institutions contribute to the overall athletic quality of the conference

c. Regional proximity of member institutions

7. Item 8 is the same as Item 2

8. Item 9 - Need to be more clear. You are measuring how much an incentive it is to have schools in the conference reach the post-season to earn NCAA revenue distributions, so you have to phrase this more clearly.

9. Item 10 does not make sense. This needs to be more clear. Are you measuring the ability of the institution to attract faculty through conference affiliation? Who is filling the survey out? Would the athletic dept. care about this? Does a faculty member really care about this?

I am seeing some consistent issues with you items. There are two things you need to focus on in my opinion. First, you need to operationalize this measure in general and each sub-dimension. What exactly are you trying to measure in general and who is the audience? Second, the items need to match the anchor words. If you are asking respondents whether they think a certain attribute is an incentive for aligning themselves with a conference then the statements cannot be agree-disagree statements. Third, ask yourself what am I trying to measure with each item? Is the item actually measuring that attribute? Within the first dozen items I noticed this being an issue a few times.

Kevin Barefoot, Director of Sales and Marketing, Winthrop Intelligence

1. I don't see any major issues with the structure of the survey.

Gloria Nevarez, Senior Woman Administrator, Pacific-12 Conference

1. I'm a bit confused on some of the statements that are phrased in the negative. Example, "To what extent do the following items serve as incentive for your institution to affiliate with a particular athletic conference?" and in question #3 "Conference member institutions **SHOULD NOT** have similar facilities and amenities" ... not sure what you're asking here. If I'm a school considering a league asking me whether like or different facilities is an incentive makes sense, but the use of "should not" confuses me and I'm not sure how to answer. If I prefer similar facilities should I answer "no incentive"?
2. The use of the term lucrative may weed out information about television contracts or incentives that aren't "lucrative" but in fact may be more than an institution currently has. Thus incentives that are positives may not exactly be thought of as lucrative. When I think of lucrative I think of SEC/Big-12 type contracts but many schools out there make decisions to join other leagues with lesser TV contracts.
3. I might suggest adding a question related to student-athlete welfare as impacted by increased travel or travel that is much farther due to conference expansion.
4. I think you hit all the topics that are relevant.

Appendix B

Construction of Items and Theoretical Factors

| Item | Relates To | Literature | Theoretical Connection |
|--|------------------------------|---|---|
| Competitive Balance | | | |
| 1) The ability for different conference member institutions' athletic programs to reach the post-season is important. | Parity/postseason | Eckard, 1998; Groza, 2010; Sutter & Winkler, 2003 | The ability to achieve/maintain postseason parity may incentivize a change in affiliation |
| 2) The ability for different conference member institutions' athletic programs to lead in Win-Loss standings is important. | Parity/wins-loss | Eckard, 1998; Quirk, 2004; Sutter & Winkler, 2003 | The ability to achieve/maintain win/loss parity may incentivize a change in affiliation. |
| 3) Conference member institutions should <u>not</u> have similar facilities and amenities. ⁺ | Comparable facilities | Perline & Stoldt, 2007; Rhoads, 2004 | The ability to compete with members comparable in resources may incentivize a change in affiliation. |
| 4) Similar annual operating budgets among conference member institutions should not be considered. | Financial heterogeneity | Quirk, 2004; Sutter & Winkler, 2003 | The ability to compete with members comparable in resources may incentivize a change in affiliation. |
| 5) Conference member institutions should by competitive among each other athletically*. | Intra-conference competition | Covell & Barr, 2010 | The ability to compete with members comparable in athletic ability may incentivize a change in affiliation. |
| Revenue | | | |
| 6) Competition between conference member institutions attracts fans to games/events | Attendance | Groza, 2010; Perline & Stoldt, 2007; Sutter & Winkler, 2003 | The ability to draw meaningful attendance to games/events may incentivize a change in affiliation |
| 7) The composition of conference member institutions helps to provide access to lucrative post-season opportunities. | Postseason participation | Groza, 2010; Sweitzer, 2009 | The ability to access lucrative post-season opportunities may incentivize a change in affiliation |
| 8) The composition of conference member | TV rights | Eckard, 1998; Groza, 2010; Perline & | The ability to access/share revenue |

| | | | |
|--|----------------------------|---|---|
| institutions helps to provide access to lucrative television/media broadcast rights packages. | | Stoldt, 2007; Quirk, 2004; Rhoads, 2004; Sutter & Winkler, 2003; Sweitzer, 2009; Tucker, 2005 | from TV broadcast rights packages may incentivize a change in affiliation |
| 9) Conferences do <u>not</u> help to generate revenue for member institutions.* ⁺ | Ticket sales/seating | Carmichael, 2002; Frank, 2004; Groza, 2010; Shulman & Bowen, 2002 | The ability to share in specified conference generated revenue may incentivize a change in affiliation |
| 10) Revenue from ticket sales, licensing, corporate sponsorships, and donations are all important revenue sources for member institutions through their conferences. | Other/unspecified revenue | Carmichael, 2002; Frank, 2004; Groza, 2010; Shulman & Bowen, 2002 | The ability share in unspecified conference revenue may incentivize a change in affiliation |
| Exposure | | | |
| 11) Conferences can gain access to new and emerging markets through member institutions. | New and emerging markets | Perline & Stoldt, 2007 | The ability to showcase the institution to new/emerging markets may incentivize a change in affiliation |
| 12) Member institutions <u>can not</u> attract potential faculty members through conference affiliations. ⁺ | Faculty attraction/demand | Carmichael, 2002; Sweitzer, 2009 | The ability to showcase the institution to potential faculty may incentivize a change in affiliation |
| 13) Member institutions <u>cannot</u> attract potential students through conference affiliations. ⁺ | Student attraction/demand | Carmichael, 2002; Groza, 2010; Sutter & Winkler, 2003; Sweitzer, 2009; Tucker, 2004; Tucker, 2005 | The ability to showcase the institution to potential students may incentivize a change in affiliation |
| 14) Affiliation with a particular conference can enhance member institutions' overall profile. | Overall profile/reputation | Carmichael 2002; Groza, 2010; Sweitzer, 2009; Toma, 1999 | The ability to showcase and enhance the institution may incentivize a change in affiliation |
| 15) Member institutions can develop their brands through conference affiliations. | Brand building | Toma, 1999 | The ability to showcase and enhance the institution may incentivize a change in affiliation |

Athletic Prestige

| | | | |
|---|------------------------------|--|---|
| 16) Member institutions contribute to the athletic quality of the conference* | Quality of membership | Groza, 2010; Price & Sen, 2003; Quirk, 2004; Suggs, 2004 | The ability to be affiliated with other successful conference members institution may incentivize a change in affiliation |
| 17) Wins by member institutions contribute to the quality of the conference | Wins | Groza, 2010; Sutter & Winkler, 2003 | The ability to be regarded as a member of a successful conference institution may incentivize a change in affiliation |
| 18) National championships won by member institutions <u>do not</u> contribute to the quality of the conference. ⁺ | Championships | Groza, 2010; Quirk, 2004; | The ability to be regarded as a member championship caliber conference may incentivize a change in affiliation |
| 19) Conferences are evaluated based on various contributions of their members. | Inter-conference comparisons | Quirk, 2004 | The ability to be regarded as a member of a more favorable conference over others may incentivize a change in affiliation |
| 20) Conference <u>should not</u> maintain long-term relationships with member institutions. ⁺ | Long-term stability | Groza, 2010; Quirk, 2004 | The ability to maintain a long-term relationship with a conference may incentivize a change in affiliation |

Academic Prestige

| | | | |
|--|-------------------------------|--|--|
| 21) Member institutions of the same conference should have similar academic profiles* | Similar academic profiles | Carmichael, 2002; Groza, 2010; Shulman & Bowen, 2002; Sweitzer, 2009 | The ability to be affiliated with member institutions of a similar academic profile may incentivize a change in conference affiliation |
| 22) The academic reputation of a conference may influence member institutions academic profiles. | Conference influences members | Sweitzer, 2009 | The ability to be affiliated with member institutions of a particular academic reputation incentivizes a change in conference affiliation. |
| 23) The academic profiles of member institutions may influence the conference's academic reputation. | Members influence conference | Carmichael, 2002; Sweitzer, 2009 | The ability to be affiliated with member institutions of a particular academic reputation incentivizes a change in conference affiliation. |

| | | | |
|---|---------------------------|---|--|
| 24) Prospective student demand and admissions selectivity at member institutions <u>do not</u> indicate the academic reputation of the conference. ⁺ | Student attraction/demand | Carmichael, 2002; Groza, 2010; Sutter & Winkler, 2003; Sweitzer, 2009; Tucker, 2004; Tucker, 2005 | The ability to attract a particular type of student through conference affiliation incentivizes a change in conference affiliation |
| 25) Prospective faculty employment interest at member institutions indicates the academic reputation of the conference. | Faculty attraction/demand | Carmichael, 2002; Sweitzer, 2009 | The ability to attract a particular type of faculty through conference affiliation incentivizes a change in conference affiliation |
| Team Travel | | | |
| 26) Member institutions of a conference should be within regional proximity of one another* | Regional proximity | Perline & Stoldt, 2007; Sweitzer, 2009; | The ability to maintain regional homogeneity and accessible travel incentivizes a change in conference affiliation |
| 27) Scheduling of competition between member institutions of the same conference is more important than out-of-conference scheduling. | Scheduling | Duderstadt, 2003a; | The ability to schedule meaningful intra-conference game/events over non-conference games/events incentivizes a change in conference affiliation |
| 28) The academic well-being of student-athletes within the conference is an important consideration in conference scheduling. | Student-athlete concerns | Duderstadt, 2003a; Hoffman, 2010; Pent, Grappendorf, and Henderson, 2007 | Ensuring S-A well-being incentivizes a change in conference affiliation |
| 29) Establishing rivalries with other conference member institutions is not important. ⁺ | Rivalries (establishing) | Havard and Eddy , 2013; Price and Sen, 2003 | Establishing rivalries with member institutions incentivizes a change in conference affiliation |
| 30) Maintaining rivalries with other conference member institutions is important. | Rivalries (maintaining) | Havard and Eddy , 2013; Price and Sen, 2003 | Maintaining rivalries with member institutions incentivizes a change in conference affiliation |

**Alumni (Fan)
Proximity**

| | | | |
|--|--|--|---|
| 31) Member institutions can provide a connection to alumni/fan groups through conference affiliation*. | Game/event attendance or connection with fan bases | Groza, 2010; Price and Sen, 2003; Toma, 1999 | The ability to hold a connection with alumni/fan groups incentivizes a change in conference affiliation |
| 32) Member institutions <u>should not</u> maintain strong fan bases through conference affiliation. ⁺ | Game/event attendance or connection with fan bases | Groza, 2010; Price and Sen, 2003; Toma, 1999 | The ability to hold a connection with fan groups incentivizes a change in conference affiliation |
| 33) Maintaining a connection with alumni/fan groups through conference affiliation <u>does not</u> affect charitable contributions towards a particular member institution. ⁺ | Donor contributions | Carmichael, 2002; Flowers, 2007; Frank, 2004; Sutter and Winkler, 2003; Tucker, 2004 | The ability to gain financial support alumni/fan groups incentivizes a change in conference affiliation |
| 34) Member institutions can effectively build their brand with alumni/fan groups through conference affiliation. | Brand Building | Toma, 1999 | The ability to hold a connection with fan groups incentivizes a change in conference affiliation |
| 35) Indirect and marginal financial support for member institutions <u>can not</u> be gained through conference affiliation. ⁺ | Other/indirect support | Carmichael, 2002; Frank, 2004; | The ability to gain indirect support alumni/fan groups incentivizes a change in conference affiliation |

*Dummy item expected to load on that particular factor only

+Reverse scored item

Appendix C

Survey Items

Question

“To what extent do the following considerations serve as incentive for your institution to affiliate with a particular conference?”

1. Overall athletic quality of the conference
 2. Conference’s access to television/media broadcast rights packages
 3. Conference’s access to revenue generating post-season opportunities
 4. Enhanced institutional profile
 5. Scheduling of conference competition
 6. Regional proximity to conference member institutions
 7. Institutional brand development
 8. Similarity of academic profiles among member institutions
 9. Ability to compete athletically
 10. The influence that the academic reputation of a conference may have on your institution’s academic profile
 11. Parity to access post-season
 12. Rivalries with other conference member institutions
 13. Ability to effectively build brand with alumni/fan groups
 14. Ability for the conference to generate revenue through ticket sales
 15. Opportunities for revenue from licensing corporate sponsorships and donations through conference affiliation
 17. Missed class time for student-athletes due to travel for competition
 18. A connection to alumni/fan groups in new markets
 19. The influence that your institution’s academic profile may have on the academic reputation of the conference
 20. Access to new and emerging markets
 21. Ability to attract potential students through conference affiliations
 22. Indirect financial support
 23. Performance of conference members
 24. Charitable contributions from alumni/fan groups
 25. Prospective student demand at conference member institutions
 26. Fan interest in out of conference competition
 27. Win totals by member institutions
 28. Scheduling out of conference competition
 29. Comparable facilities
 30. Parity to better position in win-loss standings
 31. Wide differences in annual operating budget among conference members
 32. Short-term relationships between conference and member institutions
 33. Ability to attract potential faculty through conference affiliations
 34. Prospective faculty employment interest at conference member institutions
 35. Lack of an existing fan base in new conference
-

Appendix D

Statement of Informed Consent

You are invited to participate in a research study. The purpose of this study is to define and confirm factors that may serve as an incentive for institutions to realign with a particular conference. Literature has identified four institutional decision makers tasked with athletics oversight that ultimately represent institutional athletics decisions. Based on the perceptions of these administrators, this study seeks to understand if these factors serve as incentive for the institution to affiliate with a particular conference. This study will address to what degree principal-agent theory helps to understand the relationship between National Collegiate Athletic Association (NCAA) Division-I institutions and conferences.

You are being asked to participate in the study because you fit these criteria: You are a university/college president, athletic director, senior woman administrator, or faculty athletic representative at a NCAA Division-I institution. There are currently 351 NCAA Division-I institutions (NCAA, 2013). This study seeks participation from the four identified groups (presidents, athletic directors, senior woman administrators, and faculty athletic representatives at each NCAA Division-I institution (N=1,404). If you volunteer to participate in this study, you will be asked to do the following: Complete a survey administered via email by Qualtrics. The survey consists of 40 total items (35 related to what may incentivize your institution to realign with a particular conference, 5 related to institutional demographics). There will not be direct benefits to you as a participant in this study. However, we hope to learn if certain factors serve as incentive for the institution to affiliate with a particular conference.

There are risks involved in all research studies. This study may include only minimal risks. Because the study will be collecting participant information, there is very minimal risk as the only identifier collected is title/position. All data will be aggregated to report by categories, so there is no way to link an individual's data to report/findings. There will not be financial cost to you to participate in this study. The study will take up to 30 minutes of your time. You will not be compensated for your time. An executive summary of the findings/results of this study will be provided to all members of the population in this study. All information gathered in this study will be kept as confidential as possible. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for 3 years after completion of the study. After the storage time the information gathered will be destroyed. During this time, only the PI and the student investigator will have access to the data, thereby potential to connect participants to responses. Your participation in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with UNLV. You are encouraged to ask questions about this study at the beginning or any time during the research study.

I have read the above information and agree to participate in this study. I have been able to ask questions about the research study. I am at least 18 years of age. A copy of this form has been given to me.

I acknowledge the statement of informed consent

Appendix E

Exploratory Factor Analysis Specifications

| Criterion | Literature |
|--|--|
| Variables/factors; P = 5 x k = 35 variables | Comrey and Lee, 1992; Williams, Brown, and Onsman, 2010 |
| Sample size; N = 5 x p, N >100 to N = 10 x p, N >200 | Comrey and Lee, 1992; Williams, Brown, and Onsman, 2010 |
| Data screening; Mahalanobis squared distances | Comrey and Lee, 1992; Williams, Brown, and Onsman, 2010 |
| Correlation Analysis; Determinant >0 | Comrey and Lee, 1992; Field, 2005; Williams, Brown, and Onsman, 2010 |
| Factor extraction; Kaiser (factors = Eigen values > 1) Scree test | Comrey and Lee, 1992; Williams, Brown, and Onsman, 2010 |
| Factor rotation; Promax oblique Varimax orthogonal | Comrey and Lee, 1992; Williams, Brown, and Onsman, 2010 |

Appendix F

Paired Samples t-tests for all Factors (n=148)

| Factor | M | SD | t | Sig. (2-tailed) |
|----------------------------|-------------|------|--------|-----------------|
| Revenue | 3.84 | | | |
| Academic Prestige | 3.79 | 1.34 | .42 | .679 |
| Team Travel | 3.66 | 1.23 | 1.72 | .087 |
| Athletic Prestige | 3.56 | .89 | 3.83 | .000* |
| Market | 3.45 | .91 | 5.12 | .000* |
| Competitive Balance | 2.95 | .89 | 10.33 | .000* |
| Academic Prestige | 3.79 | | | |
| Revenue | 3.84 | 1.33 | -.42 | .679 |
| Team Travel | 3.66 | 1.06 | 1.48 | .142 |
| Athletic Prestige | 3.56 | 1.04 | 2.73 | .007 |
| Market | 3.45 | 1.03 | 3.96 | .000* |
| Competitive Balance | 2.95 | 1.09 | 9.32 | .000* |
| Team Travel | 3.66 | | | |
| Revenue | 3.84 | 1.23 | -1.72 | .087 |
| Academic Prestige | 3.79 | 1.06 | -1.48 | .142 |
| Athletic Prestige | 3.56 | .98 | 1.32 | .189 |
| Market | 3.45 | .96 | 2.65 | .009 |
| Competitive Balance | 2.95 | .89 | 9.70 | .000* |
| Athletic Prestige | 3.56 | | | |
| Revenue | 3.84 | .89 | -3.83 | .000 |
| Academic Prestige | 3.79 | 1.04 | -2.73 | .007 |
| Team Travel | 3.66 | .98 | -1.32 | .189 |
| Market | 3.45 | .81 | 1.54 | .127 |
| Competitive Balance | 2.95 | .85 | 8.72 | .000* |
| Market | 3.45 | | | |
| Revenue | 3.84 | .91 | -5.12 | .000 |
| Academic Prestige | 3.79 | 1.03 | -3.96 | .000 |
| Team Travel | 3.66 | .96 | -2.65 | .009 |
| Athletic Prestige | 3.56 | .81 | -1.54 | .127 |
| Competitive Balance | 2.95 | .89 | 6.94 | .000* |
| Competitive Balance | 2.95 | | | |
| Revenue | 3.84 | 1.04 | -10.33 | .000 |
| Academic Prestige | 3.79 | 1.10 | -9.32 | .000 |
| Team Travel | 3.66 | .89 | -9.70 | .000 |
| Athletic Prestige | 3.56 | .85 | -8.72 | .000 |

| | | | | |
|--------|------|-----|-------|------|
| Market | 3.45 | .89 | -6.94 | .000 |
|--------|------|-----|-------|------|

Note: Bolded factors indicate those against which other factors are compared

*** Indicates significant difference**

$\alpha = .002$

Paired Samples t-tests for Presidents (n=17)

| Factor | M | SD | t | Sig. (2-tailed) |
|----------------------------|-------------|------|-------|-----------------|
| Team Travel | 4.18 | | | |
| Academic Prestige | 4.00 | 1.20 | .61 | .554 |
| Revenue | 3.72 | .99 | 1.90 | .075 |
| Market | 3.58 | .88 | 2.80 | .013 |
| Athletic Prestige | 3.55 | .82 | 3.17 | .006 |
| Competitive Balance | 2.85 | .84 | 6.53 | .000* |
| Academic Prestige | 4.00 | | | |
| Team Travel | 4.18 | 1.20 | -.60 | .554 |
| Revenue | 3.72 | 1.19 | .97 | .348 |
| Market | 3.58 | .98 | 1.77 | .097 |
| Athletic Prestige | 3.55 | .96 | 1.94 | .070 |
| Competitive Balance | 2.85 | .89 | 5.37 | .000* |
| Revenue | 3.72 | .99 | -1.90 | .075 |
| Team Travel | 4.18 | 1.19 | -.97 | .348 |
| Academic Prestige | 4.00 | .76 | .75 | .463 |
| Market | 3.58 | .90 | .79 | .442 |
| Athletic Prestige | 3.55 | .78 | 4.62 | .000* |
| Competitive Balance | 2.85 | | | |
| Market | 3.58 | | -2.80 | .013 |
| Team Travel | 4.18 | .88 | -1.77 | .097 |
| Academic Prestige | 4.00 | .98 | -.75 | .463 |
| Revenue | 3.72 | .76 | .15 | .880 |
| Athletic Prestige | 3.55 | .88 | 3.54 | .002* |
| Competitive Balance | 2.85 | .85 | | |
| Athletic Prestige | 3.55 | | | |
| Team Travel | 4.18 | .82 | -3.17 | .006 |
| Academic Prestige | 4.00 | .96 | -1.94 | .070 |
| Revenue | 3.72 | .90 | -.79 | .442 |
| Market | 3.58 | .88 | -.15 | .880 |
| Competitive Balance | 2.85 | .72 | 4.02 | .001* |
| Competitive Balance | 2.85 | | | |
| Team Travel | 4.18 | .84 | -6.53 | .000 |
| Academic Prestige | 4.00 | .88 | -5.37 | .000 |
| Revenue | 3.72 | .78 | -4.62 | .000 |
| Market | 3.58 | .85 | -3.54 | .000 |
| Athletic Prestige | 3.55 | .72 | -4.02 | .001 |

Note: Bolded factors indicate those against which other factors are compared

*** Indicates significant difference**

Paired Samples t-tests for Athletic Directors (n=34)

| Factor | M | SD | t | Sig. (2-tailed) |
|----------------------------|-------------|------|-------|-----------------|
| Team Travel | 3.87 | | | |
| Academic Prestige | 3.85 | 1.09 | .10 | .061 |
| Revenue | 3.59 | 1.31 | 1.26 | .217 |
| Market | 3.56 | .94 | 1.94 | .000* |
| Athletic Prestige | 3.39 | .76 | 3.67 | .925 |
| Competitive Balance | 2.83 | .96 | 6.30 | .001* |
| Academic Prestige | 3.85 | | | |
| Team Travel | 3.87 | 1.09 | -.10 | .925 |
| Revenue | 3.59 | 1.55 | .99 | .328 |
| Market | 3.56 | 1.10 | 1.56 | .129 |
| Athletic Prestige | 3.39 | 1.08 | 2.48 | .018 |
| Competitive Balance | 2.83 | 1.14 | 5.24 | .000* |
| Revenue | 3.59 | | | |
| Team Travel | 3.87 | 1.30 | -1.26 | .217 |
| Academic Prestige | 3.85 | 1.55 | -.99 | .328 |
| Market | 3.56 | 1.03 | .17 | .868 |
| Athletic Prestige | 3.39 | 1.03 | 1.11 | .274 |
| Competitive Balance | 2.83 | 1.18 | 3.75 | .001* |
| Market | 3.56 | | | |
| Team Travel | 3.87 | .94 | -1.94 | .061 |
| Academic Prestige | 3.85 | 1.10 | -1.56 | .129 |
| Revenue | 3.59 | 1.03 | -.17 | .868 |
| Athletic Prestige | 3.39 | .76 | 1.27 | .213 |
| Competitive Balance | 2.83 | 1.00 | 4.23 | .000* |
| Athletic Prestige | 3.39 | | | |
| Team Travel | 3.87 | .76 | -3.67 | .001 |
| Academic Prestige | 3.85 | 1.08 | -2.48 | .018 |
| Revenue | 3.59 | 1.03 | -1.11 | .274 |
| Market | 3.56 | .76 | -1.27 | .213 |
| Competitive Balance | 2.83 | .68 | 4.83 | .000* |
| Competitive Balance | 2.83 | | | |
| Team Travel | 3.87 | .96 | -6.30 | .000 |
| Academic Prestige | 3.85 | 1.14 | -5.24 | .001 |
| Revenue | 3.59 | 1.17 | -3.75 | .000 |
| Market | 3.56 | 1.00 | -4.23 | .000 |
| Athletic Prestige | 3.39 | 3.39 | -4.83 | .001 |

Note: Bolded factors indicate those against which other factors are compared

*** Indicates significant difference**

Paired Samples t-tests for Senior Woman Administrators (n=44)

| Factor | M | SD | t | Sig. (2-tailed) |
|----------------------------|-------------|------|-------|-----------------|
| Revenue | 4.02 | | | |
| Academic Prestige | 3.69 | 1.11 | 2.00 | .052 |
| Athletic Prestige | 3.64 | .73 | 3.43 | .001* |
| Market | 3.43 | .83 | 4.74 | .000* |
| Team Travel | 3.34 | 1.06 | 4.31 | .000* |
| Competitive Balance | 3.02 | 1.06 | 6.24 | .000* |
| Academic Prestige | 3.69 | | | |
| Revenue | 4.02 | 1.11 | -2.00 | .052 |
| Athletic Prestige | 3.64 | .89 | .34 | .736 |
| Market | 3.43 | .87 | 1.99 | .053 |
| Team Travel | 3.34 | 1.05 | 2.22 | .032 |
| Competitive Balance | 3.02 | .97 | 4.58 | .000* |
| Athletic Prestige | 3.64 | | | |
| Revenue | 4.02 | .73 | -3.43 | .001 |
| Academic Prestige | 3.69 | .89 | -.34 | .736 |
| Market | 3.43 | .76 | 1.87 | .068 |
| Team Travel | 3.34 | 1.01 | 2.01 | .050 |
| Competitive Balance | 3.02 | .94 | 4.39 | .000* |
| Market | 3.43 | | | |
| Team Travel | 3.34 | .84 | .73 | .470 |
| Revenue | 4.02 | .83 | -4.74 | .000 |
| Academic Prestige | 3.69 | .87 | -1.99 | .053 |
| Athletic Prestige | 3.64 | .76 | -1.87 | .068 |
| Competitive Balance | 3.02 | .81 | 3.32 | .001* |
| Team Travel | 3.34 | | | |
| Revenue | 4.02 | 1.05 | -4.31 | .000 |
| Academic Prestige | 3.69 | 1.05 | -2.22 | .032 |
| Athletic Prestige | 3.64 | 1.01 | -4.39 | .050 |
| Market | 3.43 | .84 | -.73 | .470 |
| Competitive Balance | 3.02 | .73 | 2.86 | .007* |
| Competitive Balance | 3.02 | 1.06 | -6.24 | .000 |
| Revenue | 4.02 | .97 | -4.58 | .000 |
| Academic Prestige | 3.69 | .94 | -4.39 | .000 |
| Athletic Prestige | 3.64 | .81 | -3.32 | .001 |
| Market | 3.43 | .73 | -2.86 | .007 |
| Team Travel | 3.34 | | | |

Note: Bolded factors indicate those against which other factors are compared

*** Indicates significant difference**

Paired Sample t-tests for Faculty Athletic Representatives (n =51)

| Factor | M | SD | t | Sig. (2-tailed) |
|----------------------------|-------------|------|-------|-----------------|
| Revenue | 3.86 | | | |
| Academic Prestige | 3.80 | 1.39 | .31 | .756 |
| Team Travel | 3.64 | 1.22 | 1.26 | .213 |
| Athletic Prestige | 3.58 | .94 | 2.15 | .036 |
| Market | 3.36 | .88 | 4.07 | .000* |
| Competitive Balance | 3.02 | 1.03 | 5.85 | .000* |
| Academic Prestige | 3.80 | | | |
| Revenue | 3.86 | 1.38 | -.31 | .756 |
| Team Travel | 3.64 | .98 | 1.12 | .267 |
| Athletic Prestige | 3.58 | 1.14 | 1.39 | .171 |
| Market | 3.36 | 1.15 | 2.75 | .008 |
| Competitive Balance | 3.02 | 1.25 | 4.48 | .000* |
| Team Travel | 3.64 | 1.22 | -1.26 | .213 |
| Revenue | 3.86 | .98 | -1.12 | .267 |
| Academic Prestige | 3.80 | .95 | .51 | .612 |
| Athletic Prestige | 3.58 | 1.02 | 2.03 | .048 |
| Market | 3.36 | .81 | 5.53 | .000* |
| Competitive Balance | 3.02 | | | |
| Athletic Prestige | 3.58 | .94 | -2.15 | .036 |
| Revenue | 3.86 | 1.14 | -1.39 | .171 |
| Academic Prestige | 3.80 | .95 | -.51 | .612 |
| Team Travel | 3.64 | .84 | 1.87 | .068 |
| Market | 3.36 | .92 | 4.34 | .000* |
| Competitive Balance | 3.02 | | | |
| Market | 3.36 | | | |
| Revenue | 3.86 | .88 | -4.07 | .000 |
| Academic Prestige | 3.80 | 1.15 | -2.75 | .008 |
| Team Travel | 3.64 | 1.02 | -2.02 | .048 |
| Athletic Prestige | 3.58 | .84 | -1.86 | .068 |
| Competitive Balance | 3.02 | .86 | 2.81 | .007* |
| Competitive Balance | 3.02 | | | |
| Revenue | 3.86 | 1.03 | -5.85 | .000 |
| Academic Prestige | 3.80 | 1.25 | -4.48 | .000 |
| Team Travel | 3.64 | .81 | -5.53 | .000 |
| Athletic Prestige | 3.58 | .92 | -4.34 | .000 |
| Market | 3.36 | .86 | -2.81 | .007 |

Note: Bolded factors indicate those against which other factors are compared

*** Indicates significant difference**

Appendix G

Conference Representation

| Conference | Participants | % of all Participants |
|----------------------------------|--------------|-----------------------|
| America East Conference | 1 | 1% |
| American Athletic Conference | 6 | 4% |
| Atlantic 10 Conference | 7 | 5% |
| Atlantic Coast Conference | 4 | 3% |
| Atlantic Sun Conference | 4 | 3% |
| Big 12 Conference | 3 | 3% |
| Big East Conference | 7 | 5% |
| Big Sky Conference | 11 | 8% |
| Big South Conference | 5 | 3% |
| Big Ten Conference | 2 | 1% |
| Big West Conference | 2 | 1% |
| Colonial Athletic Association | 4 | 3% |
| Conference USA | 5 | 3% |
| Horizon League | 2 | 1% |
| Ivy League | 2 | 1% |
| Metro Atlantic Conference | 2 | 1% |
| Mid-American Conference | 5 | 3% |
| Mid-Eastern Athletic Conference | 3 | 2% |
| Missouri Valley Conference | 10 | 7% |
| Mountain West Conference | 9 | 6% |
| Northeast Conference | 3 | 2% |
| Ohio Valley Conference | 4 | 3% |
| Pacific-12 Conference | 2 | 1% |
| Patriot League | 3 | 2% |
| Southeastern Conference | 5 | 3% |
| Southern Conference | 8 | 6% |
| Southland Conference | 8 | 6% |
| Southwestern Athletic Conference | 3 | 2% |
| Sun Belt Conference | 2 | 1% |
| Summit League | 3 | 2% |
| West Coast Conference | 3 | 2% |
| Western Athletic Conference | 4 | 3% |
| Independent | 1 | 1% |
| All Conferences Total | 143 | |

Appendix H

Factor Solutions

*Six Factor Solution**

Market

- Access to new and emerging markets
- Ability to attract potential faculty through conference affiliations
- Ability to attract potential students through conference affiliations
- Enhanced institutional profile
- Institutional brand development
- A connection to alumni/fan groups in new markets
- Charitable contributions from alumni/fan groups
- Ability to effectively build brand with alumni/fan groups
- Indirect financial support

Revenue

- Conference's access to revenue generating post-season opportunities
- Conference's access to television/media broadcast rights packages
- Ability for the conference to generate revenue through ticket sales
- Opportunities for revenue from licensing corporate sponsorships and donations through conference affiliation

Competitive Balance

- Parity to access post-season
- Parity to better position in win-loss standings
- Comparable facilities
- Ability to compete athletically
- Fan interest in out of conference competition
- Lack of national championships won by member institutions
- Lack of an existing fan base in new conference

Team Travel

- Regional proximity to conference member institutions
- Scheduling of out of conference competition
- Missed class time for student-athletes due to travel for competition
- Rivalries with other conference member institutions
- Scheduling of conference competition

Academic Prestige

- Similarity of academic profiles among member institutions
- The influence that the academic reputation of a conference may have on your institution's academic profile
- The influence that your institution's academic profile may have on the academic reputation of the conference

Athletic Prestige

- Overall athletic quality of the conference
- Win totals by member institutions

Performance of conference members

Five Factor Solution

Factor 1 (Market)

Access to new and emerging markets
Ability to attract potential students through conference affiliations
Enhanced institutional profile
Institutional brand development
A connection to alumni/fan groups in new markets
Charitable contributions from alumni/fan groups
Ability to effectively build brand with alumni/fan groups
Indirect financial support

Factor 2 (Brand)

Conference's access to revenue generating post-season opportunities
Conference's access to television/media broadcast rights packages
Ability for the conference to generate revenue through ticket sales
Opportunities for revenue from licensing corporate sponsorships and donations through conference affiliation
Overall athletic quality of the conference

Factor 3 (Competitive Balance)

Parity to access post-season
Parity to better position in win-loss standings
Comparable facilities
Ability to compete athletically
Fan interest in out of conference competition
Lack of national championships won by member institutions
Lack of an existing fan base in new conference

Factor 4 (Team Travel)

Regional proximity to conference member institutions
Missed class time for student-athletes due to travel for competition
Rivalries with other conference member institutions
Scheduling of conference competition

Factor 5 (Academic Prestige)

Similarity of academic profiles among member institutions
The influence that the academic reputation of a conference may have on your institution's academic profile
The influence that your institution's academic profile may have on the academic reputation of the conference

***Retains 27 components due to insufficient loading on any factor*

Appendix I

Factor Loadings

Survey Question

“To what extent do the following considerations serve as incentive for your institution to affiliate with a particular conference?”

| | Market | Revenue | Competitive Balance | Team Travel | Academic Prestige | Athletic Prestige |
|--|--------|---------|---------------------|-------------|-------------------|-------------------|
| Parity to access post-season | | | .504 | | | |
| Parity to better position in win-loss standings | | | .745 | | | |
| Comparable facilities | | | .552 | | | |
| Ability to compete athletically | | | .557 | | | |
| Fan interest in out of conference competition | | | .530 | | | |
| Conference's access to revenue generating post-season opportunities | | .881 | | | | |
| Conference's access to television/media broadcast rights packages | | .934 | | | | |
| Ability for the conference to generate revenue through ticket sales | | .690 | | | | |
| Opportunities for revenue from licensing corporate sponsorships and donations through conference affiliation | | .774 | | | | |
| Access to new and emerging markets | .632 | | | | | |
| Ability to attract potential faculty through conference affiliations | .571 | | | | | |
| Ability to attract potential students through conference affiliations | .770 | | | | | |
| Enhanced institutional profile | .773 | | | | | |
| Institutional brand development | .843 | | | | | |
| Overall athletic quality of the conference | | | | | | .607 |
| Win totals by member institutions | | | | | | .988 |
| Lack of national championships won by member institutions | | | .420 | | | |
| Performance of conference members | | | | | | .598 |
| Similarity of academic profiles among member institutions | | | | | .875 | |
| The influence that the academic reputation of a conference may have on your institution's academic profile | | | | | .923 | |

| | | |
|--|------|------|
| The influence that your institution's academic profile may have on the academic reputation of the conference | | .733 |
| Regional proximity to conference member institutions | | .821 |
| Scheduling of out of conference competition | | .480 |
| Missed class time for student-athletes due to travel for competition | | .747 |
| Rivalries with other conference member institutions | | .800 |
| Scheduling of conference competition | | .680 |
| A connection to alumni/fan groups in new markets | .745 | |
| Lack of an existing fan base in new conference | | .439 |
| Charitable contributions from alumni/fan groups | .712 | |
| Ability to effectively build brand with alumni/fan groups | .897 | |
| Indirect financial support | .665 | |

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Research Areas of Interest

Organizational behavior in higher education and intercollegiate athletics
Finance and economics in higher education and intercollegiate athletics
Governance in higher education and intercollegiate athletics
Quantitative methods

Research

Selected scholarship

Nwosu, G., & Peetz, T.B. (2014). A Machiavellian analysis of conference realignment: White paper. *Issues in Intercollegiate Athletics Working Paper Series*. Retrieved from https://sites.education.washington.edu/uwcla/sites/sites.education.washington.edu.uwcla/files/Nwosu_20_13_Full_Final.pdf

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Nwosu, G., & Nichols, M. (2012, March). Leadership Lessons in Sports. Presented at the University of Nevada Las Vegas' Greek Leadership Day through the Office of Civic Engagement and Diversity, Las Vegas, NV.

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Professional Experience

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