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Creating and testing the higher education leadership competencies (Helc) model: A study of athletics directors, senior student affairs officers, and chief academic officers

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CREATING AND TESTING THE HIGHER EDUCATION LEADERSHIP COMPETENCIES (HELC) MODEL: A STUDY OF ATHLETICS DIRECTORS, SENIOR STUDENT AFFAIRS OFFICERS, AND CHIEF ACADEMIC OFFICERS

by

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A dissertation submitted in partial fulfillment of the requirements for the

Doctor of Philosophy Degree in Educational Leadership
Department of Educational Leadership
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May 2007
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Entitled

Creating and Testing the Higher Education Leadership Competencies (HELC) Model: A Study of Athletics Directors, Senior Student Affairs Officers, and Chief Academic Officers

is approved in partial fulfillment of the requirements for the degree of

Doctor of Philosophy in Educational Leadership

Examination Committee Chair

Dean of the Graduate College

Graduate College Faculty Representative
ABSTRACT

Creating and Testing the Higher Education Leadership Competencies (HELC) Model: A Study of Athletics Directors, Senior Student Affairs Officers, and Chief Academic Officers

By,

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Dr. Mimi Wolverton, Examination Committee Chair
Professor of Educational Leadership
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The purpose of this study was threefold: to extend existing knowledge of McDaniel’s (2002) qualitative inquiry of higher education leadership competencies by testing her theory using quantitative methods; to either affirm or create a new, more refined model of higher education leadership competencies based on the results of the data analysis; and finally, to compare the similarities and differences of important competencies necessary for effective leadership between and within three groups of leaders in higher education: athletics directors (ADs), senior student affairs officers (SSAOs), and chief academic officers (CAOs).

Goodness of fit results indicated McDaniel’s 4-category model of higher education leadership competencies (context, content, process, and communication) was a marginal fit, at best (IFI = .730, CFI = .726, RMSEA = .070). Therefore, a new more refined model, called the Higher Education Leadership Competencies Model (HELC Model), was developed using factor analysis statistical procedures. Five categories emerged and were labeled by the researcher as analytical, communication, student...
affairs, behavioral, and external relations. Goodness of fit indices for the HELC Model (IFI = .862, CFI = .860, RMSEA = .062) suggested a better fit than McDaniel's model.

Between and within group differences were also measured, based on the five categories of the HELC Model. For between group differences, SSAOs and CAOs ranked Analytical Leadership Competencies higher than ADs, however there was no difference between SSAOs and CAOs. SSAOs ranked Student Affairs Leadership Competencies higher than both ADs and CAOs, however, there was no difference between the level of importance between ADs and CAOs. Finally, ADs ranked External Relations Leadership Competencies higher than both SSAOs and CAOs, with no statistical difference between SSAOs and CAOs. There was no difference between groups for Communication Leadership Competencies, and Behavior Leadership Competencies.

For within group differences, ADs ranked External Relations Leadership Competencies as most important for effective higher education leadership, SSAOs ranked Student Affairs Leadership Competencies as most important, and CAOs ranked Analytical, Communication, and Behavioral Leadership Competencies as most important.

Responsibilities vary among athletics directors, senior student affairs officers, and chief academic officers within the greater context of higher education. As expected, groups ranked competencies associated with their own jobs higher in importance than competencies less relevant to their jobs.
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CHAPTER 1

INTRODUCTION

The changing and complex nature of higher education institutions requires sophisticated and competent leadership. With limited resources and increasing demands, an institution’s chief executive has been forced to delegate power across multiple levels within the organization. As a result, day-to-day governing responsibilities have been shifted from the president to lower-level executives. Consequently, the demand for effective and competent leadership has become even more important at all levels of higher education institutions.

In her book *Leaders for a New Era: Strategies for Higher Education*, Green (1988) stated, “College and universities by their own proclamation are in the business of developing leaders” (p. 1). Despite this assertion, Green continued, “the academy has paid little systematic attention to developing its own leaders” (p. 1), resulting in an increase in demand for leaders across the entire academy. Almost fifteen years later, Rosenzweig (2001, p. 186) lamented that wise, public leadership of higher education remains unquestionably in short supply.

The traditional higher education administrative model of shared governance has long provoked internal debate, and often strife, among an independent workforce comprised of competing, specialized individuals (i.e., faculty), all with their own interests. This system operates with gross inefficiencies in a world where quick,
informative decision-making has never been more important. As early as 1946, Day pointedly stated (p. 342):

In many respects, the different subdivisions of a great university are in competition with one another. By very nature, they are made up of specialists who naturally see the work of the institution primarily in terms of their own particular set of undertakings. It is altogether appropriate that these specialists think somewhat obsessively about their own special interests; they are not likely otherwise to exhibit the drive they should have. For this very reason, they cannot be expected to be adept in compromise or reciprocal adjustment.

Unfortunately, little has changed since Day's observation. The increasingly specialized nature of faculty has led to what Duryea referred to in 1973 as “a monopoly of the expert” (p. 11). He believed that “[t]his specialization has left the university-wide administrators, and at times deans as well, unable to do more than respond to initiative on matters of personnel, facilities, teaching, curriculum, and research” (p. 11). More recently, Rosenzweig (2001) recognized that faculty independence has resulted in a self-governing organizational structure that requires savvy leadership aimed at consensus building through collaborative efforts. He stated (p. 112):

Any political system that fails to take into account the way in which its ‘society’ actually operates will surely fail. But it is also true that no organization as complex as the modern university can survive without some legitimate central authority, some way of generating agreement among separate dukedoms and independent dukes, some way of facing the outside world and responding to its demands, some capacity for dealing with issues that cut across the separate units.
Although the shared governance model continues to dominate the administrative function (Johnston, 2003; Padilla, 2005), colleges and universities have grown considerably in size, number, and complexity over the last 350 years (Cohen, 1998). Paradoxically, today's universities continue to operate within conventional and well-established systems of inefficiency, while university presidents experience a declining impact on the primary objective of institutions of higher learning – that is, the implementation of processes that promote and enhance student learning, performance, and outcomes. Cohen and March (1986, p. 207) asserted:

The total system has high inertia. Anything that requires a coordinated effort of the organization in order to start is unlikely to be started. Anything that requires a coordinated effort of the organization in order to be stopped is unlikely to be stopped.

Theory regarding administrative best practices within higher education institutions has provoked debate for decades. A cursory look at the evolution of academic administration and leadership offers insight into the system's inefficiencies, dynamic features, and relevance for the twenty-first century. To begin, Cremin (1997, p. 44-46) summarized the early academic function as follows:

Three academic exercises – the lecture, the declamation, and the disputation – lay at the heart of the education offered at seventeenth-century Harvard: the immediate goal of that education was to enable students to systematize coherently and to contend expertly, abilities highly prized in an oral culture that placed ultimate value on the discovery of philosophical and theological truth.
During the colonial years, presidents often taught the entire curriculum themselves (Cremin, 1997). However, Henry Dunster, at the age of thirty, assumed the role of Harvard's president in 1640 and found himself both teaching and working tirelessly on administrative functions that are common today (Cremin, 1997, p. 47):

When Dunster assumed his post, his understanding was that he would teach, and that there would be 'no further care or distraction.' He could not have been more mistaken. Even though he had the co-operation of a powerful board of overseers, he found himself caught up, during the fourteen years of his presidency, in all the concerns of a latter-day university administrator.

As President Dunster realized, the role of the college president was much more than simply teaching students. Consumed with operational tasks, college presidents were forced to hire tutors and faculty to teach the curriculum. Cohen (1998) observed that Harvard and Yale employed four tutors each year between 1702 and 1789, and Kings College (now Columbia University) hired its first tutor in 1755 and its first professor in 1757 (Cohen, 1998). A hierarchy of administration and teaching took root and the organizational structure of higher education evolved further into the nineteenth century.

The 1800s were marked by tremendous expansion in both the number of institutions and total enrollment (Cohen, 1998). Hundreds of colleges and universities opened as the nation continued its growth west. During this time, the Yale Report, issued in 1828, argued for upholding the traditional curriculum, calling for a variety of topics that would enhance the educational experience and broaden the minds of the students (Cohen, 1998). Conversely, some academicians believed educational programs were in need of reform. In 1824, Thomas Jefferson founded the University of Virginia and
curriculum differentiation began to emerge. Initially, faculty and students were assigned to specialized units in areas such as mathematics and history. However, curriculum reform of this nature was tenuous and often met with resistance (Cohen, 1998). Eventually, institutions began offering expanded curriculums and the role of the college president changed from one of teaching, to one devoted to fundraising, community relations, and managing operations (Cohen, 1998). This was a significant period in higher education, as faculty became more independent and college presidents were looked upon to be innovators and visionaries.

Enrollment growth compelled schools to specialize throughout the twentieth century, and the demand for financial resources escalated dramatically. Student activities became popular, including intercollegiate and intramural athletics, social clubs and societies, and fraternities and sororities (Cohen, 1998). Combined with the rapid expansion of enrollments during the industrial revolution was the expansion of the physical plant. Managing facilities evolved into a full-time profession, as campuses hired janitors, handymen, and other facility personnel (Cohen, 1998). Furthermore, schools became more selective in their admissions policies, thus requiring administrators to screen applicants and select the most qualified students for admission. Students’ needs and demands increased exponentially (Ottinger, 2000) and it was soon evident that college and university presidents could no longer manage these increased pressures alone.

Currently, the role of the twenty-first century president has shifted from the colonial traditions of teacher, mentor, and academic leader, to external relations and fundraising specialist (Cohen, 1998). Layers of executives exist to supervise intercollegiate sports (athletics directors), student affairs (senior student affairs officers),
and the internal function of academics (chief academic officers). Clearly, these individuals and their leadership play an increasingly important role in what Cremin (1997) referred to as “the discovery of philosophical and theological truth” (p. 46). Although “the lecture, the declamation, and the disputation” (Cremin, 1997, p. 44) underscore the traditional academic purpose of higher education institutions, student learning, performance, and outcomes are at the heart of the modern university. If only a matter of semantics, the student was and continues to be the driving force behind the function of academic leaders and administrators.

The university president no longer remains the key figure in directing policy and facilitating administrative action. Senior-level executives have emerged with significant power, authority, and decision-making responsibilities that shape our nation’s higher education system. In the late 1970s, Baldrige, Curtis, Ecker, and Riley (1977, p. 141) stated:

The key figure today is not the president, the solitary giant, but the political leader surrounded by his staff, the prime minister who gathers the information and expertise to construct policy. It is the “staff,” the network of key administrators, that makes most of the critical decisions. The university has become much too complicated for any one man, regardless of his stature. Cadres of vice-presidents, research men, budget officials, public relations men, and experts of various stripes surround the president, sit on the cabinet, and help reach collective decisions. Expertise becomes more critical than ever and leadership becomes even more the ability to assemble, lead, and facilitate the activities of knowledgeable experts.
Further, in their study on university presidents, Cohen and March (1986) found that “presidents do not appear to have much to say about academic policy” (p. 103), suggesting that educational policy decisions are made at the department level rather than the presidential level.

Competent leadership at executive levels below the president is critical, as these individuals have increasing influence over institutional policy and decision-making. As the power center on campus shifts to lower levels of administrators, these individuals find themselves in situations with significant influence over student learning, outcomes, and performance. Dressel (1981) supports this claim, stating “to the administrators at all levels who are responsible to the president, falls the task of managing resources in relationship to the avowed goals, but with the accompanying conviction that, in an institution devoted to the education and development of individuals, management requires extensive involvement of all individuals concerned” (p. 109). Furthermore, Land (2003) believes that although some academic administrators may lack formal academic and teaching experience, they often bring critical skills to the leadership team. These skills include “managing physical assets, prioritizing political and strategic plans, building strong teams, and serving students in a multitude of ways” (p. 19).

For instance, athletics directors at the NCAA Division I level often occupy an important position on the president’s cabinet and are responsible for highly visible, specialized student-athletes who experience tremendous academic and athletic pressures. Student-athlete graduation rates have been increasingly scrutinized (Long & Caudill, 1991; Mangold, Bean, & Adams, 2003, Purdy, Eitzen, & Hufnagel, 1982), thus forcing athletics directors to direct more attention to student learning, rather than wins and losses.
It is not uncommon for today's athletics directors to have lucrative academic bonus structures linked to their employment contracts. Likewise, senior student affairs officers have assumed increasing responsibilities for the overall human development of college students (Miller & Prince, 1976; Ottinger, 2001). They report directly to the president at large higher education institutions and supervise one of the most diverse units on campus that includes health and safety, student housing, food services, admissions, extracurricular activities, and so forth. Moreover, it has become increasingly important for the senior student affairs officer to develop collaborative and effective relationships with academic affairs in an effort to enhance student learning (Brown, 1990; Engstrom & Tinto, 2000; Sandeen, 1991, 2000; Schroeder, 2003; Schuh & Whitt, 1999). Finally, the chief academic officer, also reporting directly to the president, is responsible for the majority of academic functions (Padilla, 2005), including university libraries, technology, academic entrepreneurship, program assessment, and strategic planning (Ferren & Stanton, 2004). Clearly, student learning is the primary focus of the academic function, placing a large amount of responsibility on the chief academic officer for student performance and outcomes.

In summary, today's senior-level executives of higher education institutions have an increasing influence over academic outcomes of a college or university campus. Competent leadership is necessary for effective organizational outcomes. This research is concerned with understanding the importance of, identifying, and refining core competencies necessary for effective higher education leadership. Three groups of senior-level executives serve as the population for this research: athletics directors, senior student affairs officers, and chief academic officers. This first chapter includes the
statement of the problem, purpose of the study, research questions, list of definitions, significance of the study, and a summary of the organization of the remainder of the dissertation.

Statement of the Problem

Researchers have studied leadership for decades. Bass (1990) cites over 7,500 references in his comprehensive review of leadership. However, higher education leadership research is a relatively new area of inquiry. Considerable literature exists regarding the importance of presidential leadership, pointing to the knowledge, skills, and abilities (competencies) necessary for success (Birnbaum, 1992; Cohen & March, 1974; Fisher & Koch, 1996, 2004; Fisher, Tack & Wheeler, 1988; Peck, 1983, Padilla, 2005). Unfortunately, most research has been carried out using qualitative methods, offering little more than personal opinions, anecdotal insight, and theoretical propositions. Furthermore, most studies consider only the chief executive’s perspective.

Core competencies necessary for effective higher education leadership have been ill defined for decades. However, within the curriculum of the American Council of Education (ACE) Fellows program – a program “created in 1965 to identify and prepare leaders for colleges and universities” (Chibucos & Green, 1989, p. 21) – McDaniel (2002) used qualitative methods to identify core competencies related to higher education leadership. Characteristics and behaviors of executive leaders in higher education were identified, organized, and reviewed. A final list of core higher education leadership competencies was developed and presented. Leadership competencies were synthesized into four categories: context, content, process, and communication. Although
McDaniel's (2002) research provides the foundation for understanding important core higher education leadership competencies, her research has not been validated quantitatively. In addition, little research exists that compares the attitudes, beliefs, and opinions of multiple groups of senior leaders of higher education institutions and what they believe are important for effective higher education leadership.

As previously stated, senior-level executives have become increasingly important to student learning, performance, and outcomes (Baldridge et al, 1977; Cohen & March, 1986; Dressel, 1981; Land, 2003). Higher education's unique organizational structure combined with increasing administrative responsibilities of its leaders (i.e., athletics directors, senior student affairs officers, and chief academic officers) presents a need to expand on McDaniel’s (2002) research on core higher education leadership competencies, and to more precisely identify and categorize competencies necessary for effective leadership.

Purpose of the Study

In 1973, McClelland suggested that aptitude and intelligence alone were not sufficient predictors of high performance. He questioned the validity of intelligence tests and cited socioeconomic factors, rather than IQ, as contributing more to successful life outcomes. McClelland found competency testing relevant for specific job tasks, and further believed that “[f]or some purposes it may be desirable to assess competencies that are more generally useful in clusters of life outcomes, including not only occupational outcomes but social ones as well, such as leadership, interpersonal skills, etc.” (p. 9).
The social outcome of competent leadership drives the underlying framework for the current study.

McClelland’s thesis initiated the development of competency models in business, industry, military settings, and other organizations (Alldredge & Nilan, 2000; Chung-Herrera, Enz, & Lankau, 2003; Moilanen, 2002; Morrison, 2000; Rodriguez, Patel, Bright, Gregory, & Gowing, 2002). Competency models are useful in identifying knowledge, skills, and abilities necessary for effective job performance. Specifically, a competency model is “an organizing framework that lists the competencies required for effective performance in a specific job, job family (i.e., group of related jobs), organization, function, or process” (Marrelli, Tondora, & Hoge, 2005, p. 537).

Frequently, the first step in creating a competency model is to identify a set of core competencies relevant to a specific industry, organization, or job type (Shippmann et al., 2000). For example, McDaniel (2002) identified core competencies related to higher education leadership and validated them by obtaining feedback from university presidents, vice presidents, and other higher education administrators. Although core higher education leadership competencies have been identified by McDaniel (2002), additional empirical research is needed before drawing more precise conclusions regarding her findings.

The purpose of this research is to a) create a survey instrument based on a thorough literature review, pilot study, and consultation with subject matter experts, to measure the importance of higher education leadership competencies as developed by McDaniel; b) administer the survey to senior-level leaders (athletics directors, senior student affairs officers, and chief academic officers); c) analyze the results of the survey.
and compare them to McDaniel’s four categories of context, content, process, and communication through statistical methods; and d) analyze the similarities and differences of the importance of higher education leadership competencies between and within the groups.

Research Questions

This study seeks to answer the following research questions:

1) Do higher education leadership competencies, as developed by McDaniel (2002), factor into four groups of context, content, process, and communication that mirror McDaniel’s schema?

2) Is there a difference of perception of importance of specific higher education leadership competencies between athletics directors, senior student affairs officers, and chief academic officers?

3) Is there a difference of perception of importance of specific higher education leadership competencies by each group (athletics directors, senior student affairs officers, and chief academic officers)?

Definition of Terms

The following is a list of terms and their operational definitions for use in this dissertation.

Athletics Director: senior officer responsible for the oversight, supervision, and leadership of the intercollegiate athletics unit within a higher education institution
Chief Academic Officer: senior officer responsible for the oversight, supervision, and leadership of the academic enterprise within a higher education institution

Chief Executive Officer: senior officer responsible for the oversight, supervision, and leadership of the entire college and/or university campus

Competence: “a sufficiency of means for the necessities and conveniences of life” (Mish, 1999, p. 234)

Competency: an observable performance dimension of knowledge, skill, ability, and/or attribute that results in high performance and/or effective outcomes (Mish, 1999; Athey & Orth, 1999; Marrelli, Tondora, & Hoge, 2005)

Competency Modeling: a methodological approach that provides a framework for developing competencies necessary for high performance and/or effective outcomes specific to an industry, organization, occupation, or some combination

Confirmatory Factor Analysis (CFA): a statistical method used in the advanced stages of the research process to test a theory or hypothesis; CFA is usually performed using structural equation modeling techniques (Tabachnick & Fidell, 2001, p. 582-652)

Exploratory Factor Analysis: a statistical method used in the early stages of research to describe and summarize data by grouping correlated variables together (Kachigan, 1986)

Higher Education Organizational Elements: organizational dimensions or units that make up higher education institutions and are typically managed by a senior executive or administrator

Multivariate Analysis of Variance: “a generalization of ANOVA to a situation in which there are several DVs; MANOVA tests whether mean differences among groups
on a combination of DVs are likely to have occurred by chance” (Tabachnick & Fidell, 2001, p. 322)

**Nomological Network**: a methodological approach that is used to identify and present theoretical relationships, or constructs, in a systematic way and relate them back to observable indicators (Cronbach & Meehl, 1955).

**Principal Components Analysis**: a statistical technique “applied to a single set of variables when the researcher is interested in discovering which variables in the set form coherent subsets that are relatively independent of one another” (Tabachnick & Fidell, 2001, p. 582); “[i]n PCA all the variance in the observed variables is analyzed” (Tabachnick & Fidell, p. 585)

**Senior Student Affairs Officer**: senior officer responsible for the oversight, supervision, and leadership of the student affairs unit within a higher education institution

**Structural Equation Modeling (SEM)**: a statistical technique that examines the relationship between one or more independent variables and one or more dependent variables (Ullman, 2001, p. 653); typically used to test an existing theory or hypothesis

**Significance of the Research**

From a practical standpoint, there are many implications for the current research. First, multiple competing interests exist among all three groups under study. Some interests are similar (budgets, facilities, diversity, etc.), and others are quite different. Different interests often require a different set of knowledge, skills, and abilities for effective leadership. This research identifies the importance of core higher education leadership competencies for effective leadership from multiple perspectives. It provides
a mechanism by which senior-level executives can evaluate and rank the importance of core competencies based on their own experiences, attitudes, and beliefs.

In addition, this research provides senior-level executives of higher education institutions a better understanding of leadership competencies important to cross-division colleagues. Understanding the beliefs and attitudes of leaders of different units helps individuals collaborate more effectively, while respecting collegial differences.

An additional practical consideration is related to career aspirations of current higher education administrators and students who aspire to serve in higher education leadership positions. This research offers a better understanding of the importance of core competencies necessary for effective higher education leadership. In addition, results of this research present important information that can be used for curriculum planning of higher education leadership graduate programs and training and development programs.

Finally, higher education chief executive officers can use results of this research to make more precise, informed hiring decisions of senior-level executives. Hiring competent executives is important for the success of any organization. Understanding important competencies necessary for effective higher education leadership allows college and university presidents to recruit more strategically. Core competencies could be refined and manipulated to reflect organizational culture as well as the mission and goals of a specific institution.

In addition to practical implications, the current research has theoretical implications as well. The results of this study further validate and extend existing knowledge of core higher education leadership competencies as developed by McDaniel
(2002). This research is an important step in building a comprehensive higher education leadership competency model. The methods employed are consistent with existing empirical competency modeling recommendations (Shippmann et al., 2000). Moreover, this research presents a relevant framework for extending core competencies across multiple types of institutions and administrative levels within higher education organizations. Currently, no survey exists to test the importance of core higher education leadership competencies among higher education leaders. Reliability and validity testing resulted in a significant step toward creating a scientifically grounded survey instrument that can be used for future higher education leadership competency research.

Finally, results of this research can be used to create relevant and precise job announcements and in developing a test measuring one’s competence for a specific leadership position. For example, after specific core higher education leadership competencies have been identified and validated, executive level job announcements could be created based on these competencies. Next, multiple instruments measuring one’s leadership competence could theoretically be created and administered to individuals applying for a specific position. Results of this research offer a significant step toward this process, known as criterion testing. Human resource directors and university presidents can use this information to create an objective way to measure an applicants’ leadership competence, relevant to a specific unit and/or position for which they are applying.

Organization of the Dissertation

This dissertation is organized into nine chapters. This first chapter introduced the current research and reviewed the statement of the problem, purpose of the study,
research questions, operational definitions, and significance of the study. In Chapter 2, a literature review is presented outlining general leadership theory, the frame of reference used to design and support the study, current higher education leadership literature, and the population. Next, Chapter 3 outlines relationships between existing theoretical constructs and leadership competencies developed by McDaniel (2002) through the synthesis of a nomological network. Chapter 4 details the methodology. Chapters 5 and 6 summarize the data and offer a discussion of the research in relation to research question 1. Chapters 7 and 8 summarize the data and offer a discussion of the research in relations to research questions 2 and 3. Finally, Chapter 9 summarizes the dissertation and presents limitations and a conclusion.
CHAPTER 2

LITERATURE REVIEW

Introduction

In 1978, Burns poignantly stated, “Leadership is one of the most observed and least understood phenomena on earth” (p. 2). Leadership is a dynamic process that scholars, researchers, and practitioners, alike, have struggled to define and understand for centuries. Thousands of authors have contributed to leadership research within multiple contexts and frameworks (Bass, 1990; Stogdill, 1974). Propositions and theories have been introduced based on human interaction, leadership characteristics, organizational effectiveness, environment, situations, behavioral outcomes, and so forth (Bass, 1990). The last 100 years of research has resulted in both qualitative and quantitative analyses covering a wide spectrum of topics. Nevertheless, empirical studies grounded in scientific rigor have been limited because of implicit norms, values, and emotions that arise from the inference that the power of leadership has intrinsic worth (Heifetz, 1994, p. 14).

While Chapter 1 emphasized the importance of higher education leadership and the increasing impact senior higher education leaders have on student learning, outcomes, and performance, this chapter summarizes a review of relevant literature related to leadership, competence, higher education leadership, and specific higher education leaders that have been largely ignored. The intent here is to offer a logical construct
while building a case for studying core leadership competencies through the lens of senior-level executives in higher education.

First, a discussion of general leadership theory is provided. Next, leadership is referenced within a competency framework. Finally, a review of important leadership research related to higher education and university presidents, followed by a discussion on athletics directors, senior student affairs officers, and chief academic officers is presented. In the next chapter (Chapter 3), a nomological network outlines relationships between existing theoretical constructs and leadership competencies used for this research, as initially developed from the work of Elizabeth McDaniel (2002).

Leadership Theories

Many theories, models, and approaches have defined and redefined the way in which one analyzes, processes, and characterizes leadership (Bass, 1990; Fiedler, 1964; Heifetz, 1994; Hersey & Blanchard, 1969; McGregor, 1960; Northouse, 2004; Stogdill, 1974). Some researchers have argued that the existing laborious and often incomplete interpretations of leadership have resulted in more confusion than understanding (Bennis & Nanus, 1997). However, a few dedicated scholars have spent significant time and effort assimilating, testing, and consolidating existing theories in an attempt to clarify the subject (Bass, 1990; Stogdill, 1974; Northouse, 2004).

Leadership has been studied using both quantitative and qualitative methodologies and in a variety of organizational, situational, environmental, and behavioral contexts (Bass, 1990; Northouse, 2004). Additionally, it has been researched through the lens of sociology, psychology, business, history, education, and military
organizations (Green, 1988, p. 3; Moilanen, 2002). Considering the scope of the current research project, it would not be appropriate to summarize every existing leadership theory. Therefore, the attempt here is to present an historical review of general theory contributing most significantly to the overall breadth and depth of leadership literature, as it stands today.

The vast array of methodologies and contexts contributes to the difficulty of a systematic review of leadership literature. Stogdill's (1974) manuscript helped to clarify and organize the topic when he published the first edition of the *Handbook of Leadership*. The ambitious Stogdill (1974) prepared over 5,000 abstracts, sorted and tabulated them into relevant topics and categories, and interpreted results in an effort to understand what was known about leadership at the time.

After Stogdill's death in 1978, two more editions of the handbook of leadership were published, including the most recent version edited by Bernard Bass in 1990. Over 7,500 references were cited in the third edition, spanning multiple themes, contexts, and frameworks with subjects on leadership attributes, power, transactional and transformational leadership, management, environment, diversity, and many others. More recently, Northouse's (2004) review of leadership theory was based on "an in-depth description and application of many different approaches to leadership" (p. 2). Generally, most manuscripts pale in comparison to the wide-ranging and all-encompassing nature of Bass and Stogdill's literary accomplishments.

A cursory look at Bass (1990) and Stogdill's (1974) handbooks of leadership combined with Northouse (2004) reveals consistent theories driving the leadership research agenda throughout the majority of the twentieth century. Specific theories and
models pulled from these authors and reviewed in this section include trait theory, situational approach, contingency theory, interaction/exchange theories, and transformational leadership. A brief analysis indicates that leadership theories have evolved from a focus on the leader’s behaviors and characteristics to leadership as a process. For example, scholars, such as Heifetz (1994) and to a lesser extent Collins (2001), offer modern theories that build on the process of transformational leadership whereby leaders motivate followers to achieve dramatic results by emphasizing a compelling vision for the future (Bass, 1990).

To begin, the trait approach to leadership was popular in the late 19th and early 20th centuries. Advocates of the trait approach believed certain characteristics were important for effective leadership, and it was these characteristics, or traits, that differentiate leaders from their followers (Bass, 1990; Northouse, 2004; Stogdill, 1974). Commonly known as the “Great Man” theory, power is given to limited individuals whose “inheritance and destiny” move them into leadership positions (Bennis & Nanus, 1997, p. 5). However, Stogdill’s review of trait theory found inconclusive evidence related to the impact of leader qualities and characteristics on the organization. He believed that a person does not rise to a leadership position because of traits alone, but rather the personal characteristics of a leader should match the characteristics and goals of followers in a given situation – situations that are constantly changing (Stogdill, 1974). Leadership is a “working relationship among members of a group in which the leader acquires status through active participation and demonstration of his capacity for carrying cooperative tasks through to completion” (Stogdill, 1974, p. 65). In short, situational
context, or environment, was found to be a significant variable left out of the original trait approach theory.

As Stogdill (1974) and Bass (1990) found, evidence accumulated that required a modification of how one differentiated between leaders and followers. Environment was thought to have a significant influence over who assumed leadership positions. This belief led to a shift from the trait approach to an increase in research on how a given situation influences leadership. The situational approach, as it became known, was based on the premise that great leaders emerge as a result of the environment (Bass, 1990). “The situationalists advanced the view that the emergence of a great leader is a result of time, place, and circumstance” (Bass, 1990, p. 38). Contrary to the trait approach, situational theorists believed leaders were not born, but rather the product of a situation that required a certain type of leader (Bass, 1990).

Trait and situational leadership research remained popular throughout much of the early to mid 1900s. However, at the beginning of the second half of the twentieth century, Hersey and Blanchard (1969) synthesized available empirical research and developed their own proposition to situational leadership. Consistent with other situationalists, they posited that different situations required different kinds of leadership. Hersey and Blanchard’s theory was different from most situational theory’s because it hinged on the premise that a leader must either be task-oriented or relations-oriented, depending on the skill level and maturity of the subordinate (Bass, 1990; Northouse, 2004). For instance, new, inexperienced employees might require more task-oriented attention and should be told what to do (Hersey & Blanchard, 1969). “As their ‘life-cycle’ on the job continues and their experience increases, they have to be sold to
continue performance” (Bass, 1990, p. 489). As subordinates fully mature, a leader’s responsibility shifts to relations management and delegation (Hersey & Blanchard, 1969).

About the same time Hersey and Blanchard (1969) developed their version of situational leadership, Fiedler (1967) popularized the contingency theory of leadership. In his book, *A Theory of Leadership Effectiveness*, Fiedler (1967) suggested that a leader’s influence over group performance is contingent on matching a leader’s style with the “degree of favorableness” of the group (p. 151). Fiedler asserted that if a leader’s style were modified based on the environment, group performance should experience tremendous improvement (Fiedler, 1967, p. 151). However, Fiedler believed that rather than changing a leader’s behavior, it is more important to match a leader’s style with an appropriate organizational context (Fiedler, 1967). In short, he believed, “Effective leadership is contingent on matching a leader’s style to the right setting” (Northouse, 2004, p. 109).

Up until this point, most research centered on leadership from the leader’s perspective, follower’s perspective, and/or the environment. However, from the mid-1970s through the mid-1980s leadership research shifted its focus toward leader-subordinate dynamics – that is, exchanges or interactions between a leader and a follower. Leadership characteristics and context had been widely researched, however, little was understood about process.

In 1976, Graen proposed that informally developed roles were negotiated between each individual group member and the leader, commonly referred to as leader-member exchange theory (LMX). “Co-workers may get involved in the role definition, but the leader, in particular, has a vested interest in the member’s role. The definition of a
member’s role defines what the member and the leader will expect the member to do” (Bass, 1990, p. 333). Early research focused on the dynamics between in-group and out-group relationships and how leaders interact with subordinates in both types of groups (Bass, 1990; Northouse, 2004). Mutual trust, respect, liking, and reciprocal influence defined leader/in-group relationships, while formal communication based on job descriptions defined leader/out-group relationships (Northouse, 2004). According to Graen (1976), a division between inner-circle and outer-circle relationships occurs because a leader does not have time to give equal attention to all subordinates. Later studies shifted focus from in-group and out-group relationships to how leader-member exchanges contribute to effective organizational outcomes (Northouse, 2004). Northouse suggested that high-quality leader-member exchanges increase employee moral, which leads to an increase in organizational productivity and job satisfaction.

Consistent with Graen’s (1976) focus on the process of leadership, transformational leadership emerged to describe the dynamic relationship between leaders, followers, and organizational outcomes. Burns’ book, Leadership (1978) first proposed the idea of the “transforming” leader, which was later extended by Bass (1985, 1998). Since then, thousands of articles have been published on transformational leadership in a variety of contexts and industries. Although it surfaced nearly thirty years ago, it continues to occupy a legitimate place in modern leadership research.

House’s theory of charisma led to Burns’ proposition in 1978. Burns (1978) believed leadership to be a process, or a series of transactions, between leaders and followers whereby leaders influence followers to move an organization above and beyond what is typically expected, to achieve some greater purpose (Bass, 1990). More
specifically, transformational leaders are responsible for motivating followers to put their own self-interests aside for the good of the organization (Bass, 1990). Bass (1985) asserted that “[i]ncreased awareness and the arousal of higher-level needs which transcend self-interests can produce extraordinary effort” (p. 15). By raising the consciousness of followers to focus on higher-level needs, rather than self-interests, the transformational leader will achieve significant organizational results (Bass, 1985). Four factors of influence define transformational leadership: charisma, inspirational motivation, intellectual stimulation, and individualized consideration (Bass, 1998; Northouse, 2004).

Burns’ (1978) understood that his theory of the transforming leader was based to some extent on Maslow’s hierarchy of needs (Bass, 1985). A transformational leader is responsible for motivating, persuading, and coercing individuals to “upgrade” their self-interest needs to the needs of the group (Bass, 1985). Bass suggested that the transformational process could be achieved in one of three ways (1985, p. 20):

- By raising our level of awareness, our level of consciousness about the importance and value of designated outcomes, and ways of reaching them
- By getting us to transcend our own self-interest for the sake of the team, organization, or larger polity
- By altering our need level on Maslow’s (or Alderfer’s) hierarchy or expanding our portfolio of needs and wants

Burns’ (1979) contributions to the body of knowledge on leadership are significant and have led to further theories that remain popular. Ronald Heifetz introduced a variation of transformational theory in 1994. Heifetz’s (1994) premise
centered on mobilizing subordinates through adaptive work. He built on interaction and exchange theories that leadership is more about process rather than a position of authority or a personal set of characteristics. For Heifetz, leadership is referred to as an activity involving the mobilization of people to face difficult problems and helping people make progress on challenges through adaptive work. Adaptive work consists of the "learning required to address conflicts in the values people hold, or to diminish the gap between the values people stand for and the reality they face" (Heifetz, 1994, p. 22). More specifically, adaptive work involves changing one's values, beliefs, or behavior and it is the leader's responsibility to assist followers with change. Heifetz's conclusions offer an alternative approach to the process of leadership.

Consistent with Burns (1978), Bass (1985, 1998), and Heifetz (1994), Collins (2001) refers to "level 5 leadership" to describe executives who are interested in "the larger goal of building a great company" (p. 21). In his empirical, longitudinal study comparing good companies to great companies, Collins found that all great companies had level-5 leaders, whereas the comparison companies employed leaders who fell into the bottom four categories. He believed level-5 leaders embody a "paradoxical mix of personal humility and professional will" (Collins, 2001, p. 39). They are ambitious, modest, self-effacing, and understated, and they plan for succession for the greater good of the company (Collins, 2001, p. 39). However, unlike Burns (1978), Bass (1985, 1998), and Heifetz (1994), Collins fails to offer a theory as to how the level-5 leader interacts with subordinates to achieve successful organizational outcomes. He identified that effective, level-5 leadership does indeed exist in great companies, but offered no hypothesis related to the process of leadership between the leader and subordinate.
Clearly, leadership theories are not confined to the aforementioned research. As previously discussed, Stogdill (1974), Bass (1990), and Northouse (2004) offer thorough reviews of leadership literature. Their syntheses include personal-situational theories, psychoanalytic theories, humanistic theories, exchange theories, behavioral theories, and others. The intent here was to provide a broad review of research that has served to guide the study of leadership over the last century.

Setting the Frame: Leadership and Competence

Competence provides a valid and relevant context for understanding the knowledge, skills, abilities, and attributes necessary to effectively lead people and organizations. McClelland (1973) first wrote about competence when he suggested that aptitude and intelligence alone were not sufficient predictors of high performance. He believed, “For some purposes it may be desirable to assess competencies that are more generally useful in clusters of life outcomes, including not only occupational outcomes but social ones as well, such as leadership, interpersonal skills, etc.” (p. 9). McClelland’s paper began a competency revolution that has driven social, behavioral, and organizational research for decades.

McClelland’s (1973) thesis questioned the validity of intelligence testing in general. He asserted that scores on intelligence and aptitude tests are not valid indicators of job success or job status, dismissing highly correlated research that claimed otherwise. Stated another way, performance on tests of ability does not relate to job performance. According to McClelland (1973), the high correlation between intelligence tests and job status found in multiple studies may be the result of socioeconomic factors and/or
credentials, rather than anything else. Individuals with more resources, power, and networking opportunities have more career opportunities, in general, and therefore end up in better paying, high profile jobs (McClelland, 1973). He stated (p.3):

We know that correlation does not equal causation, but we keep forgetting it. Far too many psychologists still report average-ability test scores for high- and low-prestige occupations, inferring incorrectly that this evidence shows it takes more of this type of brains to perform a high-level than a low-level job.

The second part of McClelland’s thesis offered an alternative approach to standard intelligence testing based primarily on anecdotal evidence. He referred to this approach as testing for competence and offered six principles to guide a new testing movement (p. 7-12):

1. The best testing is criterion testing.
2. Tests should be designed to reflect changes in what the individual has learned.
3. How to improve on the characteristic tested should be made public and explicit.
4. Tests should assess competencies involved in clusters of life outcomes.
5. Tests should involve operant as well as respondent behavior.
6. Tests should sample operant thought patterns to get maximum generalizability to various action outcomes.

At the time, McClelland’s (1973) conclusions were provocative. His work produced a paradigm shift regarding the relationship between exceptional school performance and successful life outcomes. Since then, empirical evidence has surfaced to support McClelland’s claims. In 2000, Thomas Stanley published research consistent
with McClelland’s hypothesis, using economic outcomes as the primary indicator of success. He explored the ideas, beliefs, and behaviors of over 700 millionaires and found that clusters of social skills, orientation toward critics, integrity, and creativity outranked intelligence as factors leading to economic success (2000, p. 35). Stanley concluded, “The results of my research on millionaires are highly congruent with Professor McClelland’s. Grades received in college do not explain a statistically significant portion of the variation in wealth or income, nor do SAT results” (p. 69).

Furthermore, Daniel Goleman (1998) analyzed competency models from 188 companies, suggesting that “emotional intelligence” components of self-awareness, self-regulation, motivation, empathy, and social skill play an increasingly important role at the highest levels of a company – more so than intelligence and technical skill. In fact, Goleman (1998) found that “nearly 90% of the difference in their profiles was attributable to emotional intelligence factors rather than cognitive abilities” (p. 94).

The importance of testing for competence is relevant insofar as competency measures relate to a specific job, job family, or, as McClellan (1973) inferred, “a social characteristic such as leadership” (p. 9). The theory offered by McClellan (1973) and later validated by Stanley (2000) provides a logical framework for researching leadership competencies, or more specific to the current research, core higher education leadership competencies. Prior to testing one’s competence in a given occupation, appropriate indicators must be identified relevant to success, high performance, and/or desirable outcomes specific to the occupation. For example, to test one’s competence as a leader in higher education, a list of competencies must first be identified relevant to successful
higher education leadership outcomes. An empirically grounded competency model is one alternative to achieve this result.

First, a definition of competence and/or competency is in order. Multiple definitions exist. For a generic definition, one must look to Merriam-Webster's Collegiate Dictionary (Mish, 1999), where competence is defined as “a sufficiency of means for the necessities and conveniences of life” (p. 234). From an organizational context, Athey and Orth (1999) define competencies as “a set of observable performance dimensions, including individual knowledge, skills, attitudes, and behaviors, as well as collective team, process, and organizational capabilities, that are linked to high performance, and provide the organization with sustainable competitive advantage” (p. 216). Marrelli, Tondora, and Hoge (2005) define a competency as “a measurable human capability that is required for effective performance” (p. 534). They further state, “A competency may be comprised of a knowledge, a single skill or ability, a personal characteristic, or a cluster of two or more of these attributes” (p. 534). For the purpose of this research and to synthesize these definitions into a common, manageable form, a competency is defined as an observable performance dimension of knowledge, skill, ability, and/or attribute that results in high performance and/or effective outcomes.

If grounded scientifically, competency modeling is a methodological approach that provides a framework for developing competencies specific to an occupation, such as higher education administration. Theoretically, an individual’s competence related to that occupation could then be measured by a test developed from the model (Robbins, Bradley, Spicer, & Mecklenburg, 2001). McDaniel (2002) states, “Competency-based models have the advantage of offering specific attributes and frameworks for behavioral
benchmarking” (p. 82). Competency modeling is popular within multiple industries, as CEOs, managers, and human resource executives recruit and select talented and productive workers who support the internal mission of the organization (Alldredge & Nilan, 2000; Chung-Herrera, Enz, & Lankau, 2003; Lin, Wu, & White, 2005; Moilanen, 2002; Morrison, 2000; Rodriguez, Patel, Bright, Gregory, & Gowing, 2002). An empirically rigorous competency model is based on a conceptual framework that practitioners and researchers use as a foundation for developing appropriate standards of practice for a given job (Shippmann et al., 2000, p. 703).

Marrelli, Tondora, and Hoge (2005) offer six steps to carrying out the competency modeling process:

1. Define the objective
2. Obtain the support of a sponsor
3. Develop and implement a communication and education plan
4. Plan the methodology
5. Identify the competencies and create the competency model
6. Apply the competency model

Steps four and five are of particular interest in the current study, as the purpose here is to first identify core higher education leadership competencies and measure their importance as perceived by three groups of higher education leaders: athletics directors, senior student affairs officers, and chief academic officers.

Shippmann et al. (2000) provided a 10-dimension level-of-rigor scale that helps guide the methodological process of competency modeling. Each dimension is rated on a scale of 1 (low rigor) to 5 (high rigor) in an effort to provide “minimal standards of
acceptability so that inferences from the product of the method can be confidently drawn” (Shippmann et al., 2000, p. 713). Shippmann et al.’s ten dimensions are as follows (p. 716-720):

1. Method of Investigation
2. Type of descriptor content collected
3. Procedures for developing descriptor content
4. Detail of descriptor content
5. Link to business goals and strategies
6. Content review
7. Ranking descriptor content
8. Assessment of reliability
9. Item/category retention criteria
10. Documentation

Using Shippmann et al.’s 10-dimension level-of-rigor scale as a framework for conducting research related to leadership competencies in higher education strengthens its overall validity and credibility. The intent here is to extend McDaniel’s research and refine her higher education leadership competency model. Adhering to Shippmann et al.’s empirical guide will help create a solid foundation for future research.

Specific to this study, Shippmann et al. (2000) stated, “Competency modeling approaches typically provide descriptions of the individual-level competencies that are core, or common, for an occupational group, entire level of jobs (e.g., executive, management, supervisory, hourly), or for the organization as a whole” (p. 727). In addition to refining McDaniel’s model of core higher education leadership competencies,
which is discussed later in this chapter, this research also seeks to gain an understanding of similarities and differences of the perceptions of athletics directors, senior student affairs officers, and chief academic officers. To achieve this result, it is logical to first identify and appropriately categorize core higher education leadership competencies and then compare the importance of these core competencies across groups (athletics directors, senior student affairs officers, and chief academic officers).

A word of clarification is in order. Competency modeling is useful to describe knowledge, skills, abilities, and attributes for multiple types of jobs and occupations. The purpose here, however, is to focus on leadership competence relative to higher education. Some might debate the definition of a leadership competency from a pure sense of the term. For instance, are the competencies of interest related to leadership, or are they simply competencies necessary for higher education administration? The underlying assumption guiding this research is that the individuals under study are, by nature of their executive roles in the organization, in leadership positions. Therefore, it is reasonable to conclude that competencies necessary and/or important for effective leadership as perceived by these individuals (athletics directors, senior student affairs officers, and chief academic officers) can be referred to as leadership competencies.

Summary: Leadership and Competence

To review, the most popular general leadership theories spanning the last century have been discussed, including trait theory, situational approach, contingency theory, interaction/exchange theory, transformational theory, adaptive leadership, and level-5 leadership. McClelland’s (1973) theses titled *Testing for Competence Rather than for*
"Intelligence" set the frame for the current research. An operational definition of competence and/or competency was provided as a result of collapsing definitions from Merriam-Webster's Collegiate Dictionary (Mish, 1999), Athey and Orth (1999), and Marrelli et al. (2005). Finally, evidence was presented supporting the validity of empirically grounded competency models (Shippmann et al., 2000) and its relevance to the current research.

The following section offers a general review of higher education leadership and higher education leadership competence, narrowing to specific literature related to athletics directors, senior student affairs officers, and chief academic officers.

Higher Education Leadership

Analysts, researchers, and scholars have long argued that leadership is contextual. However, most literature fails to consider time, place, and circumstance (Green, 1988, p. 4). Studying leadership within the context of higher education is challenging. Cohen and March's (1986) observation that universities operate as organized anarchies still resonates within today's institutions, as traditional values, historic perspectives, shared governance, faculty independence, and ambiguous roles and responsibilities often result in inefficient systems and ill-prepared administrators (Raines & Alberg, 2003).

Relatively little attention has been given to studying leadership in the academy (Bensimon, Neuman, & Birnbaum, 1989; Green, 1988; Hoffman & Summers, 2000; Vroom, 1983). Similar to general leadership theory, a large portion of existing literature consists of anecdotal, qualitative information with confusing and unclear propositions that are difficult to replicate (Bensimon et al., 1989). Qualitative research is significantly
influenced by the values and beliefs of the observer, time period, and institutional history (Birnbaum, 1992), making it difficult and problematic to draw consistent conclusions. Clearly, more research is needed grounded in empirical scientific methods.

The presidency and the extent to which presidential leadership actually makes a difference has been the driving force behind most of the higher education leadership research (Cohen & March, 1986; Fisher, Tack, & Wheeler, 1988; Fisher & Koch, 1996, 2004; Peck, 1983). Much of this research has focused on the relationship between specific characteristics and behaviors of leaders and level of leadership effectiveness (Bensimon et al., 1989; Fisher et al., 1988; Fisher & Koch, 1996, 2004). Interestingly, Robert Birnbaum’s (1992) analysis refutes the notion that the possession of certain traits and characteristics guarantees success in the presidency.

In 1989, Bensimon, Neumann, and Birnbaum contended that higher education leadership theories were too narrow, discounting the emergence of leadership from sources other than the president (p. 79). In order to advance the higher education leadership agenda, they believed researchers should “use theories that give attention to multiple sources of leadership” (p. 79). Furthermore, they stated, “Studies examining interactions among administrative leaders and the functioning of administrative teams are practically nonexistent” (Bensimon et al., 1989, p. 79). The current research is consistent with Bensimon et al. (1989) view regarding the necessity of multiple perspectives when engaging in higher education leadership research.

The following pages offer a review of the most significant and relevant higher education leadership literature, the majority of which is focused on the college and
university president. Included throughout this section is a discussion related to competencies necessary for effective leadership in higher education.

**A Review of Relevant Work**

Edmund Day (1946) provided one of the earliest accounts of the obligations of the president, proclaiming that presidents are responsible for public relations, increasing resources, mediating competing interests, maintaining moral, innovation, and promoting the general philosophy of the institution. Day’s analysis concluded with the assertion that presidents face a near impossible task, but nevertheless provide “the kind of leadership their institutions need” (p. 343).

Around the time Burns (1978) and Bass (1985) popularized transformational leadership, Peck (1983) wrote about university presidents as being “entrepreneurial” and “future focused.” Although the substance of his work was primarily anecdotal, Peck offered one of the earliest reviews of the college presidency and its effect on 19 colleges. Peck believed that college presidents were “future focused” and possessed entrepreneurial characteristics that enabled them to appropriately navigate the complex system of higher education. Peck’s findings contradicted research by Cohen and March (1974, 1986), suggesting that presidents have little impact or influence on the institutions they lead. In their research, Cohen and March (1974, 1986) found that the ambiguous nature of higher education institutions allows individuals and units to make decisions independently, without the blessing of the CEO. They posited that the institution makes the leader, rather than the leader having some great power to change the institution. Cohen and March’s perspective is consistent with Fiedler’s contingency theory (1967),

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whereby a leader’s style should be matched to an organization or situation, resulting in more effective organizational outcomes.

One of the most frequently cited empirical publications on the college presidency is a comprehensive study conducted by Fisher, Tack, and Wheeler (1988). The authors identified effective presidents and compared them to representative presidents to expose and analyze differences between them (Fisher et al., 1988). Specifically, they found effective presidents were more likely to be (p. 111):

- Less collegial and more distant
- Less likely to be spontaneous in speech and actions
- Less restricted by organizational structure or by the consensus of those to be led
- Less likely to appear to make decisions easily
- More confident
- More inclined to rely on gaining respect than on being liked
- More inclined to work long hours
- More supportive of the controversial concept of merit pay
- More interested in encouraging people to think differently and creatively
- More likely to be concerned about higher education in general than with one institution

According to Fisher et al. (1988), all of these qualities differentiated effective presidents from representative ones. The Fisher et al. (1988) study was consistent with Peck’s view that effective college presidents are indeed more entrepreneurial in nature.
The multidimensional, bureaucratic higher education environment may never lend itself to a “grand unifying theory of academic leadership” (Bensimon et al., 1989, p. 80). However, during the late 1980s and early 1990s scholars began looking at team, horizontal, and shared governance models of leadership in the academy (Bensimon & Neumann, 1993; Birnbaum, 1992; Green, 1988) that continue to remain popular in contemporary literature.

In 1988, Green purposefully excluded a discussion on presidential leadership, as her intent was to study leadership development and to develop a more inclusive, shared model of leadership. She believed that the decentralized nature of colleges and universities combined with faculty independence creates an environment in which a CEO’s leadership power is dependent on his or her legitimacy within the organization (Green, 1988, p. 15). Legitimate power requires the acceptance of followers as well as shared values and goals (Green, 1988). As a result, Green offered a new model of higher education leadership, emphasizing the importance of coalition and team building where leaders serve as “knowledge executives” and “future agents” (1988, p. 50). To be a knowledge executive and future agent, one must possess extensive knowledge of post-secondary institutions, understanding their operation from wide-ranging perspectives (Green, 1988). Green’s analysis is consistent with Peck’s (1983) idea of the “future focused” leader; however, Green’s assertion refers to the behavior of a team of leaders, rather than simply referring to the president, as Peck’s did.

Consistent with Green’s (1988) proposition, Birnbaum approached leadership from a team or shared governance context. Birnbaum (1992) conducted a rare holistic, longitudinal academic leadership study known as the Institutional Leadership Project.
Spanning five years, the ILP looked at multiple institutional types and leadership roles and used various data sources. A total of 762 open-ended interviews were conducted at thirty-two colleges and universities with presidents, senior administrative officers, heads of major committees of boards of trustees, and faculty leaders in an attempt to provide a detailed qualitative analysis of the presidency. In general, Birnbaum (1992) concluded that some presidents can make a difference, but he cautioned against a “one size fits all” scenario. As a result of his research, Birnbaum offered ten principles of good academic leadership. His principles include making a good impression, knowing how to listen, balancing governance systems, avoiding simplistic thinking, de-emphasizing institutional bureaucracy, re-emphasizing core values, focusing on institutional strengths, encouraging others to be leaders, evaluating one’s own performance, and knowing when to leave (Birnbaum, 1992, p. 172). According to Birnbaum, following these principles increases a college president’s chance of being exemplary and effective while decreasing incidents of failure.

Similar to Green (1989) and Birnbaum (1992), Bensimon and Neumann’s book (1993), Redesigning Collegiate Leadership: Teams and Teamwork in Higher Education, explored “models of teamwork in higher education, taking into account the leadership orientations of presidents and their executive officers” (p. xi). Their book was part of the larger Institutional Leadership Project (ILP), previously outlined by Birnbaum (1992). Based on interview data from seventy individuals at fifteen institutions, personal experience, and other data sources, the authors looked at the horizontal nature of how leaders of these divisions work together and solve problems (Bensimon & Neumann, 1993). They argued that most models of higher education leadership assume the process
of leadership to be the result of an individual, and for the most part, discount group
dynamics altogether (p. 16). Bensimon and Neumann summarized their position as
follows (p. 17):

First and foremost, we see the prevailing models as inadequate because all of
them cast leadership unequivocally as a quality of the individual rather than of the
group. Second, the prevailing models emphasize what people have in common,
or what they can come to have in common through the “vision” of the individual
leader. They thus detract attention from differences in how individuals construe
the world, thereby favoring the dominant (commonly established or authority-
centered) view over the private, personal perception and belief.

Bensimon and Neumann’s (1993) thesis is based primarily on the concept that
team leadership accepts differences among individuals, embraces these differences, and
brings them to the forefront for lively dialogue and open discussion, resulting in the
exploration of multiple viewpoints that may not have otherwise been discovered. Results
of their research point to three functions of presidential teams: the utilitarian function,
expressive function, and cognitive function. According to the authors, the utilitarian
function is task oriented and helps the president maintain a “sense of rationality” over the
organization (Bensimon & Neumann, 1993, p. 34). The expressive function is integrative
and associative and reinforces interconnectedness among group members. Finally, the
cognitive function promotes creativity and helps to expand the intelligence of individual
team members. The authors contend that the difference between real and illusory teams
is the result of the cognitive function – the most important element of effective teamwork
(Bensimon & Neumann, 1993, p. 54). Bensimon and Neumann concluded that a shared
responsibility for thinking is as important as a shared responsibility for doing, enhancing team learning and team engagement with the campus as a whole (1993, p. 145).

Clearly, higher education leadership research has resulted in conflicting views. The debate appears to center on the impact presidential leadership actually has on higher education institutions. For instance, Cohen and March (1986) believed that “[c]olleges make presidents, not the reverse” (p. 79) and “[c]ompared to the heroic expectations he and others might have, the president has modest control over the events of college life” (p. 2). Similarly, Bensimon et al (1989) proposed that transactional leadership, rather than transformational leadership, was more relevant to higher education organizations. They believed:

The conceptual foundations of transactional theory appear highly adaptable to those features of academic organizations most likely to obstruct transformational leadership: the concept of governance as a collective process that involves all important campus constituencies, with particular emphasis given to the participation of the faculty; the faculty’s discretion in deciding who should teach, who shall be taught, and what should be taught; and the faculty’s prerogative to declare no confidence in the president, which often has the same power to dismiss a president as does a vote by the college trustees. In normative organizations, the leader’s role is more appropriately seen as servant than as controller. (p. 75)

The author’s believed that failing academic leadership was not the result of a lack of charisma, but the result of a lack of “organizational competence” (p. 75). Birnbaum (1993) agreed, stating, “calls for more charismatic, transformational presidents are exercises in rhetoric, rather than responsible proposals for improvement” (p. 195).
Birnbaum (1993) argued that average or representative presidents increase their effectiveness by following his ten guiding principles, although he firmly questioned the actual impact presidential leadership has on an organization.

These conclusions are in obvious conflict with Peck’s (1983), Fisher et al’s (1988), and Fisher and Koch’s (1996, 2004) findings that university presidents posses transformational and entrepreneurial qualities that directly impact higher education organizations. They found effective presidents were more likely to be risk-takers, less collegial and more distant, visionary, hard workers, transformational, and entrepreneurial – all qualities that differentiated themselves from representative presidents. Extending the original work by Fisher et al. (1988), Fisher and Koch (2004) criticized Birnbaum’s research, citing problems with normative data including interviewer bias and the nonreplicable nature of his methodology. Supporting the need for further research grounded in scientific methods, Fisher and Koch (2004) stated, “The number of replicable, rigorous, large sample statistical studies of the American college presidency can be counted on one hand, and hence that is where our greatest need for additional knowledge currently resides” (p. 23). Their research concluded the following (p. 143):

Presidents are neither standardized lightbulbs nor pieces of Lego plastic that somehow can be inserted without visible pain or grain into any situation, with barely a notice of their service years later. In fact, a group of transformational, entrepreneurial presidents does exist today (our effective presidents), and these individuals are dynamic leaders, respectful of the roots of their institutions and the people with whom they work, but never fearful of leading and even anticipating necessary change.
Moreover, transformational and entrepreneurial presidents are energetic, charismatic, and exciting individuals who find opportunities where others are unable to see them (Fisher and Koch, 2004, p. 143). Fisher and Koch’s analysis is consistent with leadership research outside the academy, focusing extensively on the transformational leader and leadership from the chief executive’s perspective. However, the limited scope of leadership research of perspectives below the presidency raises many questions.

In summary, higher education leadership research at the presidential level leads to ambiguous conclusions. First, as most authors illustrate, the majority of research employs methodologies of qualitative form, drawing from personal anecdotes, case studies, and open-ended interviews. Qualitative research is naturalistic, inductive, and concerned with understanding multiple perspectives (Bogdan & Biklen, 2003), however in most contexts it does little to test hypotheses for statistical significance and, as Fisher and Koch (2004) state, “is nonreplicable in a scientific sense” (p. 21). Second, there are conflicting views of whether or not presidents actually have an impact on organizations (Bensimon et al, 1989; Bensimon & Neuman, 1993; Birnbaum, 1992; Cohen & March, 1974, 1986; Fisher & Koch, 1996, 2004; Green, 1988; Peck, 1983), which begs the question: Do presidents indeed have a direct impact on student learning, outcomes, and performance? Or, do leaders below the presidency actually have a greater impact on students? The proposition offered here is that executives below the presidency have the greatest impact on student learning, outcomes, and performance and thus, further research is necessary related to leadership and these positions.

Finally, from a broad sense, most higher education leadership research is conducted on the president and is concerned with highly effective leaders and their
qualities, characteristics, and/or traits that contribute to successful outcomes. Although progress has been made, existing higher education leadership research is consistent with early leadership theory in general, focusing on the “Great Man” and his “heroic” traits. Regardless, scholars have ignored leadership dynamics of other individuals on campus, exposing a need for future research.

Higher Education Leadership and Competence

Competence has been identified as an important element, tenet, or dimension necessary for effective higher education leadership. Birnbaum (1992) talked about competence related to the presidential role of articulating vision when he said “the real purposes of articulating a vision are to give constituents confidence in the leader’s competence” (p. 25). Having confidence in a leader’s competence is necessary for followers to move toward shared goals and outcomes (Birnbaum, 1992). Furthermore, Krahenbuhl (2004) points to competence as one of the most important qualities for deans to possess, while Hoppe (2003) suggests that in addition to intelligence, there are many competencies essential for academic leadership effectiveness.

Empirical evidence of the importance of competence for higher education leaders is detailed in Wolverton and Gmelch’s book (2002), College Deans: Leading From Within. They identified competence as one of three keys to a dean’s leadership success. According to Wolverton and Gmelch (2002), “competence refers to a dean’s ability to add value to an organization because of the technical knowledge base that he or she possesses” (p. 91). Consistent with Wolverton and Gmelch, Montez (2002) cited competence as one of five dimensions of higher education leadership. Competence “defines the work ethic of leaders” (p. 49), and includes expertise, working hard and
energetically, and balancing work with life. Furthermore, Kouzes and Posner (2003) found that the majority of higher education constituents in their research believe competence is an important characteristic for leaders to possess (p. 11).

Although competence has been widely identified as a significant component to higher education leadership, the following question remains: What specific competencies are necessary for effective leadership in higher education organizations? In an attempt to answer this question at the departmental level, Murry and Stauffacher (2001) identified 58 skills and behaviors, based on existing literature, for successful department chair administration. They surveyed three constituent groups: deans, faculty, and department chairs themselves. Each skill or behavior was categorized under one of eight dimensions: planning, organizing, staffing, leading, monitoring, decision making/problem solving, communicating, and human relating. Generally, they found that effective department chairs communicate well, promote trust and cooperation, and exhibit integrity and ethical behavior at all times (Murry & Stauffacher, 2001, p. 72).

As previously stated, Fisher and Koch (1996, 2004) believe CEOs of higher education institutions should be transformational and entrepreneurial. Important leadership characteristics cited in their book include flexibility, vision, charisma, innovation, risk taking, and commitment. Recently, Padilla (2005) profiled six prominent university presidents and identified eleven emerging patterns and characteristics consistent with each profile during their leadership periods. Some of the characteristics Padilla cites include interpersonal-skills, optimism, strong work ethic, as well as the absence of behaviors that often “derail” careers (2005, p. 254-256). Fisher and Koch (2004) and Padilla (2005) paint a more general picture with regard to describing
characteristics and traits associated with effective and successful presidents, however similar to Wolverton and Gmelch (2002) and Montez (2002) they fail to identify a set of detailed competencies central to higher education leadership.

As the literature implies, competencies necessary for effective higher education leadership span a wide spectrum, are confusing, and are ill defined. However, Elizabeth McDaniel (2002) offered a more sophisticated approach to identifying specific core competencies for higher education leadership. In her research, a group of 30 former American Council of Education (ACE) Fellows convened in an effort to identify characteristics and behaviors of executive leadership in higher education. After developing a set of comprehensive leadership competencies, the ACE Fellows distributed them to approximately 100 college and university presidents, vice presidents, former ACE Fellows, and other senior leaders in higher education for review. "The characteristics and behaviors they articulated were edited and organized into a comprehensive set of leadership competencies of effective senior leaders in higher education" (p. 83). To validate and refine the list further, the American Council of Education Leadership Commission, an advisory board to ACE made up of current college and university presidents, reviewed the leadership competencies and provided feedback. As a result, core leadership competencies were organized into four categories:

- Leadership Context Competencies
- Leadership Content Competencies
- Leadership Process Competencies
- Leadership Communication Competencies
The competencies outlined by McDaniel (2002) provide the impetus for studying higher education leadership within a competency framework. As McDaniel stated, “The competencies describe effective senior leaders in positions throughout higher education as exercising their leadership in a variety of settings, institutions, and styles. For a particular institution, sector, position, or style, the competencies can be modified or further elaborated” (p. 83).

This research seeks to extend McDaniel’s findings, within a leadership competency frame of reference (McClelland, 1973) by surveying three groups of higher education leaders that have a significant impact on student learning, outcomes, and performance: athletics directors, senior student affairs officers, and chief academic officers.

**Divisions of Governance Within Higher Education Institutions**

Cohen (1998) acknowledges the emergence of three clear administrative divisions – academic affairs, student affairs, and business affairs – during the “Mass Higher Education Era,” a period between 1945 and 1975. However, as higher education institutions became more dependent on outside forces, the division of external affairs also emerged. The context of the current study builds on the framework through which Bensimon and Neumann (1993) explored higher education leadership. Bensimon and Neumann (1993) cite four divisions that make up the organizational structure of higher education institutions: academic affairs, finance and administration, student affairs, and the relatively new division of external affairs or development. Each of these divisions reports directly to the president and all but finance and administration has a direct impact.
on student outcomes. However, as Bensimon and Neumann (1993) and others (Green, 1988) point out, little is known and understood about leadership below the presidency.

In support of Cohen (1998) and Bensimon and Neumann (1993), Padilla (2005) offered a similar analysis of higher education organizational dimensions. However, Padilla identified five components “requiring different managerial skills and leadership behaviors and embodiments” (p. 19):

- Governance and senior administration
- External development and entertainment
- Internal support operations
- Student affairs
- Academic enterprise

Although Padilla points to five dimensions, the governance and senior administration division generally refers to the president and board of trustees. The other four components – external development and entertainment, internal support operations, student affairs, and the academic enterprise – all fall under the president’s control, requiring unique leadership abilities.

For the purpose of this research, divisions of interest include only three outlined by Bensimon and Neumann (1993) and Padilla (2005): external development and entertainment, student affairs, and the academic enterprise. As mentioned in Chapter 1, these units have a significant impact on student learning, outcomes, and performance. The internal support operations unit includes the bureaucracies of budget and finance, physical plant operations, security, and human resources (Padilla, 2005, p. 27). This
division, typically supervised by a chief financial and business officer, is primarily responsible for the overall operations of the institution (Cohen, 1998; Padilla, 2005).

On the surface, the external development and entertainment function may appear to have a marginal impact on students. However, the external development and entertainment function includes fund-raising, public relations, alumni events, concerts, plays, art exhibitions, and athletics (Padilla, 2005). The administrators of these functional sub areas who have the greatest impact on students reside in the department of intercollegiate athletics, making athletics directors of primary interest within the external and entertainment function. The director of intercollegiate athletics typically reports to the president and occupies a visible place in the organizational structure of higher education institutions. Furthermore, athletics directors have been faced with tremendous pressure over the last decade to increase graduation rates, thus having a significant impact on student outcomes.

Padilla (2005) described the division of student affairs as “part development of young people; part police, health, and safety; and part litigation and law” (p. 27). The division of student affairs is often referred to as a “city within a city,” with broad responsibilities, large budgets, and hundreds of employees (Padilla, 2005) – all having a significant impact on the daily lives of students. The senior student affairs officer oversees this complex unit, and like the other units, typically reports directly to the president at large higher education institutions.

Finally, the academic enterprise is perhaps the most complex but least understood division on campus (Padilla, 2005). For all practical purposes, the university’s existence is based almost entirely on what occurs within the academic unit and, therefore, is
arguably the most important unit on campus (Padilla, 2005). The academic enterprise, led by the provost or vice president for academic affairs, is where the traditional mission of teaching, research, and service occurs. The academic function is what differentiates higher education from business and industry (Padilla, 2005). Here, the chief academic officer is responsible for multiple specialized academic units governed by deans and department chairs; where 80% of the academic decisions are made (Murry & Stauffacher, 2001). Furthermore, student learning, outcomes, and performance are the primary focus of the academic enterprise.

Despite the obvious influence of the divisions of athletics, student affairs, and academics on college and university students, most published literature on higher education leadership below the presidency has been limited to the dean’s position (Allen-Meares, 1997; Bright & Richards, 2001; Fagin, 1997; Gmelch, Wolverton, Wolverton, & Sarros, 1999; Green & Ridenour, 2004; 1999; Krahenbuhl, 2004; Lee & Hoyle, 2002; Montez, Wolverton, & Gmelch, 2002; Wolverton & Gmelch, 2002). In addition to the dean’s position, some attention has been dedicated to studying one of the most complex and challenging leadership positions in the academy, the department chair (Bennett, 1983; Carroll & Wolverton, 2004; Gmelch, 2004; Knight & Holen, 1985; Murry & Stauffacher, 2001; Tucker, 1984; Wolverton, Ackerman, & Holt, 2005). The focus of leadership research below the presidency on deans and department chairs is a testament to the importance placed on specialized academic units within higher education. However, administrative responsibilities of colleges and universities have changed significantly over the last thirty years (Filan & Seagren, 2003). Upper-level executive
leaders increasingly influence student success. From a research perspective, these leaders have been summarily ignored.

The Population: Athletics Directors, Senior Student Affairs Officers, and Chief Academic Officers

The following pages present a review higher education leadership through the lens of athletics directors, senior student affairs officers, and chief academic officers. To the extent of available research, the discussion focuses on competencies necessary and important for effective higher education leadership related to these executive positions.

Athletics Directors

The department of intercollegiate athletics is often referred to as the most controversial, yet rewarding on a college campus. Bowen and Levin (2003) defined intercollegiate athletics as “an activity in which representatives of one school compete against representatives of other schools – not just against themselves and not just against classmates” (p. 173). The nature of these activities falls within the external component of higher education. The exclusivity of intercollegiate athletics within the academy stirs debate among faculty and athletics administrators and demands a considerable amount of time and attention from an institution’s chief executive officer (Bok, 2003; Bowen & Levin, 2003; Padilla, 2005).

Despite what is known about the importance of leadership in higher education, a review of the literature results in no consistent theory of intercollegiate athletics leadership. Soucie (1994) found that notwithstanding limited publications in a very few scholarly journals, “doctoral dissertations constitute the major source of research
information on this topic” (p. 6). Furthermore, the majority of these dissertations are generally descriptive and behavioral in nature (Soucie, 1994), following a similar pattern in early presidential leadership research. In addition to the lack of resources available in higher education and sports management literature, scant research exists in business and economics publications as well (Bok, 2003; Padilla & Baumer, 1994).

The position of athletics director has evolved significantly since a regatta between Harvard and Yale marked the first intercollegiate athletics competition in 1852 (Lumpkin, 1998). Initially, intercollegiate athletics were student-organized and student-governed activities that were primarily recreational in nature (Hardy & Berryman, 1982). However, as college sports proliferated during the early years of the twentieth century, faculty members took governing responsibilities away from students and began operating athletics programs themselves (Hardy & Berryman, 1982; Drain, 1998). As Lucas and Smith (1978, p. 210) recount:

Students who had started it all were to forfeit their control partly because they were unable to effectively control athletic growth and partly because there were others who wanted to control college athletics for purposes in variance with those of the students. By early 1900s students had lost effective control of this most important aspect of the extracurriculum.

Shortly thereafter, competition and commercialization intensified as winning, prestige, and tradition became overriding principles that drove athletics programs (Bok, 2003; Lucas & Smith, 1978). Eventually, managing responsibilities, such as scheduling events, hiring and firing coaches, and running facilities, became increasingly complex. The formal position of athletics director emerged when Harvard became the first
university to officially fill the position in 1885 (Drain, 1998). As the organizational
structure of athletics took root, other universities quickly followed Harvard’s lead and the
formal position of athletics director became commonplace.

The role of the athletics director in the early years was to manage collegiate sports
while also serving as part of the faculty (Sperber, 1990). In subtle contrast to traditional
academic values, revenue from ticket sales and corporate sponsorships fueled the
interests of college athletics departments (Bok, 2003; Bowen & Levin, 2003). This
forced athletics directors to spend more time managing internal and external operations
and less time on teaching. By the middle of the twentieth century, the faculty function no
longer remained an important responsibility of athletics directors at most large
institutions.

The most common route to the position of athletics director was initially through
the coaching ranks (Fitzgerald, Sagaria, & Nelson, 1994). Fitzgerald et al. (1994) point
to evidence that the majority of athletics directors held the position of head coach at some
point in their career. As recently as 1983, Williams and Miller found that athletics
directors believed coaching was a valuable experience when leading athletics programs.
However, the authors were quick to note that “a background in coaching was being
increasingly questioned in meeting the competencies of an athletic administrator” (p.
403).

Despite the demand for more competent athletics administrators, little progress
has been made in research and preparation of athletics administrators. In 1982, Hardy
and Berryman found (p. 25):
The past century of development in collegiate athletics reveals that ambiguous and often conflicting goals and philosophies among students, coaches, faculty, administrators, alumni, and the general public have made it difficult if not impossible for governing structures that represent but one or two parties to control the actions of all. At the same time, however, even a cursory look at this history suggests that there have been, are, and will be, no simple solution to the problem.

Steir agreed (1987), “Examples of mismanagement, non-management, and inept management are everywhere” (p. 154), a pervasive and consistent theme in today’s intercollegiate athletics environment.

Recently, presidents have made attempts to evaluate athletics directors more on budget management, fund raising, ability to avoid NCAA sanctions, and graduating student-athletes (Padilla & Baumer, 1994), and less on wins and losses. Holding athletics directors accountable for graduation rates has forced athletics departments to increasingly collaborate and cooperate with academic units. As Stier and Schneider (2003) report, “The solving of, or elimination of, some of the problems in intercollegiate athletics are more apt to take place if athletics directors are better able to understand the expectations of their presidents” (p. 195). Evidence clearly suggests that university presidents expect modern day athletics directors to play a much larger role in student learning, outcomes, and performance.

Notwithstanding the recent trend to collapse and merge intercollegiate athletics within the academic enterprise, inherent conflicts exist between the commercialization of college sports and academic principles (Bok, 2003; Bowen & Levin, 2003; Dowling, 2001; Drain, 1998; Steir, 1987). On the surface, strong leadership is the most obvious
solution to this internal dilemma; however, a review of higher education leadership literature reveals a noticeable disconnect between academics and athletics. To mend this disconnect, Steir (1987) believed that it is the responsibility of academicians to conduct research on intercollegiate athletics within the greater context of academia, adopting a global view of higher education. Unfortunately, there is widespread failure to address these issues through the context of higher education leadership theory.

In their research, Bowen and Levin (2003) pointed to the widening gap of academic values and athletics integrity at NCAA division III, highly selective liberal arts and Ivy League institutions – institutions that have typically avoided the negative stereotype associated with academics and college sports. Although Bowen and Levin cite an extensive reform agenda, they ignored the context of leadership in their proposal. They did acknowledge, however, that athletics directors “most strongly committed to educational values and to the institutions that they serve, including many who are well aware of the problems posed by the athletic divide, can be quite conflicted” (p. 319). Further, they posited that “[t]heir expertise and understanding of the issues will be critically important to the success of any effort to achieve reform, but their role needs to be specified clearly and understood all around” (p. 319-329).

Similar to higher education leadership in general, research on athletics directors has focused on leader characteristics, traits, and behaviors (Branch, 1990; Evans, Ramsey, Johnson, Renwick, & Vienneau, 1986; Quarterman, 1992; Quarterman, 1994; Steir & Schneider, 2001; Stier & Schneider, 2003; Watkins & Rikard, 1991). In addition, studies on transformational leadership have been widely popular (Doherty & Danylchuk, 1996; Geist & Postore, 2002; Kent & Chelladurai, 2001; Lim & Cromartie, 2001).
Consequently, the majority of literature describes general administration and management responsibilities, with little regard to academic context and leadership.

Karlin (1995) suggested that an athletics director’s responsibilities include budget and finance, facilities, risk management, television contracts, academic progress of student-athletes, communication with the media, scheduling, marketing games and other events, corporate sponsorships, and external affairs, among others. As evidenced by this list, athletics directors need to pay close attention to student outcomes while concurrently running a commercialized business.

Although many authors have researched specific roles, responsibilities, and qualification of athletics directors (Karlin, 1995; Kinder, 1994; Stir & Schneider, 2003), there is shortage of information related to leadership and leadership competencies. Judd (1995) analyzed the perceptions directors of athletics and senior women administrators at NCAA division I, II, and III institutions and found management competencies of personnel, business/finance, communication, and personal development as most important. However, Judd combined athletics leaders of all three NCAA divisions, discounting potential organizational differences. Moreover, the context of Judd’s competency analysis is based on management and administration and not leadership. To account for differences between NCAA divisions, Nielsen (1989) surveyed participants at NCAA divisions I, II, and III with regard to perceived importance of athletic administration competencies. Results of Nielsen’s survey ranked enforcing NCAA rules, human relations, staff communications, decision-making, budget preparation and control, and interpretation of NCAA rules as the top six most important competencies. In general, her research concluded that limited differences exist between divisions as well as
between athletics directors and senior women administrators in their perception of competencies necessary for athletic administration. However, similar to Judd, Nielsen's frame of reference is based on management rather than leadership.

Steir and Schneider (2003) were the first to identify college and university presidents' perceptions of the personal qualities, attributes, and characteristics necessary for success of athletics directors at all three NCAA divisions. Their survey, based on a review of literature and feedback from subject matter experts, rated qualities, attributes, and characteristics on a five point Likert scale, ranging from essential to irrelevant. The most significant finding of their research indicated that 100% of college and university presidents at all three NCAA divisions believed honesty and trustworthiness to be the most essential qualities for the success of athletics directors (Steir & Schneider, 2003). The authors theorized that presidents hold trustworthiness and honesty in high esteem due to pervasive controversies that plague intercollegiate athletics. Steir and Schneider's research extended the current body of knowledge on athletics directors and important qualities and characteristics essential for success, but like most existing research on intercollegiate athletics, the context of leadership is largely ignored.

One is hard pressed to deny the importance of competent leadership in intercollegiate athletics and in the greater context of higher education. However, as Slack (1997) points out, "There has been no systematic attempt to study what it is leaders in sport organizations actually do and how they operate" (p. 301). Unfortunately, large amounts of published literature on sports organizations focus on sports in general rather than the specific domain of intercollegiate athletics (Broyles & Hay, 1979; Chelladurai, 1985; DeSensi & Rosenberg, 1996; Howard & Crompton, 1995; Masteralexis, Barr, &
Furthermore, the general essence of these reports review athletics from a *management* perspective rather than a leadership perspective – an important point of clarification.

In summary, the majority of literature related to leadership in intercollegiate athletics lacks consistency and is often based on loose theories that are of little relevance to the larger academic mission. As internal and external pressures increase and student development becomes a priority, athletics directors of the future face dynamic challenges that will require sophisticated leadership. Despite a limited attempt to address leadership competence in college sports, the context of *management* drives the majority of discussion. This gap has contributed to ill prepared athletics directors, resulting in a longstanding disconnect between athletic and academic departments that remains insidious. Furthermore, research on the importance of core competencies for effective higher education leadership as perceived by athletics directors is missing altogether.

**Senior Student Affairs Officers**

The division of student affairs is one of the largest, most dynamic and complex units on a college campus. It requires specialized practitioners with diverse skills and abilities. In 1976, Miller and Prince (1976) stated that “[t]he student affairs practitioner, worker, or professional is a staff member who carries out the responsibilities of this subdivision, including such functions as counseling, career planning and placement, housing, and coordinating student activities (p. 3).” Likewise, Padilla (2005) described student affairs as a division that employs “hundreds of people in areas like student housing, health services, counseling and guidance, food services, admissions, registration, and financial aid” (p. 28). Student affairs leaders must balance
organizational responsibilities that have a tremendous impact on student development, learning, and outcomes (Miller & Prince, 1976), while employing critical business practices that keep the operation running efficiently and effectively (Woodard, Love, & Komives, 2000).

Consistent with the lack of empirical, rigorous research on athletics directors, literature on senior student affairs officers is also relatively weak. Despite the assertion that leadership competence is important for today's student affairs leaders (Woodard et al., 2000; Barr & Albright, 1990; Barr, Desler, & Associates, 2003), existing research on the topic is virtually non-existent. As a result, student affairs practitioners know little more about leadership in the greater context of the university today than they knew in the past.

In general, many of the modern administrative positions that currently exist within the United States higher education system developed as a result of the rapid increase in student enrollments that occurred during what Cohen (1998) called the "Emergent Nation Era." The "Emergent Nation Era" marked the period just after the ratification of the United States Constitution through the end of the nineteenth century (Cohen, 1998, p. 51). Students, initially supervised by the president and faculty, began forming literary clubs, debate societies, and fraternities and sororities, and at the same time putting a strain on resources, such as room, board, health centers, and other services and programs (Barr & Albright, 1990; Cohen, 1998). As the demand for student services increased throughout the nineteenth century, presidents began devoting more time to fundraising and community relations while faculty faced increased pressures to carry out research (Barr & Albright, 1990; Cohen, 1998). A hierarchy of administration, teaching, and
Research began to take root and thus advanced the necessity for the position of senior student affairs officer.

Pioneering the majority of advancements in higher education administration, Harvard appointed the first student affairs dean in the late nineteenth century (Sandeen, 1991, 2000). Initially, student affairs leaders were known as the dean of men and the dean of women (Dressel, 1981; Sandeen, 1991) and eventually dean of students (Rickard, 1985). As the position grew more complex, director of student affairs, vice president for student affairs, vice president for student development, and senior student affairs officer were used to reflect increased responsibilities (Ostroth, Efird, & Lerman, 1984; Rickard, 1985; Risacher, 2004). These titles remain in use today, depending on the size and scope of the institution.

The most consistent path to senior student affairs officer is somewhat unclear and ambiguous. In the early years, most student affairs professionals came from the ranks of the faculty (Sandeen, 1991). However, as roles and responsibilities began to increase in the early half of the twentieth century, graduate programs emerged to train future student affairs administrators (Sandeen, 1991). In 1984, Ostroth et al. found no distinct route to the chief student affairs officer (CSAO) position. The authors' findings showed that over 50% of CSAOs held lower-level positions within student affairs prior to being promoted. Conversely, almost one-third of CSAOs were appointed to their position without any previous experience in the profession. On average, respondents served for nearly six years in the student affair profession prior to becoming a CSAO. Compared to previous studies, Ostroth et al. (1984) noted that CSAOs were older, more educated, and less likely to change jobs than in the past. A logical explanation for these findings is that the
position has become more complex over time, thus requiring more education and professional experience.

Dressel (1981) summarized the responsibilities of early senior student affairs officers, which included controlling student conduct, promoting moral integrity, and expelling homosexuals, pregnant women, and other individuals who did not demonstrate exemplary behavior. At the time, in loco parentis meant campus leaders had a responsibility to ensure the safety and well being of students, adding significant pressure and anxiety to the job of a student affairs administrator (Barr & Albright, 1990; Cohen, 1998; Dressel, 1981). According to Barr and Albright (1990):

Expectations that student affairs should control student behavior still exist for many associated with colleges and universities, including some parents and members of local communities. In addition, we must recognize that in loco parentis remained an operating principle for many institutions even through the court challenges of the early sixties and seventies. (p. 183-184)

As American higher education institutions continued to experience expansion throughout the twentieth century, “[u]nbridled growth brought increased demands for housing, health care, food services, admissions, placement services, and the like” (Barr & Albright, 1990, p. 184). Concurrently, diversity was an important initiative as disabled, minority, and adult students pushed for equal access and demanded services that met individual-specific needs (Barr & Albright, 1990).

Little has changed regarding the expectations of student affairs officers within the greater context of higher education. Confusion, ambiguity, and the unpredictable nature of the profession are still prevalent (Dalton & Gardner, 2002). However, experts believe
Senior student affairs officers should be prepared to manage a changing environment well into the future (Dalton & Gardner, 2002; Woodard et al., 2000). In their article, Dalton and Gardner (2002) point to eleven changes that are important to consider for senior student affairs officers. Some of these changes include presidential appointments, organizational restructuring, new campus initiatives and policies, economic variance, advancement of technology, and personnel turnover (p. 39). Questions remain, however, regarding the competencies necessary for effective leadership in times of consistent change that appears commonplace in divisions of student affairs.

The changing and ambiguous nature of student affairs points to the importance and necessity of strong, entrepreneurial leadership. As recently as 1990, Barr and Albright stated, “One important agenda item for the future will be an intentional focus on the skills and competencies needed for effective leadership in student affairs; regardless of the organizational alignment, leadership does make a difference” (p. 192). The need to expand higher education leadership research beyond the presidency has been well documented (Bensimon et al., 1989; Green, 1988). Up until now, the majority of literature on senior student affairs officers has been written from a management context rather than a leadership context and is typically exploratory, anecdotal, and qualitative in nature (Dalton, 2002; Dalton & Gardner, 2002; Sandeen, 2001; Thomas, 2002; Woodard et al., 2000).

In 1976, Miller and Prince emphasized the roles and responsibilities of student affairs practitioners related to student development, providing a theory to integrate human development concepts into higher education. Their proposition remains useful for understanding the importance and role of senior student affairs officers as they relate to
the complete development of postsecondary education students, however it lacks a discussion on the role leadership plays in fostering human development outcomes.

In their book, Barr and Associates (1993) detailed a practical analysis of essential skills and competencies for senior student affairs officers. They identified program planning, program evaluation, outcomes assessment, budgeting and fiscal management, translating theory into practice, understanding legal constraints, building campus and community relationships, conflict management, maintaining high ethical standards, and dealing with crises as important elements for managing student affairs (Barr & Associates, 1993, p. 197-348). In a case study approach on leadership in student affairs administration, Sandeen (2000) offered a list of skills essential for effective leadership by senior student affairs officers. Sandeen’s list includes skills, such as managing budgets, human resources, and making tough decisions. Barr and Associates (1993) and Sandeen (2000) offer a glimpse at the necessary competencies for effective leadership in student affairs, however their conclusions are based primarily on personal experiences and consultations with colleagues rather than empirical data.

Woodard et al. (2000) identified student affairs leadership competencies as an important topic deserving of its own chapter in *New Directions for Student Services*. The authors point to entrepreneurship, resource attraction, organizing around the assessment of learning and development outcomes, employing multiple frames of reference, technology adaptation and application, and futures forecasting as important competencies (Woodard et al., 2000). Furthermore, they framed their discussion of competencies within the context of leadership, a significant advancement in student affairs leadership research. Woodard et al.’s (2000) proposition that student affairs officers should be
entrepreneurial is consistent with Peck (1983), Fisher et al. (1988), and Fisher and Koch's (2004) conclusions that the most successful college presidents possess entrepreneurial behaviors, attitudes, and beliefs. Woodward et al. believed the entrepreneurial senior student affairs officer should take individual initiative, be proactive, and influence change.

Furthermore, Rogers (2003) framed her discussion on leadership around the necessary competencies, behaviors, and beliefs that serve as a foundation for student affairs professionals as effective, collaborative leaders. The following list summarizes Rogers' leadership competencies (459-463):

1. Ongoing self-development and change
2. Building authentic relationships with diverse others
3. Structuring a collaborative learning environment
4. Sharing power
5. Engaging in creative conflict conducted with civility
6. Forging shared purposes
7. Asking critical questions
8. Developing a systematic review

The aforementioned literature provides a clue to the direction senior student affairs officer leadership research is heading. In a recent study using a replication of the Fisher et al. (1988) Effective Leadership Inventory, college presidents who formerly served as senior student affairs officers (SSAOs) were surveyed and results compared to the results from Fisher et al.'s 1988 study (Risacher, 2004). Risacher (2004) found that SSAO presidents shared similar characteristics to those of the effective presidents of the
Fisher et al. (1988) study. Although it would be inappropriate to conclude that all senior student affairs officers would make effective college presidents, Risacher’s findings strengthen the limited body of knowledge that claims effective senior student affairs leadership is entrepreneurial in nature. Moreover, Risacher’s research emphasizes the importance of understanding the necessary knowledge, skills, and abilities to serve in the position of senior student affairs officer.

To summarize, the responsibilities of senior student affairs officers have increased in parallel with the proliferation of higher education institutions and growth in student enrollments. However, as the position has become more sophisticated, leadership research has not. Similar to athletics directors, most studies related to student affairs leadership are anecdotal, qualitative, and exploratory with little regard to scientific rigor. In addition, management seems to frame most of the discussion on important knowledge, skills, and abilities necessary for effective senior student affairs administration. Although it appears the research on student affairs leadership is more advanced than the research on athletics leadership, it remains insufficient for current and aspiring student affairs practitioners who seek to understand the profession within the context of higher education organizations, and the competencies necessary for effective leadership.

Chief Academic Officers

The chief academic officer (CAO), also known as the provost, occupies one of the most challenging, complex, and dynamic leadership positions within post-secondary institutions (Bright & Richards, 2001; Ferren & Stanton, 2004). Commonly referred to as provost, vice president, or vice chancellor for academic affairs (Bright & Richards, 2001), the CAO is “loosely responsible for several ‘strategic business units’ (the various...
colleges and professional schools), each with its own relatively independent leadership” (Padilla, 2005, p. 28). Here, the academic function of the university is carried out by highly specialized personnel, responsible for expanding knowledge and generating ideas (Padilla, 2005). The decisions made by the chief academic officer directly impact the core learning environment on campus (Hayes, 1997, p. 81).

Those external to campus and some internally, often misunderstand the role of the chief academic officer. Bright and Richards (2001) offered this analogy:

The provost is the dean’s boss, or perhaps landlord: the college is a living space that in the last analysis belongs to the provost, and the dean is currently responsible for its upkeep and periodic renovation. Cause too much unwelcome noise, or let the property fall into disrepair, or fall behind in the payments, and the landlord may decide not to renew the lease. In contrast, if the property gains in public appeal and measurable value, then nobody is more pleased than the person upstairs. (p. 231)

A consistent theme has emerged related to the breadth and depth of empirical leadership research on positions below the presidency, and the chief academic officer bears no exception. Although there has been a steady flow of inquiry into the dean’s position in recent times (Allen-Meares, 1997; Bright & Richards, 2001; Fagin, 1997; Gmelch, Wolverton, Wolverton, & Sarros, 1999; Green & Ridenour, 2004; 1999; Lee & Hoyle, 2002; Krahnenbuhl, 2004; Montez, Wolverton, & Gmelch, 2002; Wolverton & Gmelch, 2002), the CAO has been largely ignored. In fact, most literature on the CAO is prescriptive and “how to” in nature, drawing from personal experiences, observations,
and case studies (Ehrle & Bennett, 1988; Ferren & Stanton, 2004; Martin, Samels, & Associates 1997).

Within an historical context, formal academic administrative structures began to emerge shortly after the appearance of deans in the 1890s (Brubacher & Rudy, 1997; Cohen, 1998). Initially, the center of authority remained in the office of the president with deans managing individual schools (Cohen, 1998). Academic departments were supervised by department chairpersons and became increasingly democratized over time (Cohen, 1998). As Cohen found:

Early in the [twentieth] century the departments gained control of appointments so that except in the smallest institutions, although the trustees retained the final say, new instructors were employed on the recommendation of the department. The departments developed their own curriculum and examinations and controlled the academic requirements for students who would gain a degree in their specialty. (p. 155)

Similar to other divisions within higher education institutions, dramatic enrollment growth throughout the twentieth century led to multiple layers of administration. Faculty began to organize themselves into governing bodies known as academic senates. As Cohen (1998) described, “The academic senates had become increasingly well organized and powerful. They had almost total responsibility for what happened within the departments and gained various universitywide responsibilities as well” (p. 247). Eventually, however, nonacademic administrative personnel began to increase in number (Brubacher & Rudy, 1997), diminishing to some degree the power faculty had over decisions made at the administrative level.
In contrast to other divisions of higher education institutions, the academic function resisted administrative formalities due in large part to the nature of shared governance and an independent workforce comprised of faculty. Unlike their administrative counterparts, most chief academic officers advanced through the faculty ranks, typically falling into administration by accident. In 1971, Bolton and Genck proposed a need for more sophisticated and competent levels of administrators to guide academic affairs. At the time, they detected that traditional university models employed only two key management positions: the president and dean. Calling for a quicker response to the increasing demands for management, they asserted that levels of management between these two positions have been limited (Bolton & Genck, 1971, p. 282). Furthermore, the authors observed that only “a very small group of executives has been attempting to fulfill the total management requirements of the university, and their number has typically not expanded significantly during the recent decades of rapid growth in university size and complexity” (p. 282).

In anticipation of future growth, Bolton and Genck (1971) recommended spreading the management workload to additional administrators at the top of the organization and formally creating the position of chief academic officer to ensure three key responsibilities were met (p. 288):

- Recommending academic objectives, strategy, resource allocations, organizing, and staffing
- Participating in the selection and development of key academic administrators
• Providing leadership to the academic officers and deans toward educational innovation and excellence, and ensuring appropriate integration of their programs and activities

Glenny (1972) agreed with Bolton and Genck’s (1971) observations that higher education institutions required more sophisticated executive leadership. Academic officers were needed to carry out graduate and research programs, educational innovations, staffing top administrative personnel, and selecting, promoting, and compensating faculty for various schools (Bolton & Genck, 1971, p. 289). These observations were taken seriously, as the last half of the twentieth century saw a proliferation of academic managers, administrators, and leaders flood American higher education institutions (Brubacher & Rudy, 1997; Cohen, 1998).

Today, the chief academic officer assumes the role of internal manager, overseeing the overall operations of the university and working in close collaboration with the deans (Bright & Richards, 2001). In addition to academic departments, all academic support units fall under the control of the CAO, including the libraries, information technology, academic computing, and the university press (Bright & Richards, 2001, p. 233). The CAO is also responsible for campus budgets, policies, and decisions that affect the greater institutional organization (Bright & Richards, 2001).

Consistent with most higher education leadership literature, much has been written about the roles and responsibilities of chief academic officers (Brown, 1984; Ehrle & Bennett, 1988; Ferren & Stanton, 2004; Mangieri & Arnn, 1991; Martin, Samels, & Associates 1997, Martin & Samels, 1999; Mech, 1997). In one study, Mech (1997) surveyed chief academic officers and asked them to indicate the extent to which each of
the managerial roles, as determined from previous management research, were required in their present job (p. 288). Mech found the roles of leadership and resource allocator to be the most significant, emphasizing that an individual focused on internal operations and developing a “smooth-running operation” (p. 291). Furthermore, Mech (1997) concluded the CAO to be an individual bent toward collaboration and consensus building rather than autocratic dictatorship. Mech’s analysis points to the importance chief academic officers place on the role of leadership in their daily jobs.

In another study on the responsibilities and qualifications of the chief academic officer, Mangieri and Arnn (1991) surveyed faculty senate leaders to “identify the most important responsibilities and qualifications of those frequently associated with the role of a chief academic officer” (p. 12). Responsibilities and qualifications were drawn from those most commonly found in chief academic officer position descriptions. Results indicated that “evidence of successful leadership in administration and management” was ranked second to “ability to work with academic groups and other constituencies as appropriate” (Mangieri & Arnn, 1991, p. 15). The emphasis of the research by Mangieri and Arnn (1991) on the internal operations and management of the academy rather than leadership knowledge, skills, and abilities, is consistent with the majority of literature on the chief academic officer (Ehrle & Bennett, 1988; Brown, 1984; Ferren & Stanton, 2004; Mangieri & Arnn, 1991; Martin & Samels, 1997; Mech, 1997). However, both Mech (1997) and Mangieri and Arnn (1991) point to leadership as an important role and responsibility of the chief academic officer.

The chief academic officer as a manager rather than a leader seems to be a persistent theme. Although the management premise with an emphasis on roles and
responsibilities is consistent among athletics directors and senior student affairs officers, it is more prevalent in the chief academic officer literature. Even those who claim to discuss the chief academic officer from a leadership perspective seemingly revert to a discussion on management. For example, in their book *Leadership Through Collaboration*, Ferren and Stanton (2004) “tease out the practical implications” (p. x) of roles and responsibilities of the chief academic officer exploring topics, such as strategic planning, facilities, technology, and program review. Their book fails to provide any substantive review of higher education leadership related to the academic enterprise. Likewise, publications offered by Brown (1984) and Martin and Samels (1997) focus specifically on managing academics and offer only a brief, subjective analysis of academic leadership.

The roles and responsibilities of chief academic officers have grown in complexity and sophistication as illustrated throughout the literature. However, with distinct similarity to athletics directors and senior student affairs officers, leadership research on the CAO lacks consistency, scientific rigor, and is mostly written from a management context. The most obvious reason for these shortcomings is because the chief academic officer is often viewed as the chief operations officer, responsible for the internal systems that keep colleges and universities running. Yet, the academic enterprise has the greatest responsibility for educating students and requires competent leadership for effective and successful organizational outcomes.
Summary and Review

Leadership has been studied within multiple contexts, situations, and environments. The most popular theories spanning the last century include trait theory, situational approach, contingency theory, interaction/exchange theories, and transformational theory (Bass, 1990). McClelland (1972) argued that competence, rather than intelligence, more accurately predicts successful life outcomes, providing a relevant lens through which the study of leadership can occur. Moreover, current research indicates that competence is an important element for effective and successful leadership in higher education (Birnbaum, 1992; Kouzes & Posner, 2003; Krahenbuhl, 2004; Montez, 2002; Wolverton & Gmelch, 2002).

Higher education organizations are made up of five divisions. The first, governance and senior administration, is comprised of the president and board of trustees (Padilla, 2005). The other four – external development and entertainment, business operations, student affairs, and academic affairs – all fall under the president’s control (Cohen, 1998; Bensimon & Neumann, 1993; Padilla, 2005). Core higher education leadership competencies have been identified by McDaniel (2002) and validated through an extensive literature review and development of a nomological network (presented in the next chapter). However, questions remain regarding core competencies important for effective and successful leadership as perceived by executives in positions below the presidency.

Three executive positions have a significant impact on student learning, outcomes, and performance and have received little attention in the higher education
leadership research. These positions are athletics director, senior student affairs officer, and chief academic officer. The fourth executive position, chief financial and business affairs officer, is primarily concerned with internal support operations and is of little concern to this research.

The literature review presented here reveals that little scientifically rigorous research (in terms of replicability) exists that focuses specifically on athletics directors, senior student affairs officers, and chief academic officers. As discovered through an intensive review of the literature, research on core leadership competencies within the greater context of higher education and from multiple perspectives has been largely ignored. The study reported hereinafter attempts to fill that gap.

The following chapter presents a nomological network consisting of an intensive literature review specific to McDaniel’s (2002) exploratory research on higher education leadership competencies. The nomological network ties together existing theory and underlying constructs related to McDaniel’s higher education competency model.
CHAPTER 3

NOMOLOGICAL NETWORK

Introduction

As stated throughout the first and second chapters, McDaniel’s (2002) research on “core” higher education leadership competencies serves as the foundation for the current research. Through qualitative methods, a “[c]onsensus of higher education leaders was used to create and then to validate the set of competencies” (McDaniel, 2005, November 9). These competencies were divided into four categories: context, content, process, and communication (McDaniel, 2002). In addition to McDaniel’s qualitative research, higher education leadership competencies are also described in multiple contexts throughout existing literature. To strengthen the validity of McDaniel’s research, a nomological network (net) is presented in the following pages. A nomological network is a methodological approach that is used to identify and present theoretical relationships, or constructs, in a systematic way and relate them back to observable indicators (Cronbach & Meehl, 1955).

Each section presents a table summarizing the nomological net for each of McDaniel’s core competency categories. Associated subcategories emerged and are presented with a description and appropriate supporting references in an effort to illustrate theoretical relationships. In some cases, competency statements listed in this
section have been revised and modified from McDaniel's original model, as discussed in more detail in the next chapter.

**Context Leadership Competencies**

The first higher education leadership competency category outlined by McDaniel (2002) is referred to as **Context**. The following three subcategories emerged and were labeled accordingly to explain higher education leadership **Context** competencies.

- Organizational Context
- Cultural Context
- Constituency Context

**Organizational Context** can be defined as a leader's understanding of dimensions, trends, and complex issues related to the United States system of higher education. It defines higher education leadership from a broad sense. Higher education institutions are unique organizations operating within a unique environmental context. They are complex, unpredictable, and interdependent (Padilla, 2005, p. 16). Competent leaders must be able to relate general knowledge about the U.S system of higher education to specific institutions and use that knowledge for effective decision-making.

**Cultural Context** includes the ability to recognize and embrace institutional culture and its influence on the leader and the decision-making process. Higher education institutions are rich in tradition and operate within a culture of shared governance, faculty independence, and collaborative decision-making (Green 1988; Padilla, 2005). According to McDaniel, effective leaders must understand the institutions culture and its impact on the organization.
Finally, Constituency Context refers to a leader’s ability to build relationships with multiple constituent groups and stakeholders, including trustees, accrediting agencies, businesses, alumni, community organizations, colleagues, state and federal government agencies, media, and others. The Constituency Context sub-category emphasizes the importance of building relationships for effective higher education leadership (Altbach, Berdahl, & Gumport, 2005; Filan & Seagren, 2003; Gilley, Fulmer, & Reithlingshoefer, 1986, Julius, Baldridge, & Pfeffer, 1999; Rosenzweig, 2001). Higher education leaders must have the competence and wherewithal to navigate a highly political environment consisting of competing interests among stakeholders.

Table 1 presents competency statements for the category of Context Leadership Competencies as determined by McDaniel. Subcategories are labeled and illustrated with appropriate supporting literature.
<table>
<thead>
<tr>
<th>Competency Statement</th>
<th>Subcategory</th>
<th>Supporting Literature</th>
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<tbody>
<tr>
<td>Demonstrates understanding of complex issues related to higher education</td>
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<tr>
<td>Attentive to emerging trends in higher education</td>
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<tr>
<td>Embraces institutional culture</td>
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<td>Considers institutional culture in decision making</td>
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<tr>
<td>Develops partnerships with multiple constituent groups</td>
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<tr>
<td>Sustains productive relationships and networks with colleagues</td>
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<td></td>
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<tr>
<td>Applies skills to affect decisions in government context</td>
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<td>Works effectively with media</td>
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### Content Leadership Competencies

The second higher education leadership competency category outlined by McDaniel (2002) is referred to as *Content*. The following two subcategories emerged to explain higher education leadership *Content* competencies:

- Organizational Content
• Strategic Planning Content

Organizational Content refers to the various functions that define the organizational structure of higher education institutions (Bess & Webster, 1999; Brown, 2000; Cohen, 1998; Goodchild & Wechsler, 1997). Competent leaders of higher education institutions must understand and be knowledgeable about academics, student affairs, advancement, athletics, technology, and legal issues. Higher education institutions are diverse organizations, requiring leaders to be well informed about multiple organizational elements.

The second subcategory, Strategic Planning Content, refers to a leader's ability to understand strategic planning processes and how they relate to the mission and goals of the institution. Competent leaders must understand finance, budgeting, and institutional planning and their interconnectedness. Furthermore, leaders must maximize the distribution and allocation of resources throughout various campus units to achieve desired outcomes. They must embrace and foster the development of learning organizations during the strategic planning process, while supporting programs that enhance diversity, equality, and access. Finally, competent leaders should be strategic thinkers and problem solvers.

Table 2 presents competency statements for the category of Content Leadership Competencies as determined by McDaniel. Subcategories are labeled and illustrated with appropriate supporting literature.
### Table 2. Content Leadership Competencies

<table>
<thead>
<tr>
<th>Competency Statement</th>
<th>Subcategory</th>
<th>Supporting Literature</th>
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<tbody>
<tr>
<td>Demonstrates understanding of student affairs administration</td>
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<tr>
<td>Demonstrates understanding of advancement (e.g., fundraising, development, external relations, alumni relations, etc.)</td>
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<tr>
<td>Demonstrates understanding of athletics</td>
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<tr>
<td>Demonstrates understanding of technology</td>
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<td></td>
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<tr>
<td>Demonstrates understanding of legal issues</td>
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<tr>
<td>Demonstrates understanding of planning</td>
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<tr>
<td>Leverages institutional resources for maximum benefit</td>
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<tr>
<td>Fosters the development and creativity of learning organizations</td>
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<td></td>
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<tr>
<td>Demonstrates understanding of diversity</td>
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<tr>
<td>Applies multiple skills to solve problems</td>
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**Process Leadership Competencies**

The third higher education leadership competency category outlined by McDaniel is referred to as *Process*. The following three subcategories emerged to explain higher education leadership *Process* competencies:

- Behavioral Process
• Entrepreneurial Process
• Leadership Development Process

*Behavioral Process* refers to the leader’s knowledge and understanding of leadership relevant to higher education and the behavior necessary to achieve successful outcomes. In this sense, higher education leaders should behave in a way that fosters a lighthearted environment. Moreover, leaders should be unselfish, have a strong sense of integrity and values, and support the leadership of others. They should possess strong negotiation skills and make decisions consistent with the mission and goals of the institution. Finally, higher education leaders should be inclusive, collaborative, and be team oriented.

The second subcategory, *Entrepreneurial Process*, refers to a leader’s creativity, flexibility, risk-taking nature, and adaptability. A leader must tolerate ambiguous systems and processes and not be afraid to take risks. In addition, leaders should be change agents, resourceful, and understand and attend to the needs of contemporary students. The entrepreneurial leader has occupied a significant place in recent higher education leadership literature and is clearly documented within McDaniel’s model.

*Leadership Development Process* refers to the idea that leaders should be lifelong learners while encouraging professional development and training. Here, leaders should understand human behavior and their impact on others. They should learn from self reflection, learn from others, and learn from experience. Leaders must continually refine their knowledge and accept new information in an effort to help guide decisions. Leader must be aware of what they know and do not know, and have the ability to be flexible and consider multiple resources of information when necessary.
Table 3 presents competency statements for the category of Process Leadership Competencies as determined by McDaniel. Subcategories are labeled and illustrated with appropriate supporting literature.

Table 3. Process Leadership Competencies

<table>
<thead>
<tr>
<th>Competency Statement</th>
<th>Subcategory</th>
<th>Supporting Literature</th>
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<tbody>
<tr>
<td>Recognizes...</td>
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<td>Does not take self too seriously</td>
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<td>Acts consistent...</td>
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<tr>
<td>Supports leadership of others</td>
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<tr>
<td>Demonstrates negotiation skills</td>
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<tr>
<td>Demonstrates inclusiveness...</td>
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<tr>
<td>Builds effective teams</td>
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<tr>
<td>Contributes to effective teamwork</td>
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<tr>
<td>Tolerates ambiguity</td>
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<tr>
<td>Demonstrates courage for educated risk-taking</td>
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<tr>
<td>Accurately assesses costs...</td>
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<tr>
<td>Demonstrates resourcefulness</td>
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<tr>
<td>Responds appropriately...</td>
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<tr>
<td>Facilitates the change process</td>
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<td></td>
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<tr>
<td>Responds to issues of contemporary students</td>
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<td></td>
</tr>
<tr>
<td>Understands impact on others</td>
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<td></td>
</tr>
<tr>
<td>Seeks to understand human behavior in multiple contexts</td>
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<td></td>
</tr>
<tr>
<td>Learns from self reflection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learns from others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learns from experience</td>
<td></td>
<td></td>
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<tr>
<td>Encourages professional development</td>
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<tr>
<td>Demonstrates the capacity for lifelong learning</td>
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Communication Leadership Competencies

The fourth higher education leadership competency category outlined by McDaniel (2002) is referred to as Communication. The following three subcategories emerged to explain higher education leadership Communication competencies:

- Collaborative Communication
- Passive Communication
- Active Communication

Collaborative Communication refers to the leader’s ability to engage multiple perspectives and units in decision-making. Leaders should possess the ability to facilitate effective communication among people with different perspectives. Higher education organizations require a democratic, shared governance style of leadership. Collaborative communication is necessary to produce effective organizational outcomes.

Next, Passive Communication competencies refer to a leader’s ability to communicate non-verbally. These competencies include attentive listening and analytical thinking to enhance communication in complex situations. Furthermore, passive communication refers to one’s professional presentation. For instance, competent leaders should dress appropriately, attend to hygiene, and display appropriate etiquette in various situation.

The third and final communication subcategory has been labeled as Active Communication. Active Communication refers to communicating effectively with multiple constituent groups, in multiple written formats, such as letters, memos, and emails, and in multiple oral and written contexts. A leader should be able to effectively communicate a vision for the organization. In addition, effective leaders should
demonstrate the ability to diplomatically engage in controversial issues with multiple individuals and groups.

Table 4 presents competency statements for the category of Communication Leadership Competencies as determined by McDaniel. Subcategories are labeled and illustrated with appropriate supporting literature.

Table 4. Communication Leadership Competencies

<table>
<thead>
<tr>
<th>Competency Statement</th>
<th>Subcategory</th>
<th>Supporting Literature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engages multiple perspectives in decision making</td>
<td>Collaborative</td>
<td>Bensimon &amp; Neumann, 1993; Birnbaum, 1992; Birnbaum &amp; Eckel, 2005; Cohen &amp; March,</td>
</tr>
<tr>
<td>Engages multiple units in decision making</td>
<td>Communication</td>
<td>1986; Dressel, 1981; Ferren &amp; Stanton, 2004; Filan &amp; Seagren, 2003; Green, 1988;</td>
</tr>
<tr>
<td>Facilitates effective communication among people with different perspectives</td>
<td></td>
<td>Hoffman &amp; Summers, 2000; Kouzes &amp; Posner, 2003; Padilla, 2005</td>
</tr>
<tr>
<td>Applications listening skills to enhance communication in complex situations</td>
<td>Passive Communication</td>
<td>Bensimon &amp; Neumann, 1993; Birnbaum, 1992; Collins, 2001; Dressel, 1981; Filan &amp;</td>
</tr>
<tr>
<td>Applications analytical thinking to enhance communication in complex situations</td>
<td></td>
<td>Seagren, 2003; Fisher &amp; Koch, 1996; Fisher, Tack, &amp; Wheeler, 1988; Gilley, Fulmer,</td>
</tr>
<tr>
<td>Presents self well professionally as a leader</td>
<td></td>
<td>&amp; Reithlingshoefer, 1986; Green, 1988; Julius, Baldrige, &amp; Pfeffer, 1999; Kouzes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&amp; Posner, 2003; Padilla, 2005; Wolverton &amp; Gmelch, 2002</td>
</tr>
<tr>
<td>Communicates vision effectively</td>
<td>Active Communication</td>
<td>Bensimon &amp; Neumann, 1993; Birnbaum, 1992; Birnbaum &amp; Eckel, 2005; Cohen &amp; March,</td>
</tr>
<tr>
<td>Communicate effectively with multiple constituent groups in multiple contexts</td>
<td></td>
<td>1986; Dressel, 1981; Filan &amp; Seagren, 2003; Fisher &amp; Koch, 1996; Gilley, Fulmer, &amp;</td>
</tr>
<tr>
<td>Communicates effectively</td>
<td></td>
<td>Reithlingshoefer, 1986; Green, 1988; Kouzes &amp; Posner, 2003; McLaughlin, 2004;</td>
</tr>
<tr>
<td>Expresses views articulately in multiple contexts (oral, written, etc.)</td>
<td></td>
<td>Padilla, 2005</td>
</tr>
<tr>
<td>Demonstrates ability to diplomatically engage in controversial issues</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 4

METHODOLOGY

Introduction

The purpose of this research is to extend existing knowledge of core higher education leadership competencies and their importance to senior leaders (athletics directors, senior student affairs officers, and chief academic officers) working in higher education administration. The preceding chapters presented an introduction to the current study and comprehensive literature review detailing the underlying construct and frame of reference for studying leadership competencies in higher education. This chapter outlines the methodology used to test McDaniel’s (2002) theory of higher education leadership competencies and examines the similarities and differences of the perceptions of the sample populations. For this purpose, data were collected using survey methods.

Research Questions and Hypotheses

The following research questions and their accompanying hypotheses provided the framework for data collection and analysis.

1) Do higher education leadership competencies, as developed by McDaniel (2002), factor into four groups of context, content, process, and communication that mirror McDaniel’s schema?
1a) Null Hypothesis: Results of this research factor into McDaniel's (2002) categories of context, content, process, and communication.

Assuming McDaniel’s model proved valid, the following research questions and hypotheses were to be tested:

2) Is there a difference of perception of importance of specific higher education leadership competencies between athletics directors, senior student affairs officers, and chief academic officers?

2a) Null Hypothesis: There is no significant difference of the perception of importance within Context Leadership Competencies between athletics directors, senior student affairs officers, and chief academic officers.

2b) Null Hypothesis: There is no significant difference of the perception of importance within Content Leadership Competencies between athletics directors, senior student affairs officers, and chief academic officers.

2c) Null Hypothesis: There is no significant difference of the perception of importance within Process Leadership Competencies between athletics directors, senior student affairs officers, and chief academic officers.

2d) Null Hypothesis: There is no significant difference of the perception of importance within Communication Leadership Competencies between athletics directors, senior student affairs officers, and chief academic officers.

After analyzing the data, hypotheses for question 2 were rewritten post hoc to reflect new categories that emerged based on data reduction statistical techniques. The new hypotheses for research question 2 are presented in Chapter 7.
3) Is there a difference of perception of importance of specific higher education leadership competencies by each group (athletics directors, senior student affairs officers, and chief academic officers)?:

3a) Null Hypothesis: For the population of athletics directors, there is no significant difference between their perceptions of importance of higher education leadership competencies.

3b) Null Hypothesis: For the population of senior student affairs officers, there is no significant difference between their perceptions of importance of higher education leadership competencies.

3c) Null Hypothesis: For the population of chief academic officers, there is no significant difference between their perceptions of importance of higher education leadership competencies.

Population and Sample

Due to time and resource constraints, it was not practical to survey the entire population of higher education leaders under study. Because of the widespread variability and complex nature of higher education institutions, it was necessary to identify a sample frame of comparable institutions with similar attributes in order to make confident generalizations from the analyses. According to Babbie (2004), "a sampling frame is the list or quasi list of elements from which a probability sample is selected" (p. 199). Therefore, a sample frame of NCAA Division I higher education leaders was identified and used for this research (as detailed in the next section).
Initially, a minimum of 10 subjects per scale item was desired for the total sample size to strengthen validity. However, because of the high-level nature of the positions used for this research, and the limited number of individuals that made up the sample frame, five subjects per scale item was considered acceptable as an alternative (Bentler & Chou, 2987; Dillman, 2000; Shutz, 1999). Given this parameter, a minimum of 295 subject responses was needed (based on 59 competency statements and five subjects per item).

Sample Criteria

Five proposed criteria were considered for identifying the sample frame. These criteria included various combinations of institutions in relation to academic and athletic classification. The following table outlines the five proposed criteria initially considered for this research (based on a desired 60% response rate).

Table 5. Proposed Criteria for Sample Frame

<table>
<thead>
<tr>
<th>Proposed Criteria #</th>
<th>Athletic Division</th>
<th>Carnegie Classification</th>
<th>Estimated # of Institutions</th>
<th>Estimated # of Subjects</th>
<th>Estimated # of Responses*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Criteria Number 1</td>
<td>1</td>
<td>Doc-Granting</td>
<td>187</td>
<td>561</td>
<td>337</td>
</tr>
<tr>
<td>Proposed Criteria Number 2</td>
<td>I or II</td>
<td>Doc-Granting</td>
<td>213</td>
<td>639</td>
<td>383</td>
</tr>
<tr>
<td>Proposed Criteria Number 3</td>
<td>I</td>
<td>Doc-Granting or Master's Large</td>
<td>272</td>
<td>816</td>
<td>489</td>
</tr>
<tr>
<td>Proposed Criteria Number 4</td>
<td>I</td>
<td>Any</td>
<td>327</td>
<td>981</td>
<td>589</td>
</tr>
<tr>
<td>Proposed Criteria Number 5</td>
<td>I or II</td>
<td>Doc-Granting or Master's Large</td>
<td>389</td>
<td>1167</td>
<td>700</td>
</tr>
</tbody>
</table>

*based on a 60% response rate
Although a 60% response rate was somewhat ambitious, a pilot study conducted for this research (as discussed later) resulted in a 59% response rate, suggesting that this might be attainable. In addition, other tactics were considered for increasing response rate, as discussed later.

A decision was made to classify the sample frame based on level of NCAA competition. There were many reasons that drove this decision. Significant variance exists between the levels of both NCAA and Carnegie institutions. For example, NCAA “[d]ivision classification is based on several criteria, including, but not limited to, the size of the financial base, the number and types of sports offered, the focus of the program, and the existence of athletic grants-in-aid” (Abney & Parks, 1998, p. 120). Division I institutions generate significant revenue, compete in football and/or men’s basketball, offer full scholarships, and are typically engaged in highly public competition (Abney & Parks, 1998; Barr, 1998). Furthermore, Division I institutions strive for regional and national prominence; in contrast, Division II schools strive for regional recognition (Abney & Parks, 1998) and Division III institutions focus more on participation (Barr, 1998).

Similarly, the Carnegie classification system is based on multiple variables including, enrollment size, type of degrees offered, institutional setting, amount of research funding generated, and number of Ph.D.’s awarded (Carnegie Foundation for the Advancement of Teaching). Doctorate-granting Universities (RU/VH, RU/H, and DRU) must graduate at least 20 doctorate students a year, while Master’s Colleges and Universities, Large (Master’s/L) must graduate a minimum of 200 master’s students, but less than 20 doctorate students, each year (Carnegie Foundation for the Advancement of
Teaching). The obvious difference between the NCAA and Carnegie classification systems is the NCAA system is based on intercollegiate athletics attributes and the Carnegie system is based on academic attributes. However, 94% of NCAA Division I institutions are classified as Carnegie Master's or Doctorate Granting institutions, with over 50% classified as Doctoral institutions, resulting in a fairly homogenous group both athletically and academically.

Within both classification systems exist a wide variety of organizational structures. Some athletics directors of NCAA division II and III institutions report to deans and/or vice presidents (Abney & Parks, 1998). Likewise, senior student affairs officers and some chief academic officers at varying levels of the Carnegie classification system often report to individuals other than the university CEO (it is more common for the senior student affairs officer to report to someone other than the president than it is for the chief academic officer). In an effort to ensure participants were employed at homogenous types of institutions across each type of leader, NCAA Division I institutions were selected.

Institutions selected with the above criteria, while small in number, are often viewed as the most influential and important institutions in the country (Rosenzweig, 2001). In references to research universities, Rosenzweig (2001) commented:

Not only do these universities conduct most of the nation’s basic research; they also educate the vast majority of future college teachers and research scientists of all types as well as leaders of the learned professions. They are the most visible of all educational institutions, and, for better or for worse, they are the models that many others in this country and abroad strive to emulate. (p. xiv)
Therefore, given that both Master’s and Doctorate level institutions engage in significant research, it is logical to conclude that NCAA Division I institutions are among the most nationally competitive institutions both academically and athletically.

After careful consideration and consultation with subject matter experts (consisting of the researcher’s committee), criterion number four was used for the sample frame of this research. Although a 60% response rate was desired, a 30% response rate was the minimum necessary to achieve five responses per scale item.

In summary, selecting senior leaders at NCAA Division I institutions provided a sample frame from comparable, highly visible institutions. At the time of this research, there were 327 institutions that meet the criteria of participating in NCAA Division I athletics. Because of the small number of institutions and to ensure the sample was representative of the population, all members of the sample frame were surveyed (i.e., a census).

Instrument

Prior to this research, no survey existed measuring the perceived importance of higher education leadership competencies. Therefore, the Higher Education Leadership Competencies (HELC) Survey (Appendix I) was developed based on a thorough review of literature, pilot study, and feedback from subject matter experts. The self-report HELC Survey is comprised of three sections: personal information, professional information, and the HELC inventory.

Part I, personal information, asks questions related to demographics, such as age, gender, ethnicity, and so forth. Part II, professional information, asks questions related to
educational and professional experience. Questions and responses in parts I and II were developed from previous higher education leadership inventories and surveys (Corrigan, 2002; Fisher, Tack, & Wheeler, 1988; Fisher & Koch, 2004; Selingo, 2005; Wolverton & Gmelch, 2002).

Part III, the HELC inventory, presents statements and questions specific to higher education leadership competencies. Fifty-nine core higher education leadership competencies used for this research were developed and identified from pre-existing research (McDaniel, 2002) and supported through existing literature (Chapter 3, Nomological Network). In addition, two open-ended questions were included at the end of the HELC inventory for future inquiry. The first question asked: “Based on your current position as a higher education administrator, what do you believe are the three most important competencies necessary for effective higher education leadership (answers do not need to be taken from previous list)?” The second question asked: “Based on your current position as a higher education administrator, what do you believe are the three greatest challenges facing higher education leaders over the next 5 years?” Because responses to these questions were not the main emphasis of this study, preliminary analysis of the responses (in terms of frequency) can be found in Appendix II.

The HELC inventory was formatted using a Likert-type scale. A Likert scale “is one of the most commonly used formats in contemporary questionnaire design” (Babbie, 2004, p. 170), and is a practical method for creating response categories for measuring the relative intensity of different items (Babbie, 2004). Higher education leadership competencies were listed as a series of statements, and participants were asked to rate the
importance of each statement on a scale of one (1) to five (5): 1 = not important; 5 = very important. A five-point scale anchored at either end (rather than every point on the scale) was used in an effort to simplify the presentation of questions and to allow for enhanced reading comprehension (Dillman, 2000, p. 45).

As noted, the majority of HELC Survey questions and statements are closed-ended in nature. Using closed-ended questions is preferred for survey research as they are more reliable, offer greater uniformity of responses, are more easily analyzed, and increase response rate (Babbie, 2004; Fowler, 2002). In addition, survey questions and responses were created with careful attention to the following principles (Dillman, 2000, p. 51-78):

1. Choose simple over specialized words
2. Choose as few words as possible to pose the question
3. Use complete sentences to ask questions
4. Avoid vague quantifiers when more precise estimates can be obtained
5. Avoid specificity that exceeds the respondent’s potential for having an accurate, ready-made answer
6. Use equal numbers of positive and negative categories for scalar questions
7. Distinguish undecided from neutral by placement at the end of the scale.
8. Avoid bias from unequal comparisons
9. State both sides of attitude scales in the question stems
10. Eliminate check-all-that-apply question formats to reduce primacy effects.
11. Develop response categories that are mutually exclusive
12. Use cognitive design techniques to improve recall
13. Provide appropriate time referents

14. Be sure each question is technically accurate

15. Choose question wordings that allow essential comparisons to be made with previously collected data

16. Avoid asking respondents to say yes in order to mean no

17. Avoid double-barreled questions

18. Soften the impact of potentially objectionable questions

19. Avoid asking respondents to make unnecessary calculations

These principles provided the underlying framework for constructing the HELC Survey questions and responses. In addition to content, care was taken to ensure the survey’s format offered visual distinction to provide a “common stimulus for all respondents” and to enhance response rate (Dillman, 2000, p. 96; Fowler, 2002).

**Instrument Validity and Reliability**

Survey validity refers to the extent to which survey questions measure what they intend to measure (Aldridge & Levine, 2001; Babbie, 2004). For example, the indicators listed under the HELC inventory (Part III of the survey) should provide the theoretical underpinnings that relate to and define competence for higher education leadership. To strengthen the Higher Education Leadership Competencies (HELC) Survey, multiple dimensions of validity were considered.

Content validity refers to “how much a measure covers the range of meanings included within a concept” (Babbie, 2004, p. 145). One way to measure a survey’s content validity is to have a panel of experts review the measures, statements, or questions (Aldridge & Levine, 2001). McDaniel’s (2002) framework provided the first
phase of addressing content validity for the current research. As her article details, a
panel of American Council of Education (ACE) Fellows developed a list of necessary
competencies of senior leadership in higher education. "The characteristics and
behaviors they articulated were edited and organized into a comprehensive set of
leadership competencies of effective senior leaders in higher education" (McDaniel,
2002, p. 83). Next, a group of roughly one hundred college and university presidents,
vice presidents, former ACE fellows, and other senior leaders of higher education
institutions reviewed the original list and provided feedback. Finally, "the set of
competencies in near-to-final form was shared with the American Council of Education
Leadership commission, an advisory commission to ACE, composed of college and
university presidents" (McDaniel, 2002, p. 83). Feedback was considered at each step of
the validation process and incorporated into the final list of higher education leadership
competencies.

McDaniel's (2002) exploratory work provided a rigorous method for validating
the range of meanings included within the four categories of higher education leadership
competencies: context, content, process, and communication. For the current research, a
panel of experts made up of members of the researcher's committee, a survey design
professor, higher education researchers, and higher education leaders reviewed the HELC
Survey and provided feedback. Questions and/or statements were revised accordingly.

In addition to content validity, construct validity was considered. Construct
validity "is based on the logical relationships among variables" (Babbie, 2004). As
presented in Chapter 3, a nomological network (net) was created based on McDaniel's
research and a thorough review of the literature to strengthen construct validity and to
point to sources where logical theoretical relationships exist among the higher education leadership competency indicators (content, context, process, and communication). As a result of the development of the nomological net, sub-categories emerged (see Chapter 3). Construct validity was examined further by analyzing responses to the HELC inventory through factor analysis and comparing the results to proposed hypothesis 1a through structural equation modeling (SEM). This process is presented in more detail in Chapter 5.

Often referred to as predictive validity, criterion-related validity refers to "[t]he degree to which a measure relates to some external criterion" (Babbie, 2004, p. 144). For example, measuring the competence of higher education leaders can be achieved by measuring successful higher education outcomes. The purpose of the current study is to actually identify the competencies necessary or important for effective leadership. Therefore, criterion-related validity was not applicable to the HELC Survey instrument. Criterion-related validity may be applicable to research extending the results of the current study, with the intent to create a test used to measure general leadership competence of current or future higher education leaders.

Strengthening validity, from an empirical perspective, is often difficult in survey research. Strengthening reliability, however, is not. Reliability refers to the repeatability or consistency of a given measure or variable over time (Aldridge & Levine, 2001; Babbie, 2004). Survey research is generally high in reliability due to the standardized nature of the measurement. “By presenting all subjects with a standardized stimulus, survey research goes a long way toward eliminating unreliability in observations made by the researcher” (Babbie, 2004). In addition, presenting appropriate, carefully worded
questions can increase the reliability of subject responses (Fowler, 2002). Cronbach’s alpha is a statistical coefficient that can be used to indicate the level of internal consistency and is presented in the next chapter.

Pilot Study

Following Dillman’s four-stage approach to pretesting survey questionnaires (2000, p. 140-147) and based on the aforementioned considerations related to validity and reliability, the HELC Survey instrument was tested in a pilot study prior to generating the final version. A convenience sample of 29 individuals was identified and selected from the University of Nevada, Las Vegas (UNLV). UNLV meets the criteria required for the sample frame of the actual research. In addition to the athletics director, chief student affairs officer, and chief academic officer, individuals employed in leadership positions one level below these individuals were included in the pilot. This convenience sample of participants was selected to generate a sufficient amount of feedback in an effort to strengthen the survey’s validity.

The pilot survey (Appendix III) was a paper-version administered through intercampus mail and sent to the participants’ business address as listed in the UNLV Faculty and Staff Directory (version 2004-2005). Enclosed with the survey was a comments and feedback questionnaire (Appendix III), and a cover letter asking for participation, explaining the purpose of the research, and ensuring confidentiality (Appendix IV). In addition, a self-addressed stamped envelope was included to help increase response rate. Seventeen pilot surveys were returned for an overall response rate of 59%. Fifteen of the surveys were returned within a 3-week period, indicating a robust
and healthy response considering the nature of the population. As a consequence, no follow-up reminders were administered. Two additional surveys were returned within a 4-month period. Included in the responses were one athletics director, two former athletics directors, a vice president of student life, and a chief academic officer. Therefore, all leadership positions were represented in the pilot analysis. The remaining sample consisted of individuals who report to those leadership positions (e.g., associate/assistant athletics directors, associate/assistant vice presidents of student life, vice provosts, and deans).

The qualitative data collected from the pilot study provided significant feedback to help validate, refine, and enhance the Higher Education Leadership Competencies (HELC) Survey. The comments and feedback questionnaire was useful in strengthening the validity of the instrument. For example, in an attempt to measure face validity, participants were asked if the survey was logical. Out of sixteen participants who answered this question, 94% (N = 15) answered “yes,” indicating a high degree of face validity. Furthermore, content validity was measured by asking participants if they believed Part III (the HELC inventory) asked relevant questions related to competencies for effective higher education leadership. Out of fifteen participants who answered this question, 100% (N = 15) answered “yes,” indicating a high degree of content validity. Participants were also asked if questions and answer-selections were confusing, if they would change anything about the survey instrument (format, instructions, wording, length, etc.), and if they would change anything about the survey content (personal information, professional information, and competencies). Feedback from the pilot study was recorded and the survey was revised accordingly.
The comments and feedback questionnaire also asked participants about length of time (in minutes) and best-preferred method for survey completion (hard copy, electronic copy, or no preference). Ten out of sixteen total respondents took either 5-10 minutes (N = 4) or 10-15 minutes (N = 6) to complete the survey. Therefore, 67% of respondents took 15 minutes or less to complete the pilot survey. Five respondents took 15-20 minutes and one respondent took 20 minutes or longer. In total, 94% (N=15) of respondents took 20 minutes or less to complete the survey.

With regard to preferred method of completion, ten out of seventeen (59%) total respondents indicated they would rather complete the survey electronically through email and/or a web page; two (12%) preferred hard copy through U.S. mail; and five (29%) had no preference. Therefore, fifteen out of seventeen (88%) total respondents either had no preference (N = 4) or would prefer to complete the survey electronically (N = 10). Interestingly, only one athletics leader preferred electronic methods, while the majority of student affairs leaders preferred to complete the survey electronically (N = 3) as well as the majority of academic affairs leaders (N = 3). The lack of interest among athletics leaders to complete the survey through electronic methods is consistent with the pilot survey’s HELC inventory results that indicated athletics leaders placed less importance on the competency of understanding issues in technology compared to the other groups. Although this measure is not statistically valid, a reasonable conclusion can be made that individuals who believe technology is an important competency would also prefer to complete the survey through electronic methods. Regardless, understanding how participants prefer to complete the survey helped to maintain an adequate response rate for the actual research.
Finally, in addition to feedback obtained from the comments and feedback questionnaire, some participants added notations in the margins of the pilot survey. Most of the comments were related to format, clarification of statements, and suggestions for administration of the survey (such as using online methods). Notated comments were considered and revisions to the survey were made accordingly.

Data Collection

In an effort to minimize time and resource expenditure and maximize response rate, the final version of the HELC Survey was administered through an online survey application known as *Survey Monkey*. Coincidentally, one respondent from the pilot test suggested using *Survey Monkey* for data collection. The researcher subscribed to *Survey Monkey*’s professional subscription, which provided access to all advanced features, including the capacity to create unlimited questions, access to multiple formatting options, and the ability to download responses into Excel and SPSS statistical software for further analysis. Moreover, the professional subscription allowed for up to 1,000 responses per month, which was more than sufficient for this research.

All questions from the original survey were entered into *Survey Monkey* and revised according to the feedback from the pilot study. Items listed in Part III, the HELC Inventory, were inputted in random order. Each HELC Inventory item was assigned a number (1-59) based on the categorical order as listed in McDaniel’s study. The Numbers one through fifty-nine were written on small pieces of paper, folded, and placed in a hat. Numbers were drawn at random and recorded until all were selected. The
HELC Inventory items were placed in order of selection in the final version of the online survey.

Pretest

Prior to administering the HELC Survey to the sample frame of participants selected for this study, a pretest was conducted. The purpose of the pretest was to allow the researcher to become familiar with administering the survey and exporting data using the Survey Monkey website. In addition, the pretest provided the researcher an opportunity to evaluate the process of filling out and submitting the survey from users’ perspectives and identify any issues, problems, or concerns with the survey that may have been overlooked.

Babbie postulates (2004), “It’s not usually essential that the pretest subjects comprise a representative sample, although you should use people for whom the questionnaire is at least relevant” (p. 256). Therefore, the online pretest of the HELC Survey was administered to a diverse group of individuals (N = 12) that consisted of seven subject matter experts (including the researcher’s committee), two associate deans of a dental school, and three individuals who work outside of a traditional academic environment with no experience in higher education leadership. The purpose of selecting three individuals with little expertise in higher education was to obtain an outside perspective regarding the survey format, user-friendliness, and any other aspect about the survey that individuals with expert knowledge on the subject might overlook. All participants were asked to complete the survey and provide feedback regarding questions, responses, format, and any other portion of the survey that elicited concern. All 12 subjects responded to the survey and provided minimal feedback. The majority of
feedback centered on spelling errors, length of time to complete survey, and ease of use regarding the online version. Feedback was recorded and revisions were made to the survey where necessary. Finally, the researcher tested the process of exporting the Survey Monkey data into an Excel spreadsheet and further into SPSS.

Survey Administration

Email addresses for the sample frame were manually collected from college and university web pages during the month of June, 2006. Most web pages contained an online employment directory that was helpful in obtaining accurate email accounts. However, in cases when an online directory was not available, the departmental home page (intercollegiate athletics, student affairs, and academic affairs) was referenced. Furthermore, various institutions were contacted by phone in situations where email accounts were not listed in the online directory or on the departmental home page. In total, 971 email addresses were obtained. Email addresses consisted of 327 athletics directors, 322 senior student affairs officers, and 322 chief academic officers. It was estimated that there were a total of 984 available participants in the sample frame for this study. This figure was determined by assuming each NCAA Division I institution employed an athletics director, seniors student affairs officer, and chief academic officer (328 NCAA Division I Institutions multiplied by 3 participants at each institution = 984 available participants in the sample frame). Therefore, nearly 99% of the email addresses for the sample frame were obtained for this research.

Using Survey Monkey's list management feature, all subjects were e-mailed a letter requesting their participation (Appendix V). This letter, located in the body of the email, detailed the purpose of the research, estimated time to complete the survey, and
ensured confidentiality. In addition, participants were given the option to request a hard copy of the survey by replying with their address to an email account set up for this research (helcsurvey@hotmail.com). *Survey Monkey* allows the researcher to use a pre-selected email account to generate the appearance of where the email message comes from. The email contained a link to the HELC Survey located on *Survey Monkey*’s web page. Subjects were asked to click on the link. After clicking on the link, the HELC Survey appeared in their web browser.

The first page of the survey consisted of an informed consent statement (Appendix VI). In order to participate in the survey, participants were required to select the “I consent” button located at the bottom of the statement. In addition, participants were asked to complete the survey based on clear and concise instructions located on page two of the survey (Appendix VII). There were also brief instructions at the beginning of each section (Parts I, II, and III). Upon selecting the “submit” button at the conclusion of the survey, respondents were thanked for their participation and redirected to UNLV’s home page website.

The survey was administered over a period of approximately 8 weeks. The initial mailing and all follow-up reminder mailings included a link to the survey in the body of the email letter. Using *Survey Monkey*’s “One Response Per Respondent” collection option, the process was designed to ensure respondents were not able to complete the survey twice. Furthermore, as part of the subscription, *Survey Monkey* compiles data as they are received and securely stores the information.
Response

The first mailing of the survey was sent in August 2006 to all 971 email accounts resulting in 133 responses. Some messages were returned as “undeliverable” and were set aside and stored in a separate folder. Two weeks after the initial mailing, a follow-up reminder email was sent to all non-respondents, resulting in an additional 107 survey responses. After the first two mailings, “undeliverable” email messages were reviewed and analyzed. Approximately 44 email messages were returned after the first two mailings, mainly due to inaccurate email accounts. All accounts that returned a message as “undeliverable” were rechecked through college and university websites. This process resulted in finding 24 new and revised email addresses that were resent the survey, resulting in 5 additional responses. Four weeks after the initial mailing, a second follow-up reminder was sent to all non-respondents, resulting in an additional 68 responses. Finally, six weeks after the initial mailing, a third follow-up reminder was sent, resulting in an additional 40 responses. Table 6 summarizes the response rate for this process.

Table 6. Response Rate

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Number of Responses</th>
<th>Cumulative Responses</th>
<th>Cumulative Response Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/20/2006</td>
<td>Initial Mailing</td>
<td>133</td>
<td>133</td>
<td>13.7</td>
</tr>
<tr>
<td>9/3/2006</td>
<td>2-week Follow-up Reminder</td>
<td>107</td>
<td>240</td>
<td>24.72</td>
</tr>
<tr>
<td>9/10/2006</td>
<td>Revised Emails Follow-up</td>
<td>5</td>
<td>245</td>
<td>25.23</td>
</tr>
<tr>
<td>9/17/2006</td>
<td>4-week Follow-up Reminder</td>
<td>65</td>
<td>310</td>
<td>31.93</td>
</tr>
<tr>
<td>10/1/2006</td>
<td>6-week Follow-up Reminder</td>
<td>40</td>
<td>350</td>
<td>36.04</td>
</tr>
</tbody>
</table>
A total of 350 responses were received for a response rate of 36.04%. Out of a total of 350 responses, 47 participants skipped all or a large portion of the HELC Inventory (Part III). In addition, 8 participants identified themselves as serving in positions other than athletics director, senior student affairs officer, and chief academic officer and were not included in the analysis. Therefore, a total of 295 surveys were used for analysis. This was below the initial number of desired responses, based on 10 subjects per scale item. However, the study’s responses provided an acceptable subject to variable ratio of 5:1 (Bentler & Chou, 1987; Dillman, 2000; Shutz, 1999), exceeding the minimum requirements for conducting principal component analysis (PCA) as discussed in the next chapter.

Analysis

The data obtained from the administration of the HELC Survey provided for multiple analysis opportunities. Most analyses were carried out using SPSS and AMOS statistical software packages. Descriptive statistics were generated, including means, standard deviations, frequencies, and percentages to describe the sample population (Part I and II of the HELC survey) and for reporting portions of the HELC Inventory (Part III). Confirmatory factor analysis using structural equation modeling was carried out to test the goodness of fit of McDaniel’s (2002) existing theory and a new model extracted using principal component analysis. Principal component analysis (PCA) was used to reduce the HELC Inventory data into separate interpretable categories while extracting maximum variance. Upon identifying new factor components, labels were created and
assigned based on theoretical relationships of the variables. Cronbach’s alpha was calculated to report the internal reliability of the HELC Inventory (Part III).

Next, multivariate analyses of variance (MANOVA) followed by appropriate Analyses of Variance (ANOVA) and post-hoc Tukey’s procedure were conducted to determine significant differences between and within group responses.

Summary

The preceding chapter outlined the methodology of the current research, including population and sample selection, instrument development and pilot study, data collection, and a summary of analyses conducted. Careful steps were implemented to ensure the development of a valid and reliable survey instrument. The following chapters will present the results of the data collection, an in-depth discussion, and conclusions.
CHAPTER 5

RESULTS AND ANALYSIS: RESEARCH QUESTION 1

Introduction

This chapter presents the results of the data in relation to research question 1 and hypothesis 1a. The next chapter, Chapter 6, provides a discussion of these results. For this chapter, data analyses include:

- Profile of Sample Population
- Confirmatory Analysis: McDaniel’s Model
- Exploratory Analysis: A New Model
- Reliability Analysis

Profile of Sample Population

The sample frame for this study included athletics directors, senior student affairs officers, and chief academic officers employed at institutions participating in NCAA Division I athletics. Out of 971 participants selected for this study (based on available email addresses on institutional websites and through phone calls), 350 email responses were received for an overall response rate of 36.04%. Approximately six individuals requested paper versions of the survey. Due to time constraints, paper versions of the survey were only mailed to the first three individuals who requested this format. Out of three mailed, two paper versions of the survey were returned. However, the two paper
versions returned arrived after the online *Survey Monkey* version of the HELC Survey had been closed and data analysis begun. Therefore, both paper versions received were not included in the data analysis. Forty-seven responses were eliminated from analysis due to participant failure to complete Part III (HELC Inventory) of the survey. An additional eight participants were eliminated who identified themselves as individuals employed in positions that did not fall within the sample frame for the study. Some of these individuals identified themselves as university president, administrative assistant, and/or associate vice president, among others. In total, there were 295 usable surveys for analysis, resulting in a 30% usable-survey response rate.

Personal and professional information is summarized in Tables 7 and 8. Table 7 represents a summary of the usable sample combined. Table 8 represents a summary of each group (athletics directors, senior student affairs officers, and chief academic officers). Participants were not forced to answer all questions of the survey. Therefore, demographic responses varied from question to question, as illustrated by the N value in the table.
Table 7. Summary Profile of Sample Frame

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Sample</th>
<th>Mean</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>N=295</td>
<td>100.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (years)</td>
<td>N=292</td>
<td>54.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>N=293</td>
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<td></td>
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</tr>
<tr>
<td>Male</td>
<td>228</td>
<td>77.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>65</td>
<td>22.2%</td>
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</tr>
<tr>
<td>Race/Ethnicity</td>
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<tr>
<td>Caucasian</td>
<td>249</td>
<td>85.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black/African-American</td>
<td>27</td>
<td>9.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afro-Caribbean</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>11</td>
<td>3.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>3</td>
<td>1.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiracial</td>
<td>2</td>
<td>0.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0.3%</td>
<td></td>
<td></td>
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<tr>
<td>Total Children</td>
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<td>Children = 0</td>
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<td>50</td>
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<td>Children = 2</td>
<td>120</td>
<td>41.2%</td>
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<td></td>
</tr>
<tr>
<td>Children = 3</td>
<td>50</td>
<td>17.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children = 4</td>
<td>20</td>
<td>6.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children = 5+</td>
<td>7</td>
<td>2.4%</td>
<td></td>
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</tr>
<tr>
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<td>Married/Life Partner</td>
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<td>87.6%</td>
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</tr>
<tr>
<td>Never Married</td>
<td>14</td>
<td>4.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divorced</td>
<td>17</td>
<td>5.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>5</td>
<td>1.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spouse/Life Partner</td>
<td>N=261</td>
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<tr>
<td>Full Time</td>
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<td></td>
</tr>
<tr>
<td>Part Time</td>
<td>39</td>
<td>14.9%</td>
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<td>Not Employed</td>
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<td>32.6%</td>
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<tr>
<td>Type of Institution</td>
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<tr>
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<td>64.7%</td>
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<tr>
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<td>98</td>
<td>33.2%</td>
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<td>Current Supervisor</td>
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<tr>
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<td>76.3%</td>
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<tr>
<td>Chief Academic Officer</td>
<td>33</td>
<td>11.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vice Pres./Vice Chanc.</td>
<td>30</td>
<td>10.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vice Provost</td>
<td>1</td>
<td>0.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dean</td>
<td>1</td>
<td>0.3%</td>
<td></td>
<td></td>
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<td>Other</td>
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<td>1.7%</td>
<td></td>
<td></td>
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<tr>
<td>Characteristic</td>
<td>Mean</td>
<td>Response</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------</td>
<td>----------</td>
<td>----</td>
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</tr>
<tr>
<td>Serve on CEO's Cabinet</td>
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<td></td>
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<td></td>
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<td>6.8%</td>
<td></td>
</tr>
<tr>
<td>Institutions = 3</td>
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<td>7</td>
<td>2.4%</td>
<td></td>
</tr>
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<td>Institutions &gt; 3</td>
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<td></td>
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<tr>
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<td>6.8%</td>
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<td>Master's</td>
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<td>82</td>
<td>27.8%</td>
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<tr>
<td>Doctorate</td>
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<td>181</td>
<td>61.4%</td>
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<td>11</td>
<td>3.7%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
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<td>1</td>
<td>0.3%</td>
<td></td>
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</table>
Table 8. Summary Profile of Each Group: Athletics Directors, Senior Student Affairs Officers, and Chief Academic Officers

<table>
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<th>SSAOs</th>
<th>CAOs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Response</td>
<td>Mean Response</td>
<td>Mean Response</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
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<td>n=95</td>
<td>n=123</td>
<td>n=77</td>
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<tr>
<td></td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Age (years)</td>
<td>51.31</td>
<td>54.19</td>
<td>57.89</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Male</td>
<td>84</td>
<td>85</td>
<td>59</td>
</tr>
<tr>
<td>Female</td>
<td>10</td>
<td>38</td>
<td>17</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>n=95</td>
<td>n=122</td>
<td>n=76</td>
</tr>
<tr>
<td>Black/African-American/</td>
<td>85</td>
<td>94</td>
<td>70</td>
</tr>
<tr>
<td>Afro-Caribbean</td>
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<td>20</td>
<td>1</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Asian</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Multiracial</td>
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<td>0</td>
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<tr>
<td>Other</td>
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<td>24</td>
<td>13</td>
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<td>Children = 2</td>
<td>40</td>
<td>45</td>
<td>35</td>
</tr>
<tr>
<td>Children = 3</td>
<td>17</td>
<td>21</td>
<td>12</td>
</tr>
<tr>
<td>Children = 4</td>
<td>9</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Children = 5+</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Marital Status</td>
<td>n=94</td>
<td>n=121</td>
<td>n=75</td>
</tr>
<tr>
<td>Married/Life Partner</td>
<td>84</td>
<td>105</td>
<td>65</td>
</tr>
<tr>
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<td>6</td>
<td>7</td>
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<td>Divorced</td>
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<td>8</td>
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<td>Widowed</td>
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<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Spouse/Life Partner</td>
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<td>Employment Status</td>
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<td>7</td>
</tr>
<tr>
<td>Not Employed</td>
<td>38</td>
<td>22</td>
<td>25</td>
</tr>
<tr>
<td>Type of Institution</td>
<td>n=94</td>
<td>n=120</td>
<td>n=75</td>
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<td>48</td>
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<tr>
<td>Private</td>
<td>31</td>
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<tr>
<td>Current Supervisor</td>
<td>n=95</td>
<td>n=123</td>
<td>n=77</td>
</tr>
<tr>
<td>Chief Executive Officer</td>
<td>69</td>
<td>81</td>
<td>75</td>
</tr>
<tr>
<td>Chief Academic Officer</td>
<td>1</td>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td>Vice Pres./Vice Chanc.</td>
<td>25</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Vice Provost</td>
<td>0</td>
<td>1</td>
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<tr>
<td>Dean</td>
<td>0</td>
<td>1</td>
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<tr>
<td>Other</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
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<table>
<thead>
<tr>
<th>Characteristic</th>
<th>ADs</th>
<th>SSAOs</th>
<th>CAOs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Response</td>
<td>Mean</td>
</tr>
<tr>
<td>Serve on CEO's Cabinet</td>
<td></td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>49</td>
<td>51.6%</td>
<td>105</td>
</tr>
<tr>
<td>No</td>
<td>46</td>
<td>48.4%</td>
<td>18</td>
</tr>
<tr>
<td>Length in Current Position (years)</td>
<td>6.14</td>
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</tr>
<tr>
<td>Previous Institutions in Same Position</td>
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<td></td>
<td>n=123</td>
</tr>
<tr>
<td>Institutions = 0</td>
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<td>63.2%</td>
<td>88</td>
</tr>
<tr>
<td>Institutions = 1</td>
<td>17</td>
<td>17.9%</td>
<td>24</td>
</tr>
<tr>
<td>Institutions = 2</td>
<td>13</td>
<td>13.7%</td>
<td>4</td>
</tr>
<tr>
<td>Institutions = 3</td>
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<td>Institutions &gt; 3</td>
<td>3</td>
<td>3.2%</td>
<td>3</td>
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<tr>
<td>Highest Degree Held</td>
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<tr>
<td>Bachelor's</td>
<td>20</td>
<td>21.1%</td>
<td>0</td>
</tr>
<tr>
<td>Master's</td>
<td>57</td>
<td>60.0%</td>
<td>24</td>
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<tr>
<td>Doctorate</td>
<td>13</td>
<td>13.7%</td>
<td>93</td>
</tr>
<tr>
<td>Professional</td>
<td>4</td>
<td>4.2%</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1.1%</td>
<td>0</td>
</tr>
</tbody>
</table>
The average age (in years) of each group was 51.3 for athletics directors, 54.2 for senior student affairs officers, and 57.9 for chief academic officers. For the entire sample frame, 78% were male and 22% female. For each group, athletics directors reported 89.4% male and 10.6% female, senior student affairs officers reported 69.1% male and 30.0% female, and chief academic officers reported 77.6% male and 22.4% female. Most respondents were Caucasian, making up 85% of respondents. The most diverse position was the senior student affairs officer, with 77% Caucasian, 16.4% African-American, and 5.7% Hispanic. Eighty-eight percent of all participants were married.

For professional information, 64.7% of all participants were employed at a public institution, and only 33.2% were employed at a private one. The average length in their current position was 6.14 years for athletics directors, 7.72 years for senior student affairs officers, and 4.36 years for chief academic officers. Participants were also asked about reporting structure. Most participants stated they report directly to the institutions chief executive officer (72.6% for athletics directors, 65.9% for senior student affairs officers, and 97.4% for chief academic officers). In addition, 51.6% of athletics directors sit on the president’s cabinet, while 85.4% and 98.7% of senior student affairs officers and chief academic officers, respectively, do. Finally, 61.4% of all participants reported that their highest degree received was a doctorate, 27.8% reported that their highest degree was a master’s, and 6.8% only had a bachelor’s. However, for each group, only 13.7% of athletics directors had a doctorate, while 75.6% and 97.4% of senior student affairs officers and chief academic officers, respectively, had one. The entire sample frame (100%) of both senior student affairs officers and chief academic officers had at least a
master’s degree; however, 21% of athletics director reported having only a bachelor’s degree.

Confirmatory Analysis: McDaniel’s Model

Structural equation modeling (SEM) is a “confirmatory technique” used to test a priori models that are typically based on some pre-determined theory or idea (Ullman, 2001). Ullman (2001) states:

The first step in a SEM analysis is specification of a model, so this is a confirmatory rather than exploratory technique. The model is estimated, evaluated, and perhaps modified. The goal of the analysis might be to test a model, to test specific hypotheses about a model, to modify an existing model, or to test a set of related models. (p. 656)

Hypothesis 1a

For Hypothesis 1a, McDaniel’s (2002) four-dimensional theory of higher education leadership competencies was tested using SEM. Principal component analysis with varimax rotation was run using SPSS 14.0 to reduce the 59 variables of the HELC Inventory data into four theorized components based on McDaniel’s (2002) research. McDaniel’s four-dimensional model (context, content, process, and communication) was tested using goodness-of-fit indices. Data were analyzed and model parameters estimated using AMOS 6 (SPSS, Inc., 2005). The maximum likelihood solution was used to provide an approximate chi-square statistic to evaluate the model. Several fit indices were used to evaluate the model, including the incremental fit index (IFI), comparative fit index (CFI), and root mean square error of approximation (RMSEA). According to
Ullman (2001), the CFI and RMSEA fit indices are the most commonly reported values. For IFI, the higher the value (closer to 1.0) the better fit the model. For CFI, values above .95 describe good-fitting models. (Ullman, 2001). For RMSEA, model values of .06 or less indicate a good fit (Ullman, 2001). Based on the results of this research as compared to appropriate goodness of fit scores as outlined by Ullman (2001), McDaniel’s (2002) original four-factor model indicated a marginal fit, at best (IFI = .730, CFI = .726, RMSEA = .070). McDaniel’s model was labeled as marginal because all three indices used for assessment did not meet the requirements for a good fitting model (Ullman, 2001). Table 9 summarizes these results. Further discussion regarding these results related to McDaniel’s theory is provided in the next chapter.

Table 9. Goodness of Fit Results: McDaniel’s Model

<table>
<thead>
<tr>
<th>Goodness of Fit Measure</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incremental Fit Index (IFI)</td>
<td>0.730</td>
</tr>
<tr>
<td>Comparative Fit Index (CFI)</td>
<td>0.726</td>
</tr>
<tr>
<td>Root Mean Square Error of Approximation (RMSEA)</td>
<td>0.070</td>
</tr>
</tbody>
</table>

Because of the failure of the observations to conform to McDaniel’s proposed model, further analyses were conducted.

Exploratory Analysis: A New Model

Principal component analysis (PCA) with varimax rotation was run using SPSS 14.0 to reduce the 59 variables of the HELC Inventory data into components according to
rotated factor scores. According to Kachigan (1986), “[o]ne of the most important uses of factor analysis is in the identification of factors underlying a large set of variables” (p. 379). Kachigan (1986) continued, stating that “[t]he analyst must often use personal judgment as to what constitutes a meaningfully high loading, based on the distribution of loadings within a factor and across factors, as well as the absolute magnitudes of the loadings” (p. 393). Initially, factor loading scores of .4 or above were retained for further analysis. Common lower bound factor loadings are typically set between .3 and .5 (Kachigan, 1986), therefore .4 is considered acceptable. In addition, variables were eliminated that cross-loaded (loaded on more than one factor) at .4 or above. Multiple analyses were run, including 3-factor, 4-factor, 5-factor, and 6-factor solutions to determine appropriate dimensions based on factor loading scores and existing theory. Scree plots were also observed and considered for each factor solution. Some variables were eliminated based on cross-loading scores, but then reanalyzed and retained based on new, refined scores that emerged within new factor solutions. As the data reduction process continued, distinct grouping of variables emerged with factor scores falling at .5 and above. These variables were retained for the final model. There were no cross-loading variables at .5 or higher. However, there were four variables that cross-loaded at .4 or higher in the final model. These variables were retained because of the distinct relationship with other variables that fell within the same component. In total, over 250 possible factor solutions were examined.

As Tabachnick and Fidell (2001) state, “[a]lthough there are relevant statistical considerations to most of these steps, an important test of the analysis is its interpretability” (p. 283). The first component extracted using principal components
factor analysis usually accounts for the most variance explained (Kachigan, 1986). Each component extracted thereafter accounts for less and less of the variance (Kachigan, 1986). Based on extensive analysis of the data and existing theory, a 5-component model emerged as the most logical and meaningful solution for the current data. Component 1, labeled by the researcher as *Analytical Leadership Competencies*, explained 20.48% of the variance of the data. Component 2, labeled as *Communication Leadership Competencies*, explained 8.71% of the variance of the data. Component 3, labeled as *Student Affairs Leadership Competencies*, explained 8.31% of the variance of the data. Component 4, labeled as *Behavioral Leadership Competencies*, explained 7.89% of the variance of the data. Finally, Component 5, labeled as *External Relations Leadership Competencies*, explained 7.84% of the variance of the data. In total, 53.22% of the variance in the data was explained by the final 5-factor solution as described above. Table 10 summarizes the results of the 5-component solution.
Table 10. Factor Loading Scores of New 5-Component Model

<table>
<thead>
<tr>
<th>Competency</th>
<th>Analytical Leadership</th>
<th>Communic. Leadership</th>
<th>Student Aff. Leadership</th>
<th>Behavioral Leadership</th>
<th>External Rel. Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fosters the development and creativity of learning Organizations</td>
<td>.519</td>
<td>- .093</td>
<td>.176</td>
<td>.185</td>
<td>.125</td>
</tr>
<tr>
<td>Demonstrates understanding of academics</td>
<td>.556</td>
<td>.084</td>
<td>.097</td>
<td>.217</td>
<td>.036</td>
</tr>
<tr>
<td>Engages multiple perspectives in decision making</td>
<td>.622</td>
<td>.099</td>
<td>.176</td>
<td>.197</td>
<td>.055</td>
</tr>
<tr>
<td>Learns from self reflection</td>
<td>.602</td>
<td>.270</td>
<td>.179</td>
<td>.315</td>
<td>.015</td>
</tr>
<tr>
<td>Tolerates Ambiguity</td>
<td>.522</td>
<td>- .085</td>
<td>.219</td>
<td>.227</td>
<td>- .316</td>
</tr>
<tr>
<td>Sustains productive relationships with networks with colleagues</td>
<td>.521</td>
<td>.190</td>
<td>.154</td>
<td>.180</td>
<td>- .048</td>
</tr>
<tr>
<td>Applies analytical thinking to enhance communication in complex situations</td>
<td>.640</td>
<td>.166</td>
<td>.225</td>
<td>.165</td>
<td>.136</td>
</tr>
<tr>
<td>Facilitates the change process</td>
<td>.586</td>
<td>.342</td>
<td>.155</td>
<td>.146</td>
<td>.133</td>
</tr>
<tr>
<td>Demonstrates resourcefulness</td>
<td>.499</td>
<td>.321</td>
<td>.263</td>
<td>.233</td>
<td>.168</td>
</tr>
<tr>
<td>Demonstrates ability to diplomatically engage in controversial issues</td>
<td>.704</td>
<td>.127</td>
<td>.133</td>
<td>.115</td>
<td>- .002</td>
</tr>
<tr>
<td>Demonstrates negotiation skills</td>
<td>-.591</td>
<td>.185</td>
<td>.051</td>
<td>.174</td>
<td>.279</td>
</tr>
<tr>
<td>Seeks to understand human behavior in multiple contexts</td>
<td>.666</td>
<td>.114</td>
<td>.182</td>
<td>.183</td>
<td>.237</td>
</tr>
<tr>
<td>Accurately assesses the costs and benefits of risk-taking</td>
<td>.607</td>
<td>.350</td>
<td>.092</td>
<td>.060</td>
<td>.315</td>
</tr>
<tr>
<td>Facilitates effective communication among people with different perspectives</td>
<td>.614</td>
<td>.248</td>
<td>.405</td>
<td>.135</td>
<td>.085</td>
</tr>
<tr>
<td>Demonstrates understanding of complex issues related to higher education</td>
<td>.681</td>
<td>.156</td>
<td>.445</td>
<td>.022</td>
<td>.001</td>
</tr>
<tr>
<td>Responds appropriately to change</td>
<td>.586</td>
<td>.326</td>
<td>.216</td>
<td>.056</td>
<td>.072</td>
</tr>
<tr>
<td>Presents self well professionally as a leader</td>
<td>.068</td>
<td>.529</td>
<td>.323</td>
<td>.285</td>
<td>.094</td>
</tr>
<tr>
<td>Communicates vision effectively</td>
<td>.286</td>
<td>.630</td>
<td>-.021</td>
<td>.064</td>
<td>.052</td>
</tr>
<tr>
<td>Communicates effectively</td>
<td>.096</td>
<td>.693</td>
<td>.172</td>
<td>.063</td>
<td>.053</td>
</tr>
<tr>
<td>Expresses views articulately in multiple forms of communication</td>
<td>.246</td>
<td>.609</td>
<td>.032</td>
<td>.030</td>
<td>.159</td>
</tr>
<tr>
<td>Communicates effectively with multiple constituent groups in multiple contexts</td>
<td>.415</td>
<td>.492</td>
<td>.207</td>
<td>.171</td>
<td>.088</td>
</tr>
<tr>
<td>Responds to issues and needs of contemporary students</td>
<td>.290</td>
<td>.172</td>
<td>.590</td>
<td>.216</td>
<td>- .079</td>
</tr>
<tr>
<td>Attentive to emerging trends in higher education</td>
<td>.456</td>
<td>.128</td>
<td>.545</td>
<td>-.015</td>
<td>.130</td>
</tr>
<tr>
<td>Demonstrates understanding of student affairs</td>
<td>.305</td>
<td>.148</td>
<td>.740</td>
<td>.146</td>
<td>.054</td>
</tr>
<tr>
<td>Demonstrates understanding of legal issues</td>
<td>.281</td>
<td>.101</td>
<td>.692</td>
<td>.121</td>
<td>.185</td>
</tr>
<tr>
<td>Recognizes the value of a sense of humor</td>
<td>.312</td>
<td>.011</td>
<td>.093</td>
<td>.673</td>
<td>.236</td>
</tr>
<tr>
<td>Supports leadership of others</td>
<td>.309</td>
<td>.151</td>
<td>.120</td>
<td>.584</td>
<td>- .112</td>
</tr>
<tr>
<td>Demonstrates unselfish leadership</td>
<td>.026</td>
<td>.218</td>
<td>.097</td>
<td>.751</td>
<td>.060</td>
</tr>
<tr>
<td>Learns from others</td>
<td>.381</td>
<td>.224</td>
<td>.272</td>
<td>.505</td>
<td>.046</td>
</tr>
<tr>
<td>Does not take self too seriously</td>
<td>.285</td>
<td>-.028</td>
<td>.033</td>
<td>.631</td>
<td>.120</td>
</tr>
<tr>
<td>Relates well with governing boards</td>
<td>.263</td>
<td>-.053</td>
<td>.078</td>
<td>.091</td>
<td>.615</td>
</tr>
<tr>
<td>Applies skills to affect decisions in government contexts</td>
<td>.291</td>
<td>-.297</td>
<td>.322</td>
<td>.048</td>
<td>.551</td>
</tr>
<tr>
<td>Demonstrates understanding of advancement</td>
<td>.115</td>
<td>.149</td>
<td>-.118</td>
<td>.002</td>
<td>.741</td>
</tr>
<tr>
<td>Demonstrates understanding of athletics</td>
<td>-.229</td>
<td>.245</td>
<td>.087</td>
<td>.089</td>
<td>.735</td>
</tr>
<tr>
<td>Works effectively with the media</td>
<td>.132</td>
<td>.368</td>
<td>.180</td>
<td>.103</td>
<td>.586</td>
</tr>
</tbody>
</table>

Eigenvalue | 7.17  | 3.05  | 2.91  | 2.76  | 2.74  |
Percent of Variance Accounted For | 20.48 | 8.71  | 8.31  | 7.89  | 7.84  |
Cumulative Variance Accounted For | 53.22 |
Next, the 5-component model was tested for goodness-of-fit using structural equation modeling techniques. Data were analyzed and model parameters estimated using AMOS 6 (SPSS, Inc., 2005). The maximum likelihood solution was used to provide an approximate chi-square statistic to evaluate the model. Similar to the analysis for McDaniel’s (2002) theory, several fit indices were used to evaluate the 5-component model, including IFI, CFI, and RMSEA. Based on the results of this research, the 5-component model indicated a good fit, but not an excellent fit (IFI = .862, CFI = .860, RMSEA = .062). Results are summarized in Table 11 and compared to goodness-of-fit scores for McDaniel’s theory. As the data illustrate, the 5-component model proposed in this research indicates a significant improvement in fit when compared to McDaniel’s theorized model. A discussion regarding this outcome is presented in the following chapter.

Table 11. Goodness-Of-Fit Results: New 5-Component Model v. McDaniel’s Model

<table>
<thead>
<tr>
<th>Goodness of Fit Measure</th>
<th>McDaniel’s Model</th>
<th>New 5-Component Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incremental Fit Index (IFI)</td>
<td>0.730</td>
<td>0.862</td>
</tr>
<tr>
<td>Comparative Fit Index (CFI)</td>
<td>0.726</td>
<td>0.860</td>
</tr>
<tr>
<td>Root Mean Square Error of Approximation (RMSEA)</td>
<td>0.070</td>
<td>0.062</td>
</tr>
</tbody>
</table>

Reliability Analysis

Variables measured on a summated scale are only considered reliable when repeated measures are considered for the test instrument (Santos, 1999). However, in
cases when repeated administration of a test instrument is not feasible, as in the case of the current research, Cronbach’s Alpha provides an acceptable numerical coefficient of reliability commonly used in survey research. “Cronbach’s alpha is an index of reliability associated with the variation accounted for by the true score of the ‘underlying construct’” (Santos, 1999, p. 2). Coefficient ranges fall between zero and one and are more reliable as scores increase (Santos, 1999). Most reliability coefficients are considered acceptable at .7 or above (Aldridge & Levine, 2001; Nunnaly, 1978).

Cronbach’s alpha coefficient of reliability scores for components one through five of the new model were analyzed using SPSS statistical software (version 14.0). The analysis resulted in scores of .92 (Analytical Leadership Competencies), .75 (Communication Leadership Competencies), .77 (Student Affairs Leadership Competencies), .77 (Behavioral Leadership Competencies), and .72 (External Relations Leadership Competencies). Table 12 summarizes Cronbach’s alpha scores for the five components. All components reflected statistically reliable internal consistency, with scores falling above .7.

Table 12. Reliability Scores: Cronbach’s Alpha

<table>
<thead>
<tr>
<th>Component</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical Leadership Competencies</td>
<td>0.92</td>
</tr>
<tr>
<td>Communication Leadership Competencies</td>
<td>0.75</td>
</tr>
<tr>
<td>Student Affairs Leadership Competencies</td>
<td>0.77</td>
</tr>
<tr>
<td>Behavioral Leadership Competencies</td>
<td>0.77</td>
</tr>
<tr>
<td>External Relations Leadership Competencies</td>
<td>0.72</td>
</tr>
</tbody>
</table>

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CHAPTER 6

DISCUSSION: MCDANIEL'S MODEL VS. THE HELC MODEL

Introduction

This study’s first research question asked: “Do higher education leadership competencies, as developed by McDaniel (2002), factor identically into four groups of context, content, process, and communication that mirror McDaniel’s schema?” The null hypothesis for research question 1 states: “Upon analysis, results of this research factor into McDaniel’s (2002) categories of context, content, process, and communication.”

At the time of publication (2002), McDaniel’s article outlined a “new model of leadership” within the higher education industry. This model was to be used for self-assessment and individual learning plans for participants in the ACE Fellows program. This program offers Fellows the opportunity to gain career coaching, mentoring, and higher education leadership training and development.

The research summarized by McDaniel was the result of an interest by the ACE Fellows Program to generate a “comprehensive model of effective leadership” to guide program curriculum decisions and desired leadership development outcomes. McDaniel’s competencies described “effective senior leaders in positions throughout higher education as exercising their leadership in a variety of settings, institutions, and styles” (p. 83). A “[c]onsensus of higher education leaders was used to create and then to validate the set of competencies” (McDaniel, 2005). As defined in the article, higher
education leaders consisted of “university presidents and vice presidents, former ACE Fellows, and other senior leaders in higher education” (p. 83).

McDaniel’s research provided a solid foundation for further scientific inquiry into the topic of higher education leadership competencies. McDaniel presented leadership competencies that fell into four categories: context, content, process, and communication. Many of McDaniel’s statements were somewhat ambiguous and ill-defined. These statements were subjected to multiple revisions in an effort to clarify, consolidate, and in many cases simplify, the HELC survey. Although researcher interpretation was a limitation in this process, McDaniel’s statements were revised based on pilot study results, a thorough review of existing literature, and a pre-test of the final questionnaire.

McDaniel’s 4-component model resulted in marginal goodness-of-fit scores. Chapter 5 presented these results and provided a comparison with a new 5-component model proposed in this research. Based on fit indices used to analyze the models (GFI, CFI, and RMSEA), the 5-component model generated from this research was a much better fit than McDaniel’s model. However, there were striking similarities as well as differences between the two models that offer provocative topics of discussion and lead to tentative propositions in need of further explanations.

From hereinafter, the new 5-component model proposed in this research is referred to as the Higher Education Leadership Competencies (HELC) Model. The following section compares and contrasts the HELC Model to McDaniel’s model, offers insight into the conclusions, and presents suggestions for future research.
Model Similarities and Differences

The Higher Education Leadership Competencies (HELC) Model as defined by the results of this research includes 5 components:

- Analytical Leadership Competencies
- Communication Leadership Competencies
- Student Affairs Leadership Competencies
- Behavioral Leadership Competencies
- External Relations Leadership Competencies

Each component contains a list of competencies, identified through McDaniel’s qualitative research, that help to define the underlying construct of that component. Using empirical methods, this research extended McDaniel’s findings by refining and validating competencies presented in her model, while eliminating others. Results indicate that McDaniel accurately grouped some competencies together, while inaccurately grouping others. In total, 35 of the original 59 competencies were retained for the new 5-component HELC Model. Furthermore, there were a few unique variables that did not statistically factor with the new 5-component model, but were found to be important.

Eight items within McDaniel’s category of Process factored together within the Analytical category of the HELC Model. All five items on the Behavioral category of the HELC Model were drawn from McDaniel’s category of Process. Similarly, nine out of eleven competencies within McDaniel’s Communication category were retained in the final HELC Model. Five of the items were listed under a similar category of Communication, and the other four items fell under a category titled Analytical. Table 13

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summarizes how many competencies were retained from each of McDaniel’s four original categories.

Table 13. Competencies Retained from McDaniel’s Model

<table>
<thead>
<tr>
<th>McDaniel’s Original Four Categories</th>
<th># Competencies</th>
<th>HELC Model</th>
<th>% of Competencies Retained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td>11</td>
<td>6</td>
<td>55%</td>
</tr>
<tr>
<td>Content</td>
<td>12</td>
<td>6</td>
<td>50%</td>
</tr>
<tr>
<td>Process</td>
<td>25</td>
<td>14</td>
<td>56%</td>
</tr>
<tr>
<td>Communication</td>
<td>11</td>
<td>9</td>
<td>82%</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>35</td>
<td>59%</td>
</tr>
</tbody>
</table>

Up until now, McDaniel’s model was based on qualitative methods and had not been subjected to empirical testing. There were significant and substantial claims made by McDaniel that are both supported and refuted by the current data. Unlike McDaniel’s original 4-factor model (content, context, process, and communication), the HELC Model contains five leadership competency categories: analytical, communication, student affairs, behavioral, and external relations. These five leadership competency categories were identified through factor analysis statistical techniques based on data collected through the HELC Survey. Categorical labels were determined by the researcher based on the similarities among variables (competency statements) that made up each factor component. A significant relationship between McDaniel’s model and the HELC Model is that each of the four categories presented by McDaniel contains groupings of variables that fit within the five categories of the HELC Model. Conversely, some of McDaniel’s
competencies did not fit within the HELC Model at all. In the following pages, each of the HELC Model categories is presented. A discussion of how the five categories of the HELC Model relate to the four categories of McDaniel's model, with additional insight into the significance of these outcomes, follows. Categories are presented in order of similarity between the two models.

Communication Leadership Competencies

Both models contain a category labeled Communication. All five competency statements that make up the category of Communication in the HELC Model are also contained within McDaniel's Communication category. To make the distinction even clearer, four of the five communication competency statements in the HELC Model also fall within the sub-category of Active Communication as synthesized in the nomological network. In general, conclusions can be drawn to support existing literature that discusses the importance of communication (Bensimon & Neumann, 1993; Birnbaum, 1992; Birnbaum & Eckel, 2005; Cohen & March, 1986; Dressel, 1981; Filan & Seagren, 2003; Fisher & Koch, 1996, 2004; Gilley et al., 1986; Green, 1988; Kouzes & Posner, 2003; McLaughlin, 2004; Padilla, 2005), although not specifically differentiating between active and passive modes of communication. Active Communication was a label created by the researcher, a priori, to describe the similar types of communication competencies detailed in McDaniel's original mode.

Only one Communication competency, "Presents self well professionally as a leader," was identified as a passive form of communication in the nomological network. However, it may be relevant and appropriate to consider one's professional presentation (dress, hygiene, etiquette, etc.) as an active rather than passive form of communication.
A summary comparing communication competencies and where they fell within each model category is provided in Table 14. This table details the evolution from McDaniel's model, to the construct of the nomological network, to the final HELC Model.

Table 14. Communication Leadership Competencies: Model Category Comparison

<table>
<thead>
<tr>
<th>Leadership Competency Measure</th>
<th>McDaniel's Model</th>
<th>Nomological Net Subcategory</th>
<th>HELC Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicates vision effectively</td>
<td>Communication</td>
<td>Active Comm.</td>
<td>Communication</td>
</tr>
<tr>
<td>Communicates effectively</td>
<td>Communication</td>
<td>Active Comm.</td>
<td>Communication</td>
</tr>
<tr>
<td>Expresses views articulately in multiple forms of communication</td>
<td>Communication</td>
<td>Active Comm.</td>
<td>Communication</td>
</tr>
<tr>
<td>Communicates effectively with multiple constituent groups in multiple contexts</td>
<td>Communication</td>
<td>Active Comm.</td>
<td>Communication</td>
</tr>
<tr>
<td>Presents self well professionally as a leader</td>
<td>Communication</td>
<td>Passive Comm.</td>
<td>Communication</td>
</tr>
</tbody>
</table>

Within the body of higher education leadership literature used for the current research, communication was only sparsely mentioned. Most commonly, communication was referenced in the context of collaboration, teams, shared governance, committees, and relationship building (Bensimon & Neumann, 1993; Birnbaum, 1992; Birnbaum & Eckel, 2005; Cohen & March, 1986; Dressel, 1981; Ferren & Stanton, 2004; Filan & Seagren, 2003; Green, 1988; Hoffman & Summers, 2000; Kouzes & Posner, 2003; Padilla, 2005). However, data from this research, which was subjected to factor analysis procedures, did not conclusively categorize collaborative forms of communication within any of the emergent factor components.

This study found the most important communication competency to be “Presents self well professionally as a leader.” Participants rated this competency a 4.79 on a scale of 1 (not important) to 5 (very important), ranking it the second highest competency of all
59 on the survey. This finding is in disagreement with Fisher et al.'s (1988) research that found effective college presidents are not “overly concerned with their wardrobes” (p. 74). Fisher et al. offered the conclusion that effective presidents (rather than representative presidents) have “more to worry about” than their clothing and that they bring more substance to the presidency than representative presidents. This research was concerned with “effective leadership” and therefore the data seems to suggest that “effective” presidents, as described in Fisher et al.’s study, could be even more effective if they attended to personal appearance and professional representation more strategically. However, this is difficult to prove, as the current study was much broader in perspective. “Presents self well professionally as a leader” could be interpreted very differently among participants. For example, rather than dress or wardrobe, it could refer to etiquette, demeanor, or posture.

Behavioral Leadership Competencies

Behavioral leadership competencies, as identified in the HELC Model, can be defined as the general way in which a person conducts oneself while serving in a leadership capacity. Although somewhat difficult to label, the competencies in this category are best described as the behavior, or type of attitude, necessary to display in an effort to produce effective outcomes within an organization. It is important to note that the labels presented in the HELC Model are subjective and were left to the interpretation of the researcher. Other scholars and researchers might generate different categorical labels based on their own synthesis of existing literature and interpretation of the data.

Interestingly, all five competencies listed under the Behavioral category in the HELC Model were also listed under one category, Process, in McDaniel’s model. In
addition, four of the five behavioral leadership competencies fell within the sub-category of Behavioral Process as synthesized in the nomological network.

An important point of clarification is in order. The label of Behavioral Process was assigned to the sub-category of the nomological network 8-10 months prior to assigning labels to the current HELC Model. While creating the nomological network, the researcher referenced existing literature, analyzed the relationships among the variables, and assigned subcategory labels accordingly. This was a subjective yet strategic process. When assigning labels to the HELC Model after data collection and analysis, the researcher did not reference the nomological network. The Behavioral label was assigned based on the logical relationships of the competency statements grouped together in this category. It is interesting to note that out of 25 original Process competencies in McDaniel’s model, four of the five Behavioral competencies in the HELC Model were previously categorized into a sub-category similarly titled Behavioral Process.

Only one Behavioral competency from the HELC Model, “Learns from others,” did not fall within the subcategory of Behavioral Process in the nomological network. Rather, it was assigned within the subcategory of Leadership Development Process. As stated previously, the subcategories that emerged within the nomological network were derived mainly from examining logical relationship among the variables. Therefore, “Learns from others” could be considered a Behavioral Process rather than a Leadership Development Process. Regardless, all five competencies are related and fall within McDaniel’s category of Process.
All items within the *Behavioral* category of the HELC model substantiate their similar grouping within the *Process* category of McDaniel's model. Furthermore, the HELC Model supports and refines existing literature that specifically points to these five behavioral items as important for effective higher education leadership (Bensimon & Nuemann, 1993; Bensimon et al., 1989; Birnbaum, 1992; Chibucos & Green, 1989; Filan & Seagren, 2003; Fisher et al., 1988; Fisher & Koch, 1996; Green, 1988; Green & McDade, 1991; Hoppe, 2003; Julius et al., 1999; Kouzes & Posner, 2003; Land, 2003; Oppelt, 1984; Padilla, 2005; Raines & Alberg, 2003; Wolverton & Gmelch, 2002). A summary comparing behavioral leadership competencies and where they fit within each model category is provided in Table 15.

Table 15. Behavioral Leadership Competencies: Model Category Comparison

<table>
<thead>
<tr>
<th>Leadership Competency Measure</th>
<th>McDaniel's Nomological Net Model Subcategory</th>
<th>HELC Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognizes the value of a sense of humor</td>
<td>Process Behavioral</td>
<td>Behavioral</td>
</tr>
<tr>
<td>Supports leadership of others</td>
<td>Process Behavioral</td>
<td>Behavioral</td>
</tr>
<tr>
<td>Demonstrates unselfish leadership</td>
<td>Process Behavioral</td>
<td>Behavioral</td>
</tr>
<tr>
<td>Does not take self too seriously</td>
<td>Process Behavioral</td>
<td>Behavioral</td>
</tr>
<tr>
<td>Learns from others</td>
<td>Process Lead. Dev Process</td>
<td>Behavioral</td>
</tr>
</tbody>
</table>

Two of the *Behavioral* competencies, "Recognizes the value of a sense of humor" and "Does not take self too seriously" focus on the leader's general attitude, describing someone who encourages a light-hearted and fun environment, is less anxious, and understands the value of laughter. This is consistent with research conducted by Fisher et al. (1988). Fisher et al.'s interviews of 18 university presidents concluded that "[e]ven though they spend most waking hours performing presidential duties, these effective
presidents are still able to see the lighter side of life" (p. 88). “The leadership of higher education institutions is serious business; yet, they do not take themselves too seriously” (Fisher et al., p. 88). Fisher et al. further noted that a sense of humor helps quell the anxiety that is often associated with leading higher education institutions (1988, p. 88). Padilla (1995) found similar results in his interviews with six highly regarded former university presidents. He points to having an “excellent sense of humor” (p. 254) as an important component of interpersonal relations.

The three other behavioral competencies, “Supports leadership of others,” “Demonstrates unselfish leadership,” and “Learns from others” describe a leader who puts others before him/herself in a distinctly unselfish way. In most higher education literature, supporting leadership of others and demonstrating unselfish leadership is usually described in the context of “teams” and the importance of “teamwork” in the workplace (Alfred & Rosevear, 2000; Bensimon & Neumann, 1993; Birnbaum, 1992; Brown, 2000; Ferren & Stanton, 2004; Filan & Seagren, 2003; Gilley, Fulmer, & Reithlingshoefer, 1986; Green, 1988; Johnston, 2003; Julius, Baldridge, & Pfeffer, 1999; Kouzes & Posner, 2003; Moomaw, 1984; Padilla, 2005). However this “team” approach to interpreting unselfish leadership and supporting leadership of others may not be entirely accurate. This author suggests that a leader must do more than simply create teams by virtue of working committees and task forces. A leader must also display sincere (Padilla, 2005) and empathetic (Goleman, 1998) behavior toward others.

Sincerity and empathy are not specifically defined in the Behavioral category; however they are somewhat related to unselfish behavior. In addition, Wolverton and Gmelch (2002) concluded that academic leadership involves the behavior of “empowering
others.” They found, among other things, that effective leaders “share power and influence with others” and “express appreciation when people perform well” (p. 35). Although their research was based on the perceptions of deans, their conclusions help further define unselfish leadership. It is suggested that future iterations of this research include competency statements relating to sincerity, empathy, and empowering others within the Behavior category of the HELC Model.

Analytical Leadership Competencies

Analytical leadership competencies as identified in the HELC Model can be defined as information gathering, combined with analytical thinking and facilitative communication in an effort to carry out effective and efficient systems and processes. In many ways, this is the strategic planning process of the leader’s responsibilities, and explains the most variance (nearly 20%) of the HELC Model. Out of the 16 items that factored into this category, eight of the items were drawn from the category of Process in McDaniel’s model. In fact, Process contains the most items in McDaniel’s model (25 competencies), as does the Analytical category in the HELC Model (16 competencies). Therefore, results of this research provide empirical evidence that supports the eight analytical items grouped together in the HELC Model that were also grouped together in McDaniel’s model under Process.

Similar to the HELC Model categories of Communication and Behavioral leadership, the Analytical category has a distinct grouping of variables that fall within the subcategory of Entrepreneurial Process of the nomological network. It is interesting to note that in all three HELC Model categories discussed thus far (Communication, Behavioral, and Analytical), the data supports many of the competency groupings.
presented by McDaniel and the more refined subcategory groupings within the nomological network developed and presented in this research.

Upon further analysis of the Analytical category, results support existing literature that suggests effective leaders in higher education should have a strong entrepreneurial orientation (Bass, 1998; Bensimon, Neumann, & Birnbaum, 1989; Cohen & March, 1986; Ehrle & Bennett, 1988; Ferren & Stanton, 2004; Filan & Seagren, 2003; Fisher & Koch 1996, 2004; Fisher, Tack, & Wheeler, 1988; Julius, Baldrige, & Pfeffer, 1999; Levin, 2000; Peck, 1983; Pfeffer, 1977; Vroom, 1983; Wolverton & Gmelch, 2002). Fisher & Koch (2004) published an entire book on the topic titled The Entrepreneurial College President. Their book presented research based on the attitudes and beliefs of over 700 college and university presidents. Fisher & Koch suggested that “a group of transformational, entrepreneurial presidents does exist today” (p. 143) and are the most effective, which is consistent with earlier research conducted by Peck (1983). Although these studies were focused on the college president, results of the current research are based on senior leaders below the president and confirm that a grouping of variables does, indeed, exist that relate to the importance of entrepreneurial competence for effective higher education leadership.

Four of the items listed under the Analytical category of the HELC Model were also listed under the Communication category of McDaniel’s model. These items, which include “Applies analytical thinking to enhance communication in complex situations,” “Demonstrates ability to diplomatically engage in controversial issues,” “Engages multiple perspectives in decision making,” and “Facilitates effective communication among people with different perspectives” all relate to the idea of using analytical
thinking to help process information and effectively communicate within the organization in an effort to carry out systems and processes. Clearly, these competencies refer to a much different form of communication than the “active” communication competencies listed under the *Communication* category of the HELC Model.

Finally, there were four items from the *Analytical* category of the HELC Model that fell within McDaniel’s categories of *Context* and *Content* (two in each category). Three of the four items were related to issues specific to higher education learning organizations, and one of the items referenced the importance of networking with colleagues. However, all of the items relate to analytical thinking and strategic planning. A summary comparing analytical leadership competencies and where they fell within each model category is provided in Table 16.
Table 16. Analytical Leadership Competencies: Model Category Comparison

<table>
<thead>
<tr>
<th>Leadership Competency Measure</th>
<th>McDaniel’s Model</th>
<th>Nomological Net Subcategory</th>
<th>HELC Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tolerates Ambiguity</td>
<td>Process</td>
<td>Entrepreneurial Process</td>
<td>Analytical</td>
</tr>
<tr>
<td>Facilitates the change process</td>
<td>Process</td>
<td>Entrepreneurial Process</td>
<td>Analytical</td>
</tr>
<tr>
<td>Demonstrates resourcefulness</td>
<td>Process</td>
<td>Entrepreneurial Process</td>
<td>Analytical</td>
</tr>
<tr>
<td>Accurately assesses the costs and benefits of risk-taking</td>
<td>Process</td>
<td>Entrepreneurial Process</td>
<td>Analytical</td>
</tr>
<tr>
<td>Responds appropriately to change</td>
<td>Process</td>
<td>Entrepreneurial Process</td>
<td>Analytical</td>
</tr>
<tr>
<td>Learns from self reflection</td>
<td>Process</td>
<td>Leadership Dev. Process</td>
<td>Analytical</td>
</tr>
<tr>
<td>Seeks to understand human behavior in multiple contexts</td>
<td>Process</td>
<td>Leadership Dev. Process</td>
<td>Analytical</td>
</tr>
<tr>
<td>Demonstrates negotiation skills</td>
<td>Process</td>
<td>Behavioral Process</td>
<td>Analytical</td>
</tr>
<tr>
<td>Facilitates effective communication among people with different perspectives</td>
<td>Communication</td>
<td>Collaborative Comm.</td>
<td>Analytical</td>
</tr>
<tr>
<td>Engages multiple perspectives in decision making</td>
<td>Communication</td>
<td>Collaborative Comm.</td>
<td>Analytical</td>
</tr>
<tr>
<td>Applies analytical thinking to enhance communication in complex situations</td>
<td>Communication</td>
<td>Passive Communication</td>
<td>Analytical</td>
</tr>
<tr>
<td>Demonstrates ability to diplomatically engage in controversial issues</td>
<td>Communication</td>
<td>Active Comm.</td>
<td>Analytical</td>
</tr>
<tr>
<td>Sustains productive relationships with networks with colleagues</td>
<td>Context</td>
<td>Constituency Context</td>
<td>Analytical</td>
</tr>
<tr>
<td>Demonstrates understanding of complex issues related to higher education</td>
<td>Context</td>
<td>Organizational Context</td>
<td>Analytical</td>
</tr>
<tr>
<td>Demonstrates understanding of academics</td>
<td>Content</td>
<td>Organizational Context</td>
<td>Analytical</td>
</tr>
<tr>
<td>Fosters the development and creativity of learning Organizations</td>
<td>Content</td>
<td>Strategic Planning Content</td>
<td>Analytical</td>
</tr>
</tbody>
</table>

**External Relations Leadership Competencies**

The *External Relations* component of the HELC Model is a clearly defined category with highly correlated competency statements. *External Relations* refers to all activity that occurs externally to the institution. From a broad standpoint, external relations include areas such as marketing, development, fundraising, public and media relations, intercollegiate athletics, community and government relations, and so forth.

Three of the five items listed under the category of *External Relations* within the HELC Model fell under *Context* in McDaniel’s model. These items are “Relates well with governing boards,” “Applies skills to affect decisions in government contexts,” and
“Works effectively with the media.” Similar to the results from the other HELC Model categories, all three of the competency statements that fell within McDaniel’s *Context* category were part of the nomological network subcategory of *Constituency Context*. It has been well documented that working effectively with multiple constituent groups and stakeholders is an important competency in higher education (Bensimon, Neumann, & Birnbaum, 1989; Birnbaum & Eckel, 2005; Bess & Webster, 1999; Bright & Richards, 2001; Dressel, 1981; Ehrle & Bennett, 1988; Ferren & Stanton, 2004; Filan & Seagren, 2003; Fisher & Koch, 1996, 2004; Gilley, Fulmer, & Reithlingshoefer, 1986; Gladieux, King, & Corrigan, 2005; Harcleroad & Eaton, 2005; Julius, Baldrige, & Pfeffer, 1999; Kouzes & Posner, 2003; McGuinness, 1995; 2005; Padilla, 2005; Rosenzweig, 2001; Rowland, 1980). However, McDaniel’s model did not specifically identify external relations as a category in and of itself.

The remaining two competencies, “Demonstrates an understanding of athletics,” and “Demonstrates an understanding of advancement,” were classified within *Content* of McDaniel’s model. Both of these competencies were grouped together within the nomological network subcategory of *Organizational Content*. Clearly, there are many more competencies listed in McDaniel’s model that define organizational dimensions of higher education. However, results of the factor analysis only classified athletics and advancement as part of the *External Relations* component. Intuitively, this is a logical and reasonable outcome and further strengthens the validity of the new five-component HELC Model. A summary comparing external relations leadership competencies and where they fell within each model category is provided in Table 17.
There is a significant body of literature that suggests external relations has become increasingly important to the life of higher education institutions. Some of the most recent higher education leadership literature clarifies this point (Filan & Seagren, 2003; Fisher & Koch, 2004; Gladieux et al., 2005; Harcleroad & Eaton, 2005; Kouzes & Posner, 2003; Padilla, 2005; Wolverton & Gmelch, 2002). Even some of the earliest literature addressed the importance of external relations in the academy. Referencing public relations, Day (1946) suggested over 60 years ago that “the president is chief custodian of the reputation and prestige of the institution he heads” (p. 34). He continued, “This means that he must be constantly concerned with the public’s perception of the institution’s activities” (p. 34).

A savvy higher education leader must have the knowledge, skills, abilities, and attributes to navigate through a highly political system. This system is made up of constituents and stakeholders that include alumni, students, parents, donors, regents, community and government officials, and all other individuals that are connected externally to the institution. Interestingly, athletics directors were the only group to rank

Table 17. External Relations Leadership Competencies: Model Category Comparison

<table>
<thead>
<tr>
<th>Leadership Competency Measure</th>
<th>McDaniel’s Model</th>
<th>Nomological Net Subcategory</th>
<th>HELC Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relates well with governing boards</td>
<td>Context</td>
<td>Constituency Context</td>
<td>External Rel.</td>
</tr>
<tr>
<td>Applies skills to affect decisions in government contexts</td>
<td>Context</td>
<td>Constituency Context</td>
<td>External Rel.</td>
</tr>
<tr>
<td>Works effectively with the media</td>
<td>Context</td>
<td>Constituency Context</td>
<td>External Rel.</td>
</tr>
<tr>
<td>Demonstrates understanding of advancement</td>
<td>Content</td>
<td>Organizational Content</td>
<td>External Rel.</td>
</tr>
<tr>
<td>Demonstrates understanding of athletics</td>
<td>Content</td>
<td>Organizational Content</td>
<td>External Rel.</td>
</tr>
</tbody>
</table>
this category as more important than the other categories, when analyzing the data.

Additional discussion on this topic is provided in future sections.

One noticeable flaw of McDaniel's original model is the lack of variables relating to the external relations function. External relations competencies were not specifically categorized in her model, but rather spread throughout other categories, albeit sparsely. For example, McDaniel's model failed to address the trend toward commercialization within higher education institutions, as described by Bok (2003). Commercialism has become a driving force for revenue generation at colleges and universities nationwide. Bok (2003) states, "During the past twenty-five years, universities have become much more active in selling what they know and do to individuals and corporations" (p. vii). Bok points to intercollegiate athletics, research, intellectual property, and for-profit business entities as influential money-making enterprises that have a tremendous impact on post-secondary institutions. Although intercollegiate athletics is referenced in the External Relations component of the HELC Model as an important competency, many other important competencies as described by Bok (2003) are missing.

Student Affairs Leadership Competencies

Student affairs leadership competencies were the last set of competencies identified and labeled as part of the data reduction process for creating HELC Model. Initially, a four-component model was the most logical solution. However, when forcing a five-component solution, four student affairs competencies emerged from the Analytical component, while all other variables remained constant. Two of the competencies, "Demonstrates understanding of student affairs" and "Demonstrates understanding of legal issues" were categorized within the Content domain of
McDaniel's model. Both of these competencies fell within the subcategory of Organizational Content of the nomological network. The other two competencies, "Responds to issues and needs of contemporary students" and "Attentive to emerging trends in higher education" fell under McDaniel's categories of Process and Context respectively.

Three of McDaniel's categories are represented among the four competencies listed in the Student Affairs component. However, there are some interesting similarities between the subcategories represented by the nomological network. When formulating the nomological network subcategories for McDaniel's model, the researcher found similarities among some of the competencies listed under both Context and Content. Therefore, a decision was made to assign the label of "Organizational" as a sub-category for both Context and Content. A closer examination of the competencies that make up the HELC Model category of Student Affairs reveals that three of the four competencies belong to the sub-category of either Organizational Context or Organizational Content within the nomological network. This finding helps substantiate existing theoretical relationships that were determined a priori regarding the classification of student affairs competencies within the greater organizational structure of higher education. Results of the current research are consistent with existing literature that emphasizes the student affairs domain in higher education leadership (Ferren & Stanton, 2004; Ehrle & Bennett, 1988). Some authors, such as Barr et al. (2003), Barr and Albright (1990), and Sandeen (1991, 2000, 2001) have written extensively on the importance of student affairs leadership and its impact on student outcomes, performance, and development.
Similar to the external relations component, McDaniel’s model contains limited statements regarding student affairs competencies. Rather, a small number of competencies are mixed in among other categories. However, within the current HELC Model student affairs competencies were noticeably grouped together within a 5-factor structure. A closer look at the body of student affairs literature suggests more research is necessary to better refine and define this component within the HELC Model.

A summary comparing student affairs leadership competencies and where they fell within each model category is provided in Table 18.

Table 18. Student Affairs Leadership Competencies: Model Category Comparison

<table>
<thead>
<tr>
<th>Leadership Competency Measure</th>
<th>McDaniel’s Model</th>
<th>Nomological Net Subcategory</th>
<th>HELC Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates understanding of student affairs</td>
<td>Content</td>
<td>Organizational Content</td>
<td>Student Aff.</td>
</tr>
<tr>
<td>Demonstrates understanding of legal issues</td>
<td>Content</td>
<td>Organizational Content</td>
<td>Student Aff.</td>
</tr>
<tr>
<td>Attentive to emerging trends in higher education</td>
<td>Context</td>
<td>Organizational Context</td>
<td>Student Aff.</td>
</tr>
<tr>
<td>Responds to issues and needs of contemporary students</td>
<td>Process</td>
<td>Entrepreneurial Process</td>
<td>Student Aff.</td>
</tr>
</tbody>
</table>

Similar to the other components, it is intuitively logical that student affairs competencies are important for effective higher education leadership. However, this component only emerged after numerous data reduction attempts. In addition, the data illustrate that it was not found to be as important among athletics directors and chief academic officers. One can speculate that difficulties identifying this component were the result of a lack of clear and distinct student affairs competencies presented in McDaniel’s model. As previously discussed, only four competencies emerged within the Student Affairs component. Furthermore, the competency “Demonstrates understanding
of legal issues” was not initially interpreted to theoretically correlate with the other competencies in this category. However, after further reflection, it was determined that many if not most of the higher education legal issues are student-oriented. Academic institutions spend large sums of money on student conduct, code, and policy manuals that specifically address student matters, often from a legal perspective. In addition, most institutions now employ full-time legal counsel to address the large number of legal issues that have emerged on college campuses.

Non-Retained and Unique Competencies

As previously stated competencies were initially eliminated that loaded on multiple components and fell below a factor score of .4. As the data reduction process continued, and components became more clearly defined, some competencies that were initially eliminated were brought back in for further analysis. The final lower bound factor score cut-off was set at .5. Clearly, data reduction is very subjective and the process is often described as more of an art than science (Kachigan, 1986).

The first and perhaps most provocative finding is that items associated with collaboration, shared governance, and team-oriented processes did not load well in the final solution of the HELC Model. Five competencies fit in this category:

- Develops partnership with multiple constituent groups
- Engages multiple units in decision making
- Builds effective teams
- Demonstrates inclusiveness in all environments
- Contributes to effective teamwork
Interestingly, items related to teamwork, such as “Builds effective teams” and “Contributes to effective teamwork” scored high on the Likert scale at 4.79 and 4.63 respectively (Appendix VIII). However, items related to inclusive decision making, such as “Engages multiple units in decision making” and “Demonstrates inclusiveness in all environments,” scored much lower at 4.43 and 4.34 respectively (Appendix VIII). It seems reasonable that these items might factor together when running a six-factor solution, however this was not the case.

The collaborative, team approach to higher education leadership is discussed in great detail in existing literature (Alfred & Rosevear, 2000; Bensimon & Neumann, 1993; Birnbaum, 1992; Birnbaum & Eckel, 2005; Brown, 2000; Dressel, 1981; Ferren & Stanton, 2004; Filan & Seagren, 2003; Gilley, Fulmer, & Reithlingshoefer, 1986; Green, 1988; Johnston, 2003; Julius, Baldrige, & Pfeffer, 1999; Kouzes & Posner, 2003; Moomaw, 1984; Padilla, 2005). In fact, Ferren & Stanton (2004) authored an entire book titled *Leadership Through Collaboration: The Role of the Chief Academic Officer*. They suggested that collaborative processes and partnerships are equally as important as informed decision-making. Although the shared governance model of higher education administration is typically the most desired model among faculty, results of this research are not clear on where shared governance fits within the HELC Model. This author proposes that informed decision-making is a more *effective* approach to leadership in higher education; however more research is necessary to fully support this claim.

The second theme that emerged from items that were eliminated from the final model addresses the issue of organizational culture. All three competencies related to culture did not fit within the final HELC Model. They are:
- Embraces institutional culture
- Considers institutional culture in decision making
- Recognizes aspects of institutional culture

These competencies were listed within McDaniel’s category of Context. A significant body of literature exists on the topic of organizational culture in higher education (Bensimon, Neumann, & Birnbaum, 1989; Birnbaum & Eckel, 2005; Chaffee & Tierney, 1988; Clark, 1972; Cohen & March, 1986; Dill, 1982; Goodchild & Wechsler, 1997; Green, 1988; Hurtado, 1992; Kuh & Whitt, 1988; Martin, Samels, & Associates, 1997; Padilla, 2005; Peterson & Spencer, 1990; Masland, 1985). Upon further analysis, the three items listed above scored 4.50, 4.45, and 4.45 on the Likert scale (Appendix VIII). These scores fell in the middle range of the entire list of competencies (Appendix VIII).

Although the items defining culture from McDaniel’s model did not fit in the current HELC Model, more research is necessary to further analyze this complex variable in relation to higher education leadership.

The three competencies related to learning and professional development either did not load or cross loaded on more than one component. They are:
- Learns from experience
- Demonstrates the capacity for lifelong learning
- Encourages professional development

Elements of the first two competencies, “Lears from experience” and “Demonstrate the capacity for lifelong learning,” may relate to other statements that were included in the HELC Model, such as “Learns from others” or “Learns from self reflection.” Likewise, “Encourages professional development” was found to load on more than one component,
which could imply there may be a way to construct the statement to clarify its meaning for a better fit. Again, more research is necessary to determine where, or if, these competencies fit within the current HELC Model.

The fourth eliminated category that appeared to thematically cluster together centered on the topic of finance, budgeting, and planning. Three competency statements fell within this category:

- Demonstrates understanding of finance and budgeting
- Leverages institutional resources for maximum benefit
- Demonstrates understanding of planning

All three statements either altered the final model significantly or did not load, depending on the solution that was analyzed. In many ways, one might describe the competencies listed above as relating to strategic planning, which was discussed within the category of Analytical Leadership Competencies. However, there is a similarity among the three competencies listed above and how they relate, or do not relate, to strategic planning as presented within the context of analytical leadership. The competencies listed above are much more black and white. That is, they relate to very structured activities, such as accounting, money management, business planning, and resource dissemination.

Strategic planning, as discussed within the context of Analytical Leadership, is a much more entrepreneurial and creative process. This research suggests that to be an effective leader, it is more important to be creative in an entrepreneurial sense than to have the skills and abilities to crunch numbers. This might explain why the strategic planning competencies listed above did not fit within the context of the current HELC Model.
Finally, there were many competencies that both did not fit within the current HELC Model and did not fall within one of the categories listed above. These competencies are:

- Demonstrates understanding of technology
- Demonstrates courage for educated risk taking
- Acts consistent with core values and integrity
- Applies listening skills to enhance communication in complex situations
- Demonstrates an understanding of the U.S. system of higher education
- Demonstrates understanding of diversity
- Understands impact on others
- Makes decisions consistent with institutional goals
- Demonstrates understanding of leadership
- Applies multiple skills to solve problems

In many of the model solutions tested for this research, the competency “Demonstrates understanding of technology” was found to load on the component of student affairs. It seems logical and reasonable that technology is related to the component of Student Affairs, given the vast technological advances that have been made and the technological savvy of current higher education students. However, this competency was not retained because of its adverse impact on other variables within the HELC Model. Additional research is needed to more accurately describe technology and its relationship to student affairs competencies necessary for effective higher education leadership.
The highest ranking competency, “Acts consistent with core values and integrity,” with a mean Likert score of 4.88, was eliminated because it cross-loaded on multiple categories, depending on the solution. One would be hard pressed to argue against the importance of leading with integrity and core values; however it did not fit within the final HELC Model solution. Paradoxically, upon analyzing the Likert score results of this competency among the three groups (Appendix VIII), athletics directors rated it nearly a full tenth of a point lower (4.82) than senior student affairs officers (4.91) and chief academic officers (4.90). This might explain some of the problems associated with rules violations and unethical behavior throughout NCAA Division I athletics. Additional data analysis and research may provide for some interesting conclusions on this topic.

The competency “Demonstrates understanding of the U.S. system of higher education” was found to cross-load on multiple components, depending on the solution tested. As previously discussed, its Likert score (3.79) ranked second to last on the entire list of 59 competencies. This suggests that understanding systems and processes related specifically to higher education is not important for effective leadership. One might conclude that an effective leader outside of higher education could potentially be an effective leader within a higher education organization. As the data illustrate, current senior leaders of academia might agree. However, an outsider would have to overcome a significant obstacle related to the issue of credibility. Members of the faculty are often unimpressed with and largely skeptical of leaders of their institution who possess anything less than a terminal degree and have not risen through the ranks of academia. Building credibility is a function of time. A leader must prove him/herself through
effective decision-making with measurable results and outcomes. However, this process is often difficult without appropriate credentials and experience. Additional research is necessary to determine the consequences of inadequate credentialing and effective leadership, as determined by faculty and other members of higher education organizations.

As detailed above, results suggest there may be some missing factors of the HELC Model. In addition, some of the competencies listed in this section may be considered unique variables. As this study found, many competencies did not factor with the final HELC Model solution. However, there were multiple variables that seemed to logically and theoretically correlate together. These variables defined competencies associated with collaboration, culture, finance and budgeting, and others. Although many competencies scored high on the Likert scale, such as “Acts consistent with core values and integrity,” additional research and analyses is necessary to make precise claims regarding their fit and relevance with the current HELC Model.

Suggestions for Future Research

The HELC Model presents competencies that describe a leader as an entrepreneurial, creative, and analytical thinker who has the ability to communicate effectively, engages multiple perspectives in decision making, understands the importance of and embraces external relations, works for the best interest of students, and displays unselfish leadership behavior toward others. Although this research is exploratory in nature, it offers multiple opportunities for additional inquiry moving forward.
As demonstrated by the results of the SEM analysis, the new 5-component HELC Model is a significant improvement from McDaniel's model. The current research was based on the perceptions of athletics directors, senior student affairs officers, and chief academic officers. These positions were chosen because of their executive-level status and because they have a significant impact on student outcomes, development, and performance. Moreover, they have been largely ignored from an empirical standpoint. This research provides a significant step in offering data on the attitudes, beliefs, and perceptions of this population. However, additional senior executives, including presidents, vice presidents of finance and administration, vice presidents of development and advancement, legal counsel, and many others should be surveyed. To gain a full understanding of competencies necessary for effective higher education leadership, deans, department chairs, and directors should also be included. Although this research attempted to identify core higher education leadership competencies, sub-leadership competencies could also be developed across multiple layers of higher education organizations.

The current HELC Model competencies should be reviewed, and in some cases revised, to better reflect and define the underlying construct of each component. More research is necessary to differentiate between active and passive forms of communication and how they relate to effective higher education leadership. Although shared governance drives the majority of decisions on college campuses, more research should be conducted to measure the true effectiveness of this governance structure. The current research suggests that effective teams are important, yet questions remain regarding inclusion and engagement of multiple units in the decision-making process. More
research is needed to describe behavioral competencies, including statements related to
empathy, sincerity, and empowerment. In addition, the categories of Student Affairs and
External Relations lack important components and are ill-defined. Additional research is
recommended on the concept of credibility through credentialing and its impact on
effective leadership outcomes. Furthermore, research on the importance of values and
ethics as perceived by athletics directors and other higher education leaders should be
conducted. More research is also needed regarding the relevance, or irrelevance, of
McDaniel’s competencies that were not retained in the final version of the HELC Model.

Finally, additional research should be conducted to validate and refine the HELC
Survey instrument. As additional competencies are developed and current competencies
refined, the HELC Survey will need to be revised, tested, retested, and validated
accordingly.
CHAPTER 7

RESULTS AND ANALYSIS: RESEARCH QUESTIONS 2 & 3

Introduction

This chapter presents the results of the data in relation to research questions 2 and 3 (between and within group differences) and hypotheses 2a, 2b, 2c, 2d, 2e, 3a, 3b, and 3c. The next chapter, Chapter 8, provides a discussion of these results. For this chapter, data analyses include:

- Multivariate Analysis of Variance (and appropriate analyses of variance and post-hoc follow-up analyses)

Multivariate Analysis of Variance

The design of this study required multivariate analysis of variance (MANOVA) and analysis of variance (ANOVA) procedures to test for between and within group differences. The independent variable for this research was senior leaders in higher education. There were three levels of the independent variable: athletics directors, senior student affairs officers, and chief academic officers. The dependent variable was the score on a Likert scale measuring the importance of competencies necessary for effective leadership in higher education.

Prior to running the MANOVA, mean Likert scores for each retained variable were multiplied by factor loadings for that variable to generate weighted scores.
Weighted scores using factor loadings provide a more accurate measure of the amount of variance a specific variable contributes to its component.

Table 19 presents mean factor-weighted Likert scores for each component across groups, as generated from the MANOVA output.

<table>
<thead>
<tr>
<th>Competency</th>
<th>Athletics Directors</th>
<th>Senior Student Affairs Officers</th>
<th>Chief Academic Officers</th>
<th>All Groups Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical Leadership</td>
<td>2.49</td>
<td>2.70</td>
<td>2.69</td>
<td>2.63</td>
</tr>
<tr>
<td>Communication Leadership</td>
<td>2.78</td>
<td>2.82</td>
<td>2.81</td>
<td>2.80</td>
</tr>
<tr>
<td>Student Affairs Leadership</td>
<td>2.62</td>
<td>2.98</td>
<td>2.70</td>
<td>2.79</td>
</tr>
<tr>
<td>Behavioral Leadership</td>
<td>2.82</td>
<td>2.88</td>
<td>2.92</td>
<td>2.87</td>
</tr>
<tr>
<td>External Relations Leadership</td>
<td>2.83</td>
<td>2.57</td>
<td>2.50</td>
<td>2.63</td>
</tr>
</tbody>
</table>

Hypotheses 2a, b, c, d, and e

As briefly discussed in Chapter 4, hypotheses for research question 2 were rewritten to reflect new categories that emerged from reducing the survey data. The following hypotheses reflect these changes:

2a) Null Hypothesis: There is no significant difference of the perception of importance within *Analytical Leadership Competencies* between athletics directors, senior student affairs officers, and chief academic officers.

2b) Null Hypothesis: There is no significant difference of the perception of importance within *Communication Leadership Competencies* between
athletics directors, senior student affairs officers, and chief academic officers.

2c) Null Hypothesis: There is no significant difference of the perception of importance within *Student Affairs Leadership Competencies* between athletics directors, senior student affairs officers, and chief academic officers.

2d) Null Hypothesis: There is no significant difference of the perception of importance within *Behavioral Leadership Competencies* between athletics directors, senior student affairs officers, and chief academic officers.

2e) Null Hypothesis: There is no significant difference of the perception of importance within *External Relations Leadership Competencies* between athletics directors, senior student affairs officers, and chief academic officers.

For Hypotheses 2a, b, c, d, and e, a one-way MANOVA was computed for a significant multivariate effect for the dependent variable. A multivariate effect is observed when mean differences among groups on multiple dependent variables is not attributed to chance alone (Tabachnick & Fidell, 2001). The dependent variable for this analysis was the mean factor-weighted Likert scores for each of the five categories of higher education leadership competencies of the five-factor model: *Analytical, Communication, Student Affairs, Behavioral*, and *External Relations*. Data analysis was run using SPSS statistical software (version 15.0). Results indicated a significant multivariate effect, Wilks’ $\lambda = .430$, $F_{(10,526)} = 27.582$, $p < .000$, $\eta^2 = .344$. 

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Analysis of variance (ANOVA) follow-up procedures were conducted to identify the source of the multivariate effect for between group differences for each competency category. F statistics were calculated to determine the source of significance. F statements for all five univariate follow-up tests are presented in Table 20.

Table 20. F Ratios for Univariate Follow-Up Tests

<table>
<thead>
<tr>
<th>Leadership Competency Category</th>
<th>F Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical Leadership Competencies</td>
<td>$F(2, 267) = 21.041, p &lt; .05^*$</td>
</tr>
<tr>
<td>Communication Leadership Competencies</td>
<td>$F(2, 267) = .722, p &gt; .05$</td>
</tr>
<tr>
<td>Student Affairs Leadership Competencies</td>
<td>$F(2, 267) = 39.649, p &lt; .05^*$</td>
</tr>
<tr>
<td>Behavioral Leadership Competencies</td>
<td>$F(2, 267) = 2.644, p &gt; .05$</td>
</tr>
<tr>
<td>External Relations Leadership Competencies</td>
<td>$F(2, 267) = 22.659, p &lt; .05^*$</td>
</tr>
</tbody>
</table>

*significant, $p < .05$

Results indicated significant between group differences for Analytical Leadership Competencies ($F(2, 267) = 21.041, p < .05$), Student Affairs Leadership Competencies ($F(2, 267) = 39.649, p < .05$), and External Relations Leadership Competencies ($F(2, 267) = 22.659, p < .05$). Post hoc multiple comparisons were conducted using Tukey’s follow-up procedure to determine the least amount of difference between the means necessary for significance between groups.

Table 21 presents the mean difference table for Analytical Leadership Competencies. Significant differences are highlighted in bold. A discussion regarding these differences is provided in the following chapters.
Table 21. Mean Difference Table: Analytical Leadership Competencies

<table>
<thead>
<tr>
<th></th>
<th>ADs</th>
<th>CAOs</th>
<th>SSAOs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>2.491</td>
<td>2.694</td>
<td>2.704</td>
</tr>
<tr>
<td>ADs</td>
<td></td>
<td>.000</td>
<td>.203</td>
</tr>
<tr>
<td>CAOs</td>
<td>2.694</td>
<td>.000</td>
<td>.010</td>
</tr>
<tr>
<td>SSAOs</td>
<td>2.707</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

$D_{U}^{\text{key}} = .086$

\[ \text{bold} = \text{significance} \]

Table 22 presents the mean difference table for *Student Affairs Leadership Competencies*. Significant differences are highlighted in bold. A discussion regarding these differences is provided in the following chapters.

Table 22. Mean Difference Table: Student Affairs Leadership Competencies

<table>
<thead>
<tr>
<th></th>
<th>ADs</th>
<th>CAOs</th>
<th>SSAOs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>2.623</td>
<td>2.700</td>
<td>2.979</td>
</tr>
<tr>
<td>ADs</td>
<td>2.623</td>
<td>.000</td>
<td>.077</td>
</tr>
<tr>
<td>CAOs</td>
<td>2.700</td>
<td>.000</td>
<td>.279</td>
</tr>
<tr>
<td>SSAOs</td>
<td>2.979</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

$D_{U}^{\text{key}} = .104$

\[ \text{bold} = \text{significance} \]

Table 23 presents the mean difference table for *External Relations Leadership Competencies*. Significant differences are highlighted in bold. A discussion regarding these differences is provided in the following chapters.

Table 23 presents the mean difference table for *External Relations Leadership Competencies*. Significant differences are highlighted in bold. A discussion regarding these differences is provided in the following chapters.
Table 23. Mean Difference Table: External Relations Leadership Competencies

<table>
<thead>
<tr>
<th></th>
<th>CAOs</th>
<th>SSAOs</th>
<th>ADs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2.495</td>
<td>2.566</td>
<td>2.834</td>
</tr>
<tr>
<td>CAOs</td>
<td></td>
<td>.000</td>
<td>.339</td>
</tr>
<tr>
<td>SSAOs</td>
<td>2.566</td>
<td></td>
<td>.268</td>
</tr>
<tr>
<td>ADs</td>
<td>2.834</td>
<td></td>
<td>.000</td>
</tr>
</tbody>
</table>

D_{cutoff} = .120
bold = significance

Hypotheses 3a, b, and c

Hypotheses 3a, b, and c state:

3a) Null Hypothesis: For the population of athletics directors, there is no significant difference between their perceptions of importance of higher education leadership competencies.

3b) Null Hypothesis: For the population of senior student affairs officers, there is no significant difference between their perceptions of importance of higher education leadership competencies.

3c) Null Hypothesis: For the population of chief academic officers, there is no significant difference between their perceptions of importance of higher education leadership competencies.

For Hypotheses 3a, b, and c, one-way repeated measures analyses of variance (ANOVAs) were computed for each group to determine within group differences across each leadership competency category. Because multiple dependent variables were being analyzed, it was first necessary to convert factor-weighted Likert scores to standardized z scores. This was achieved by subtracting the mean score on each variable (leadership competency) from each participants score, divided by the standard deviation. Z scores
indicate how many standard deviations a participant’s score fell above or below the mean.

The dependent variable for these analyses was the mean factor-weighted standardized score (z score) for each of the five categories of higher education leadership competencies of the five-factor model: Analytical, Communication, Student Affairs, Behavioral, and External Relations. When the analysis produced significant results, post hoc multiple comparisons were conducted using Tukey’s follow-up procedure to determine the least amount of difference between the means necessary for significance within groups.

For athletics directors, mean factor-weighted z scores were computed and analysis of variance conducted to determine significant within group differences across leadership competency categories. The assumption of sphericity was upheld. Results indicated significant within group differences for athletics directors ($F_{(4, 344)} = 33.338, p < .05$). Post hoc multiple comparisons were conducted using Tukey’s follow-up procedure. Table 24 presents mean differences for athletics directors. Significant differences are highlighted in bold. A discussion regarding these differences is provided in the following chapters.
For senior student affairs officers, mean factor-weighted z scores were computed and analysis of variance conducted to determine significant within group differences across leadership competency categories. The assumption of sphericity was upheld. Results indicated significant within group differences for senior student affairs officers ($F(4, 440) = 19.705, p < .05$). Post hoc multiple comparisons were conducted using Tukey’s follow-up procedure. Table 25 presents mean differences for senior student affairs officers. Significant differences are highlighted in bold. A discussion regarding these differences is provided in the following chapters.
Table 25. Mean Difference Table: Senior Student Affairs Officers

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ext. Rel.</td>
<td>-0.1311</td>
<td>0.0000</td>
<td>0.1688</td>
<td>0.2035</td>
<td>0.5455</td>
</tr>
<tr>
<td>Behavioral</td>
<td>0.0377</td>
<td>0.0000</td>
<td>0.0347</td>
<td>0.1311</td>
<td>0.3767</td>
</tr>
<tr>
<td>Comm.</td>
<td>0.0724</td>
<td>0.0000</td>
<td>0.0964</td>
<td>0.3420</td>
<td></td>
</tr>
<tr>
<td>Analytical</td>
<td>0.1688</td>
<td>0.0000</td>
<td>0.0964</td>
<td>0.3420</td>
<td></td>
</tr>
<tr>
<td>Stud. Aff.</td>
<td>0.4144</td>
<td>0.0000</td>
<td>0.0964</td>
<td>0.3420</td>
<td></td>
</tr>
</tbody>
</table>

DTukey = .175
bold = significance

For chief academic officers, mean factor-weighted z scores were computed and analysis of variance conducted to determine significant within group differences across leadership competency categories. The assumption of sphericity was upheld. Results indicated significant within group differences for chief academic officers ($F(4, 284) = 10.977, p < .05$). Post hoc multiple comparisons were conducted using Tukey’s follow-up procedure. Table 26 presents mean differences for chief academic officers.

Significant differences are highlighted in bold. A discussion regarding these differences is provided in the following chapters.

Table 26. Mean Difference Table: Chief Academic Officers

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ext. Rel.</td>
<td>-0.2448</td>
<td>-0.2067</td>
<td>0.0175</td>
<td>0.2623</td>
<td>0.3688</td>
</tr>
<tr>
<td>Stud. Aff.</td>
<td>-0.2067</td>
<td>0.0000</td>
<td>0.2242</td>
<td>0.3307</td>
<td>0.3484</td>
</tr>
<tr>
<td>Comm.</td>
<td>0.0175</td>
<td>0.0000</td>
<td>0.1065</td>
<td>0.1242</td>
<td></td>
</tr>
<tr>
<td>Behavioral</td>
<td>0.1240</td>
<td>0.0000</td>
<td>0.0177</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analytical</td>
<td>0.1417</td>
<td>0.0000</td>
<td>0.0177</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DTukey = .212
bold = significance

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CHAPTER 8

DISCUSSION: SIMILARITIES AND DIFFERENCES BETWEEN AND WITHIN SAMPLE GROUPS

Introduction

Obvious differences exist between the leadership responsibilities of athletics directors, senior student affairs officers, and chief academic officers. Karlin (1995) and others (Judd, 1995; Nielsen, 1989; Parks et al., 1998) have suggested that athletics directors should be competent in areas, such as budget and finance, facilities, communication, personnel issues, risk management, TV contracts, corporate sponsorships, and external affairs, among others. Barr and Associates (1993) emphasize program evaluation, student development, assessment, translating theory into practice, and maintaining high ethical standards as important for senior student affairs officers. Chief academic officers are responsible for strategic planning (Ferren & Stanton, 2004; Padilla, 2005) and are expected to be consensus builders and collaborators (Mech, 1997). Ferren & Stanton (2004) point to academic entrepreneurship, program review, faculty management, and technology as important competencies for chief academic officers. The majority of individuals in all three groups serve at the most senior leadership levels within NCAA Division I member institutions, reporting directly to the president (76%) and serving on the president’s cabinet (78%).
The following section provides a review and discussion of the similarities and differences of the perceptions between and within groups across the 5-component HELC Model. This discussion is based on the results of the data analysis as presented in the last chapter (Chapter 7).

Between Group Comparisons

For this study, research question 2 is as follows: “Is there a difference in perception of importance within higher education leadership competencies between athletics directors, senior student affairs officers, and chief academic officers?” To review, the null hypotheses for research question 2 were restated to reflect the new 5-component model that emerged from reducing the data collected in this study. These hypotheses are:

2a) Null Hypothesis: There is no significant difference of the perception of importance within Analytical Leadership Competencies between athletics directors, senior student affairs officers, and chief academic officers.

2b) Null Hypothesis: There is no significant difference of the perception of importance within Communication Leadership Competencies between athletics directors, senior student affairs officers, and chief academic officers.

2c) Null Hypothesis: There is no significant difference of the perception of importance within Student Affairs Leadership Competencies between athletics directors, senior student affairs officers, and chief academic officers.
2d) Null Hypothesis: There is no significant difference of the perception of importance within *Behavioral Leadership Competencies* between athletics directors, senior student affairs officers, and chief academic officers.

2e) Null Hypothesis: There is no significant difference of the perception of importance within *External Relations Leadership Competencies* between athletics directors, senior student affairs officers, and chief academic officers.

Based on the structure of the current HELC Model, analysis of the data reveals interesting similarities and differences between groups. Each HELC Model category is presented with a summary of mean factor-weighted Likert scores. From time to time hereinafter, athletics directors, senior student affairs officers, and chief academic officers are referred to as ADs, SSAOs, and CAOs respectively.

**Analytical Leadership Competencies**

For hypothesis 2a, results indicated that both SSAOs and CAOs ranked *Analytical Leadership Competencies* higher than ADs, however there was no difference between SSAOs and CAOs. Table 27 presents mean factor-weighted Likert scores and Table 28 presents a summary of between group differences for analytical leadership competencies.
Table 27. Analytical Leadership Competencies: Mean Factor-Weighted Likert Scores

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Factor-Weighted Likert Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletics Directors</td>
<td>2.49</td>
</tr>
<tr>
<td>Senior Student Affairs Officers</td>
<td>2.70</td>
</tr>
<tr>
<td>Chief Academic Officers</td>
<td>2.69</td>
</tr>
</tbody>
</table>

Table 28. Analytical Leadership Competencies: Between Group Differences

<table>
<thead>
<tr>
<th>Analytical Leadership Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletics Directors &lt; Senior Student Affairs Officers</td>
</tr>
<tr>
<td>Athletics Directors &lt; Chief Academic Officers</td>
</tr>
<tr>
<td>Senior Student Affairs Officers = Athletics Directors</td>
</tr>
</tbody>
</table>

One might conclude that ADs do not find analytical leadership competencies as important as SSAOs and CAOs due to the nature of their responsibilities within the context of higher education organizations. As other authors have documented (Judd, 1995; Karlin, 1995; Nielsen, 1989; Parks et al., 1998), the majority of athletics directors’ responsibilities are less analytical and more operational. In contrast, literature related to SSAOs and CAOs reveals much different job-related roles. Although CAOs and SSAOs are also responsible for operations, they must use analytical skills to evaluate the broader goals of the campus and make decisions based on those goals.

Communication Leadership Competencies

For hypothesis 2b, results of the data analysis reveal no difference between groups regarding the importance of Communication Leadership Competencies for
effective higher education leadership. Overwhelming evidence has been presented in this research that competent leaders must possess effective communication skills, with all three groups supporting this claim. In fact, *Communication Leadership Competencies* was the second highest ranked competency category by all groups combined (2.80). In addition, this research suggests “active” communication could be categorized separately from more “passive” forms of communication. However, more research is necessary to make definitive statements regarding this claim. Table 29 presents mean factor-weighted Likert scores and Table 30 presents a summary of between group differences for communication leadership competencies.

Table 29. Communication Leadership Competencies: Mean Factor-Weighted Likert Scores

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Factor-Weighted Likert Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletics Directors</td>
<td>2.79</td>
</tr>
<tr>
<td>Senior Student Affairs Officers</td>
<td>2.82</td>
</tr>
<tr>
<td>Chief Academic Officers</td>
<td>2.81</td>
</tr>
</tbody>
</table>

Table 30. Communication Leadership Competencies: Between Group Differences

<table>
<thead>
<tr>
<th>Communication Leadership Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletics Directors = Senior Student Affairs Officers</td>
</tr>
<tr>
<td>Athletics Directors = Chief Academic Officers</td>
</tr>
<tr>
<td>Senior Student Affairs Officers = Chief Academic Officers</td>
</tr>
</tbody>
</table>
Student Affairs Leadership Competencies

For hypothesis 2c, SSAOs ranked Student Affairs Leadership Competencies higher than both ADs and CAOs. However, there was no difference between the level of importance of this category between ADs and CAOs. In some ways, this outcome is not surprising, as it is logical and reasonable that senior student affairs officers would believe competencies associated with their own profession are the most important for effective higher education leadership. Table 31 presents mean factor-weighted Likert scores and Table 32 presents a summary of between group differences for student affairs leadership competencies.

Table 31. Student Affairs Leadership Competencies: Mean Factor-Weighted Likert Scores

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Factor-Weighted Likert Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletics Directors</td>
<td>2.62</td>
</tr>
<tr>
<td>Senior Student Affairs Officers</td>
<td>2.98</td>
</tr>
<tr>
<td>Chief Academic Officers</td>
<td>2.70</td>
</tr>
</tbody>
</table>
Table 32. Student Affairs Leadership Competencies: Between Group Differences

<table>
<thead>
<tr>
<th>Student Affairs Leadership Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletics Directors &lt; Senior Student Affairs Officers</td>
</tr>
<tr>
<td>Athletics Directors = Chief Academic Officers</td>
</tr>
<tr>
<td>Chief Academic Officers &lt; Senior Student Affairs Officers</td>
</tr>
</tbody>
</table>

It is surprising, however, that CAOs did not statistically rank this category higher, as many SSAOs report directly to the CAO on college and university campuses. In fact, 24% of SSAOs surveyed for this research stated they report directly to the institution’s chief academic officer. Upon closer analysis of existing literature, the CAO is largely concerned with the academic side of the house from a faculty perspective (teaching and research) rather than a student perspective, which may explain part of this anomaly. Ehrle and Bennett (1988) presented a discussion on relationships important for the CAO to cultivate, manage, and steward. They believed CAOs must work in close coordination with deans, professors, department chairs, the president, and governing boards. Interestingly, their book only sparsely mentions student relations, which is consistent with Ferren and Stanton’s (2004) review of the role of the chief academic officer.

It is equally surprising that athletics directors did not rank Student Affairs Leadership Competencies higher, considering the significant impact students have on the overall operation of athletics departments. A closer look at the competency items listed under this category provides insight on this issue. As mentioned previously, Student Affairs Leadership Competencies is a category that emerged late in the data reduction process. Initially, a 4-factor model appeared to be the best solution. However, upon forcing a 5-factor solution, four student affairs leadership competencies emerged from the
analytical category, while all other competencies remained in the same categories as in the 4-factor model. Upon analysis of the final 5-component HELC Model, it was revealed that the student affairs category is ill-defined, lacking important competencies discussed in the literature that are not represented. Additional research that better defines student affairs leadership competencies might reveal much different results when tested among both athletics directors and chief academic officers.

**Behavioral Leadership Competencies**

For hypothesis 2d, there was no significant difference between groups on how they rated the importance of behavioral leadership. However, all three groups rated this category high when compared to the other categories. Results indicate it is the highest ranking category among the entire group combined (2.87). Table 33 presents mean factor-weighted Likert scores and Table 34 presents a summary of between group differences for behavioral leadership competencies.

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Factor-Weighted Likert Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletics Directors</td>
<td>2.82</td>
</tr>
<tr>
<td>Senior Student Affairs Officers</td>
<td>2.88</td>
</tr>
<tr>
<td>Chief Academic Officers</td>
<td>2.92</td>
</tr>
</tbody>
</table>
Table 34. Behavioral Leadership Competencies: Between Group Differences

<table>
<thead>
<tr>
<th>Behavioral Leadership Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletics Directors = Senior Student Affairs Officers</td>
</tr>
<tr>
<td>Athletics Directors = Chief Academic Officers</td>
</tr>
<tr>
<td>Senior Student Affairs Officers = Chief Academic Officers</td>
</tr>
</tbody>
</table>

External Relations Leadership Competencies

For hypothesis 2e, athletics directors scored significantly higher than both senior student affairs officers and chief academic officers. There was no statistical difference, however, between SSAOs and CAOs. Similar to the student affairs category, results here are not surprising. It is logical that ADs ranked external relations as more important for effective higher education leadership than both SSAOs and CAOs. Intercollegiate athletics is largely an external function, usually operating independently of other units.

Table 35 presents mean factor-weighted Likert scores and Table 36 presents a summary of between group differences for analytical leadership competencies.

Table 35. External Relations Leadership Competencies: Mean Factor-Weighted Likert Scores

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Factor-Weighted Likert Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletics Directors</td>
<td>2.83</td>
</tr>
<tr>
<td>Senior Student Affairs Officers</td>
<td>2.57</td>
</tr>
<tr>
<td>Chief Academic Officers</td>
<td>2.50</td>
</tr>
</tbody>
</table>
Table 36. External Relations Leadership Competencies: Between Group Differences

<table>
<thead>
<tr>
<th>External Relations Leadership Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletics Directors &gt; Senior Student Affairs Officers</td>
</tr>
<tr>
<td>Athletics Directors &gt; Chief Academic Officers</td>
</tr>
<tr>
<td>Senior Student Affairs Officers = Chief Academic Officers</td>
</tr>
</tbody>
</table>

It is also not surprising that CAOs ranked external relations low. The majority of the discussion on CAOs thus far has focused around the concept that the CAO serves the organization as an internal manager. The CAO must navigate the complex organizational structure of academic units, while managing resources, facilities, and personnel, using analytical abilities in an effort to fulfill the mission and goals of the institution. These results raise an important question. It is clear chief academic officers do not find as much value for the external relations function; however, shouldn’t they?

Within Group Comparisons

For this study, research question 3 is as follows: “Is there a difference of perception of importance between higher education leadership competencies within each group (athletics directors, senior student affairs officers, and chief academic officer).” To review, the null hypotheses for research question 3 are:

3a) Null Hypothesis: For the population of athletics directors, there is no significant difference between their perceptions of importance of higher education leadership competencies.
3b) Null Hypothesis: For the population of senior student affairs officers, there is no significant difference between their perceptions of importance of higher education leadership competencies.

3c) Null Hypothesis: For the population of chief academic officers, there is no significant difference between their perceptions of importance of higher education leadership competencies.

To review, standardized scores (z scores) were calculated so that accurate comparisons could be made within groups across each of the dependent variables (leadership competency categories). Standardized z scores were used and calculated by subtracting the mean score on each variable (leadership competency) from each participant's score, divided by the standard deviation. Z scores indicate how many standard deviations a participant's score fell above or below the mean.

Within group data analysis reveals interesting similarities and differences regarding the importance of higher education leadership competencies. Results for each group are presented with a summary of mean factor-weighted Likert z scores used for analysis.

Athletics Directors

As presented in Chapter 7, significant differences exist within athletics directors among the five categories of higher education leadership competencies. ADs believe analytical leadership competencies are equal in importance to student affairs leadership competencies. Behavioral leadership competencies are more important than both student affairs and analytical leadership competencies. Communication leadership competencies are more important than both student affairs and analytical leadership competencies, but
equal in importance to behavioral leadership competencies. And finally, ADs believe external relations leadership competencies are more important than all other leadership competencies. Table 37 presents mean factor-weighted Likert z scores and Table 38 presents a summary of within group differences for athletics directors.

Table 37. Athletics Directors: Mean Factor-Weighted Likert Z Scores

<table>
<thead>
<tr>
<th>Leadership Competency Category</th>
<th>Mean Factor-Weighted Likert Z Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical</td>
<td>-.3390</td>
</tr>
<tr>
<td>Communication</td>
<td>-.0556</td>
</tr>
<tr>
<td>Student Affairs</td>
<td>-.3949</td>
</tr>
<tr>
<td>Behavioral</td>
<td>-.1416</td>
</tr>
<tr>
<td>External Relations</td>
<td>.3103</td>
</tr>
</tbody>
</table>

Table 38. Athletics Directors: Within Group Differences

<table>
<thead>
<tr>
<th>Athletics Directors</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Behavioral = Communication) &gt; (Student Affairs = Analytical)</td>
</tr>
<tr>
<td>External Relations &gt; (Student Affairs = Analytical); (Behavioral = Communication)</td>
</tr>
</tbody>
</table>

It is not surprising that athletics directors believe communication, behavioral, and external relations leadership competencies are considered the most important competencies necessary for effective higher education leadership. ADs work in a highly publicized environment that often conflicts with academic values and the overall mission of the institution (Bok, 2003; Bowne & Levin, 2003; Dowling, 2001; Drain, 1998; Steir, 2006).
Negotiating television contracts and sponsorships, raising funds for new facilities and scholarships, and marketing and promoting events often consumes an athletics director’s job (Karlin, 1995). But in the greater context of academia, analytical and student affairs processes are very important. This might help explain some of the disconnect between athletics and academia on college campuses. External relations is clearly the most significant concern for athletics directors, as was expected. In short, ADs have much different views on what core competencies are most important for effective higher education leadership compared to their academic colleagues.

**Senior Student Affairs Officers**

As presented in Chapter 7, significant differences exist within senior student affairs officers among the five categories of higher education leadership competencies. SSAOs believe behavioral leadership competencies are equal in importance to external relations leadership competencies. Communication leadership competencies are more important than external relations leadership competencies, but equal in importance to behavioral leadership competencies. Analytical leadership competencies are more important than external relations leadership competencies, but equal in importance to behavioral and communication leadership competencies. And finally, student affairs leadership competencies are more important than all other leadership competencies. Table 39 presents mean factor-weighted Likert z scores and Table 40 presents a summary of within group differences for senior student affairs officers.
As expected, senior student affairs officers ranked competencies associated with their own unit as most important. The most surprising outcome is the relatively low ranking of importance of the external relations category. Three out of the five categories – communication, analytical, and student affairs – were ranked significantly higher than the external relations component. The external relations function has grown in important for SSAOs as fundraising, alumni relations, and public affairs have become added responsibilities. SSAOs can no longer only focus on student development and learning outcomes (Woodard et al., 2000).

A closer look at the statements that define the external relations category might help explain why SSAOs ranked this category so low. As previously stated, the external
relations component is ill-defined. Additional research is necessary to identify statements that might better define this category.

**Chief Academic Officers**

Significant differences exist within chief academic officers among the five categories of higher education leadership competencies. CAOs believe student affair leadership competences are equal in importance to external relations leadership competencies. Communication leadership competencies are more important than external relations and student affairs leadership competencies. Behavioral leadership competencies are more important than external relations and student affairs. There is no difference between behavioral, communication, and analytical leadership competencies. And finally, analytical leadership competencies are more important than external relations and student affairs leadership competencies. Table 41 presents mean factor-weighted Likert z scores and Table 42 presents a summary of within group differences for chief academic officers.

<table>
<thead>
<tr>
<th>Leadership Competency Category</th>
<th>Mean Factor-Weighted Likert Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical</td>
<td>.1417</td>
</tr>
<tr>
<td>Communication</td>
<td>.0175</td>
</tr>
<tr>
<td>Student Affairs</td>
<td>-.2067</td>
</tr>
<tr>
<td>Behavioral</td>
<td>.1240</td>
</tr>
<tr>
<td>External Relations</td>
<td>-.2448</td>
</tr>
</tbody>
</table>

Table 41. Chief Academic Officers: Mean Factor-Weighted Likert Z Scores
Interestingly, chief academic officers put a lot of emphasis on the importance of analytical, behavioral, and communication leadership competencies, and less importance on student affairs and external relations. The majority of literature focuses on the CAO as an internal manager (Ehrle & Bennett, 1988; Brown, 1984; Ferren & Stanton, 2004; Mangieri & Arnn, 1991; Martin et al., 1997; Martin & Samels, 1999; Mech, 1997), which might explain why analytical, communication, and behavioral competencies were selected as most important. In fact, there were no significant differences between all three categories.

Conversely, CAOs placed less importance on the categories of external relations, and surprisingly, student affairs. It appears there may be conflicting views between what CAOs believe to be important and what actually matters most. External relations can have a tremendous impact on the success, or failure, of a college president. As previously discussed, the path to the presidency typically goes through the CAOs office. However, results of this research suggest that CAOs might be ill-prepared for the external demands placed on them when assuming the president's office.
Suggestions for Future Research

The comparison of between and within group differences provided an opportunity to analyze the perceptions of each group of executive leaders that populated the sample. This group of leaders was chosen from NCAA Division I institutions. NCAA Division I leaders were chosen because it allowed the researcher to select individuals from similar institutions, both athletically and academically, who have a direct impact on student learning, outcomes, and performance. Ninety-four percent of NCAA Division I institutions are Carnegie Master’s or Doctorate Granting institutions, and over 50% are classified at the Doctoral level. This implies that the institutions selected for the sample frame engage in significant research and are among the most influential and important institutions in the country. Rosenzweig (2001) commented that research institutions “are the most visible of all educational institutions, and, for better or for worse, they are the models that many others in this country and abroad strive to emulate” (p. xiv). For that reason, the senior leaders of these institutions are among the most influential in the country.

Although it has been documented that NCAA Division I institutions are among the best in the country, the United States higher education system contains thousands of institutions with diverse missions and goals. This author suggests expanding the methods employed for the current research to other classifications and categories of higher education institutions. For instance, liberal arts institutions have significantly different missions than Carnegie level master’s and doctoral institutions. Athletics directors of these institutions rarely report to the president and are much more engaged in the academic function of the university. Furthermore, similarities and differences between
public, private and, and for-profit institutions should be analyzed. The for-profit higher education sector has grown tremendously over the last decade. One might find interesting conclusions when comparing competencies necessary for effective leadership between for-profit and not-for-profit higher education institutions. In addition, private not-for-profit institutions operate under a different set of policies compared to their public counterparts. These institutional differences should be considered in more detail within the context of competencies necessary for effective higher education leadership.

In addition to type of institution, the methods employed for the current research should be replicated to include additional senior higher education leaders, stakeholders, faculty and staff, and constituent groups. Recommendations include surveying chief executives, senior vice presidents and vice chancellors, deans, department chairs, and trustees. Faculty, students, parents, alumni, government officials, and others should also be surveyed. Understanding competencies necessary for effective higher education leadership from multiple stakeholder perspectives will help future higher education leaders relate to these various constituent groups more effectively, and ultimately lead to more desirable outcomes.

The analysis and results presented in this study excluded an in depth review of demographic and professional information regarding the sample frame. Time and resources did not allow for this. However, significant data were collected in these sections (Parts I and II of the HELC Survey) that could lead to interesting findings and discussions regarding the profile of current higher education leaders. Between group differences and correlation and regression analyses could be conducted to determine the extent and nature of relationships between and among these variables. Many of the
questions in these sections were taken from existing surveys (Corrigan, 2002; Fisher, Tack, & Wheeler, 1988; Fisher & Koch, 2004; Selingo, 2005; Wolverton & Gmelch, 2002) used for different sample populations. Where appropriate, comparisons could be made between data from the current research and data from previous research. In short, unlimited analysis opportunities exist.

Additional research should be conducted to determine a more precise method for defining effective higher education leadership. In this research, the term “effective leadership” was left to the interpretation of respondents. Future research should be conducted to determine how current higher education leaders define effective leadership in an effort to eliminate this subjective limitation.

Results from between and within group comparisons helped to confirm assumptions that higher education leaders will typically rank competencies more closely associated with their unit as most important for effective higher education leadership. As results of this research found, athletics directors ranked external relations leadership competencies as most important; senior student affairs officers ranked student affairs leadership competencies as most important; and chief academic officers ranked analytical, behavioral, and communication leadership competencies as most important. Therefore, it might be relevant to survey each of these groups individually and ask them to list competencies they believe to be most important in relation to the category they ranked the highest. For example, athletics director could be asked, in an open ended question, to list external relations leadership competencies that they believe are important for effective higher education leadership. Senior student affairs officers could be asked to list student affairs leadership competencies, and so on and so forth.
Collecting qualitative data of this nature will help refine and better define the HELC Model.

Finally, athletics directors have historically been typically excluded from broader university discussions. However, some institutions are working to integrate intercollegiate athletics into the academic mission of the campus (although there has been little success on this front). Suggestions for future research include studies that differentiate between analytical athletics directors (perhaps by identifying ADs with Ph.D.s) and average athletics directors to determine if analytical athletics directors are more effective. On the surface, it is reasonable to conclude that analytical athletics directors would garner more respect and credibility from their academic colleagues. However, studies of this type have not been conducted. If studies show that analytical-oriented athletics directors are more effective, training and development programs could be created to increase an AD’s competence, and ultimately enhance leader effectiveness. However, this idea presents a different question altogether. That is, can analytical competence be taught?
CHAPTER 9

SUMMARY, LIMITATIONS, AND CONCLUSION

Introduction

Higher education is a complex industry. For administrators in leadership positions, successful outcomes are often uncommon and short-lived, in large part due to the influence of an independent workforce, the faculty, concerned with their own specialized self-interests rather than broader organizational interests. Questions regarding the efficiency and effectiveness of the shared governance model of higher education administration, while important, continue to remain unanswered.

From an operational perspective, higher education organizations have failed to keep pace with their for-profit counterparts. The bottom-line focus of business organizations has had a direct impact on improving and refining their operational efficiencies. Conversely, academic institutions have evolved at a glacial pace and have been slow to adopt similar systems and processes. Public funding mechanisms seem to have a significant impact on this phenomenon. Although revenue generation provides an easy method for accounting in the business world, learning and knowledge dissemination is much more difficult to measure. As a result, academic organizations have historically dedicated fewer resources toward improving their own antiquated systems, and more resources upholding traditional academic values and democratic decision-making.
As discussed in Chapter 1, Cohen and March (1986) referred to the shared governance model of leadership as one with “high inertia.” That is “[a]nything that requires a coordinated effort of the organization in order to start is unlikely to be started” (Cohen & March, 1986, p. 207). This explains a significant portion of the inefficiencies that plague higher education institutions. Within the context of leadership, it is logical and reasonable to conclude that a purely coordinated effort with multiple layers of decision makers, as Cohen and March emphasize, will diminish one’s leadership effectiveness. Similarly, Rosenzweig (2001) argued that “[a]ny political system that fails to take into account the way in which its ‘society’ actually operates will surely fail” (p. 112). He believed that the modern university cannot survive without some central legitimate authority, which is certainly not the standard in the higher education industry. Moreover, Rosenzweig lamented that independent, authoritative action is a sure way to be removed from power.

As discussed in the literature review, most higher education leadership research has focused on the institution’s chief executive officer (president, chancellor, etc.), his or her traits and characteristics, and the extent to which the CEO actually makes a difference in the institution (Cohen & March, 1986; Fisher et al., 1988; Fisher & Koch, 1996, 2004; Peck, 1983). Over the last two decades, criticisms have surfaced regarding the narrow focus and lack of empirical rigor of higher education leadership research (Bensimon et al., 1989; Bensimon & Neumann, 1993; Birnbaum, 1992; Green, 1988). Studies conducted on the perspectives of college presidents alone disregard other leadership forces within higher education institutions. Furthermore, existing literature suggests that senior executives below the president actually have a greater impact on student learning,
outcomes, and performance and play a critical role in the overall operation of the institution (Baldridge et al., 1977; Cohen & March, 1986; Dressel, 1981; Land, 2003). Therefore, multiple perspectives should be considered across all levels of the organization to gain a full understanding of leadership within the academy.

In addition to population concerns, context is of equal relevance. Bass (1990) makes this point clear, providing a comprehensive review of the breadth and depth of leadership research in general. Research design is important. This author proposes that studying leadership through a competence frame of reference captures many of the contextual factors related to leadership effectiveness. Identifying core competencies necessary for effective leadership in higher education will help current and future leaders better understand the knowledge, skills, abilities, and attributes that are necessary for success, and to ultimately enhance student learning, outcomes, and performance.

As discussed in Chapter 2, competence describes high performance for the "necessities and conveniences of life" (Mish, 1999). Competencies can be explained in both broad (core competencies) and narrow (sub-competencies) terms (Marrelli et al., 2005; Shippmann et al., 2000). General core competencies are those that are transferable across industries, or are essential for all employees of a specific organization within an industry. Core competencies are usually broad in scope and typically include value statements that reflect organizational culture and climate. Core competencies are often transferable within a specific industry, such as financial services, tourism and hospitality, military organizations, or in the case of the current research, higher education. Sub-competencies are usually more specific to an organization or positions within an organization. For instance, one might research leadership competencies necessary for the
position of dean or for a specific unit, such as fine arts, humanities, or biological sciences. Sub-competencies are typically narrower in focus.

For the purpose of this research, a competency has been defined as an observable performance dimension of knowledge, skill, ability, and/or attribute that results in high performance and/or effective outcomes. David McClelland (1973) pioneered the discussion of the importance of competence versus intelligence and suggested that intelligent testing alone was an insufficient predictor of successful life outcomes. Many authors have expanded on McClelland’s research (Goleman, 1998; Marrelli et al., 2005; Shippmann, 2000; Stanley, 2000). McClelland’s theory of competence provided the impetus for extending Elizabeth McDaniel’s (2002) exploratory research on higher education leadership competencies. McClelland’s theory (1973) combined with McDaniel’s (2002) initial inquiry provided the framework for the current research.

Competency modeling is widely used in business and industry to help identify high performing individuals for both recruitment and retention purposes (Alldredge & Nilan, 2000; Chung-Herrera et al., 2003; Lin et al., 2005; Moilanen, 2002; Morrison, 2000; Rodriguez et al., 2002). However, the higher education industry has been slow to adopt these principles. In fact, McDaniel’s (2002) research is one of the only published research articles on the topic of higher education leadership competencies.

The intent of this research was to begin to address multiple gaps present in higher education leadership research. The current research not only tested the validity and accuracy of McDaniel’s exploratory higher education leadership competency model, it revised and refined it. It also compared between and within group differences of leadership perspectives of athletics directors, senior student affairs officers, and chief
academic officers. These three groups represent academic leaders that have been largely ignored in the higher education leadership research, yet have a significant impact on academic institutions.

Review and Summary of Findings

The purpose of this study was threefold: to extend existing knowledge of McDaniel’s (2002) qualitative inquiry of higher education leadership competencies by testing her theory using quantitative methods; to either affirm or create a new, more refined model of higher education leadership competencies based on the results of the data analysis; and finally, to compare the similarities and differences of important competencies necessary for effective leadership between and within three groups of leaders in higher education: athletics directors, senior student affairs officers, and chief academic officers.

McDaniel’s (2001) model provided a significant step toward identifying and categorizing competencies necessary for effective higher education leadership. However, the HELC Model presented in this study offers a more refined competency model based on empirical data. Five distinct categories of higher education leadership competencies emerged through factor analysis statistical techniques: analytical, communication, student affairs, behavioral, and external relations.

Analytical leadership competencies combine entrepreneurialism, creativity, strategic thinking, and action. The first three items, entrepreneurialism, creativity, and strategic thinking, are used to make systematic, process, and action oriented decisions for the good of the organization. These characteristics are, in many ways, transferable
outside of the higher education industry. Only three of the 16 competencies in this category, “Fosters the development and creativity of learning organizations,” “Demonstrates understanding of academics,” and “Demonstrates understanding of complex issues related to higher education,” are contextual to higher education institutions. Likewise, most of the competencies listed in the entire HELC Model are not industry specific to higher education. In fact, the competency “Demonstrates understanding of academics” was nearly left out of the final model because it did not factor well with most of the solutions tested. In addition, a closer look at the Likert ratings of competencies related to higher education reveals that many of them scored poorly (Appendix VIII). For example, the item “Demonstrates understanding of the U.S. system of higher education” ranked second to last of all 59 competencies with a score of 3.79. A comprehensive list of competencies and their Likert scores from the HELC survey can be found in Appendix VIII.

A grouping of communication leadership competencies also emerged. This implies that higher education leaders should be competent in both oral communication and in writing, and engage multiple perspectives in decision making. Professional presentation is also important, ranking as third most important competency on the Likert Scale for all groups combined (Appendix VIII). Questions remain, however, regarding how and when collaborative forms of communication should be employed in the leadership process. Although committees and shared governance drive the decision-making process on many college and university campuses, results of this research are not clear on where these processes fit within the HELC Model.
A category of behavioral leadership competencies also grouped together. This category is defined by exhibiting lighthearted, unselfish behavior, with a strong focus and interest on the actual people within the organization who contribute to successful organizational outcomes. In short, a leader’s behavior is important, ranking highest among all categories for all groups combined. This is consistent with Collins’ (2001) finding in business and industry regarding what he calls “Level 5 Leadership.” Level 5 Leadership blends “personal humility with intense professional will” (Collins, 2001, p. 21). Collins stated (p. 21):

Level 5 leaders channel their ego needs away from themselves and into the larger goal of building a great company. It’s not that Level 5 leaders have no ego or self-interest. Indeed, they are incredibly ambitious – but their ambition is first and foremost for the institution, not themselves.

Although Collins and his team of researchers were somewhat surprised with their findings, it should be noted that Collins’ work was empirically based. The current research supports the claims made by Fisher et al. (1988), Padilla (2005), Wolverton and Gmelch (2002), and Collins (2001) regarding the importance of unselfish leadership for effective organizational outcomes. There is a clear grouping of variables that define this behavior for effective leadership; however, as stated previously, more research is necessary to more clearly define this category.

Although emerging late in the data reduction process, student affairs leadership competencies were identified as a category in the HELC Model within the final 5-factor solution. These competencies are all associated with student issues, including student needs, trends, and legal consideration. This category is the most ill-defined of all HELC
Model categories, and in need of further refinement. Current student affairs leaders should be surveyed to identify important student affairs leadership competencies necessary for effective higher education leadership.

Finally, external relations competencies were identified as the fifth category of the HELC Model. It is widely recognized that presidents of modern higher education institutions spend a majority of their time on externally related issues. This is largely driven by the intense competition for private funding and multiple stakeholder interests. Likewise, the essence of an athletics director’s position is defined by externally related tasks and responsibilities. Competencies included in this category include relating with various constituent groups, working effectively with media, and understanding advancement and athletics.

Interestingly, the American Council of Education (ACE) Center for Policy Analysis found that 28% of all current college and university presidents surveyed were employed in the capacity of Chief Academic Officer prior to their current presidency (Corrigan, 2002). These same presidents rated fundraising (77%) as the number one issue occupying their time in private institutions and the number two issue (44%) in public institutions (Corrigan, 2002). Furthermore, board relations, community relations, and government relations were also ranked very high. These figures suggest that a large number of newly hired university presidents are not prepared for external relations responsibilities in the greater context of the institution.

As demonstrated throughout the discussion of the content of the HELC Model, results of this research indicate significant between and within group differences among athletics directors, senior student affairs officers, and chief academic officers regarding
the perceptions of importance of competencies necessary for effective higher education leadership. These differences can be explained by the significant variation of responsibilities among athletics directors, senior student affairs officers, and chief academic officers within the greater context of higher education. As expected, groups tended to rank competencies associated with their own jobs higher in importance than competencies less relevant to their jobs. Athletics directors ranked external relations competencies as most important, senior student affairs officers ranked student affairs competencies as most important, and chief academic officers ranked analytical, communication, and behavioral competencies as most important. Questions remain, however, as to whether each group’s perception of important leadership competencies is an accurate indication of what is truly important for effective higher education leadership. More research is necessary from multiple perspectives to precisely define core competencies necessary for effective higher education leadership.

Limitations

This research has certain limitations. The following section details these limitations and their impact on the study.

Survey Limitations in General

This study employed survey methods for data collection. In general, surveys do not allow variables to be properly controlled, as in scientifically controlled experiments (Aldridge & Levine, 2001). Of significant concern with survey research is validity. Although typically reliable, surveys are often weak in validity (Aldridge & Levine, 2001; Babbie, 2004). A common problem associated with survey research is constructing
questions and responses that measure what they truly intend to measure. Methods used to strengthen survey validity for this research include conducting a thorough review of the literature, consulting with subject matter experts regarding content, piloting the survey instrument, and analyzing the psychometric properties of the survey using various statistical techniques. However, social surveys are difficult to validate because they are based on individual perceptions, attitudes, and beliefs. As emphasized throughout this discussion, additional research is necessary to refine and further validate the HELC Survey.

In addition, this survey had certain limitations due to the nature by which it was administered. Based on results of the pilot study, a decision was made to administer the survey online through Survey Monkey. Although Survey Monkey provides a user-friendly method for survey administration, it may have impacted the response rate. Some participants selected for this research may not have received the survey due to spam filters that could have sorted the original message with the survey link to a junk folder. Furthermore, the email address used to generate the cover letter was from a hotmail account (helcsurvey@hotmail.com). In hindsight, a university-generated email account may have been more appropriate and may have potentially increased response rate. Some respondents questioned the legitimacy of the survey by expressing concern via email to the researcher and the researcher’s committee chair. The name of the survey tool itself (Survey Monkey) may have attributed to legitimacy issues.

Social Desirability

Social desirability presents a problem with survey research. Participants tend to "over report their virtuous actions and under-report their vices" (Aldridge & Levine,
2001, p. 103) when they know they are being observed. Further, “Respondents answers are influenced by their desire to be helpful and to live up to their own self-image or to an ideal which they think will look good to the researcher” (Aldridge & Levine, 2001, p. 13). The current research controlled for social desirable responses by asking participants to comment on their own experiences, observations, perceptions, and/or beliefs regarding the importance of competencies necessary for effective leadership in general, rather than make comments on their own personal effectiveness. Although this may have reduced the impact of social desirable responses, individual interpretation of questions and responses was subjective and further limited this research.

Response Rate

The initial desired response rate for this study was 10 responses per scale item, for a total of 590 responses. To achieve this number of responses, a response rate of approximately 60% was needed. In confirmatory factor analysis and structural equation modeling, validity increases with an increase in responses. However, 10 responses per scale item is merely a recommendation. Existing literature suggests a minimum of five responses per scale item is sufficient (Cook & Campbell, 1979; Dillman, 2000), as was achieved in this research.

Non-Response Bias

Respondents tend to give more favorable responses than non-respondents in survey research (Fowler, 2002). Therefore, a low response rate could increase the inherent bias of the survey. Although this research limited non-response bias by sending multiple reminder e-mails to help increase response rate, one way to account for non-response bias is to compare responses from the earliest of respondents to those who
responded later. In addition, one might survey all non-respondents post-hoc and compare their answers to respondents. For the current research, these methods were not feasible due to time and resource constraints.

**Researcher Bias**

The researcher’s interests or concerns, rather than the interests or concerns of the respondents, typically drive survey content (Aldridge & Levine, 2001). In this sense, the closed ended questions of the HELC Inventory forced respondents to rank pre-determined competencies, rather than allowing participants to express themselves in their own words (Aldridge & Levine, 2001). However, two open-ended questions were asked at the end of the HELC Survey that addressed this issue. The first question allowed participants to comment on the three most important competencies they believed were necessary for effective higher education leadership (competencies did not have to be selected from the HELC Inventory). The second question asked participants to comment on what they believed were the most significant challenges facing higher education institutions in the future. Although responses to these questions were not specifically included in the data analysis for this study, future iterations of this research will be able to consider this information.

**Other Limitations**

As is the case for many research projects, constriction of time and resources impacted the methods and outcome of the current research. Institutional history, current political environment, and organizational culture may have also biased responses. There are many confounding variables that were not controlled for in this research that may have impacted the results. Some of these variables include gender, type of institution...
(public versus private), age of respondents, and others. There is also significant variability among the thousands of institutions that make up the U.S. system of higher education. To account for this variability, the sample from the current research was drawn from NCAA Division I institutions. Therefore, inferences from this study are only applicable to the sample frame. In addition, researcher interpretation of the variables used to classify the HELC Model categories was a limitation for this research.

Finally, it would have been beneficial to include an open-ended question at the end of the survey asking for participant feedback regarding the survey questions and responses. This information could have been used to further validate and refine the instrument for future research.

Final Thoughts and Conclusion

Clearly, the current study produced more questions than it did answers. Engaging in leadership research requires the combination of both art and science. Most people agree that effective higher education leadership is difficult to define, and even more difficult to measure. Collaboration, shared governance, and democratic systems shape the current decision-making process within the higher education industry. However, are these processes the most effective form of leadership? Likewise, who benefits most from these processes, students or faculty? Are U.S higher education institutions losing ground in the global market due to their own bureaucratic policies?

These are difficult questions to answer yet becoming increasingly important for modern institutions to consider. If institutions are unwilling to adapt their own systems
and processes to today’s modern, dynamic, and fast-changing environment, failure to compete on a global scale could be imminent.

Most higher education leadership research has failed to consider the perceptions of leaders beyond the president. The athletics director, one of the highest profile administrators at Division I institutions, has been largely ignored within the context of academic leadership. Currently, a significant disconnect exists between the athletic and academic functions on college campuses (Bok, 2003; Bowen & Levin, 2003; Dowling, 2001; Drain, 1998; Steir, 1987). If this disconnect continues to persist, what, then, is the purpose of an institution’s engagement in intercollegiate athletics? Isn’t athletic competition related to the academic mission of the institution? If not, then why do institutions sponsor athletic programs?

To overcome this athletic-academic disconnect, it is the duty of an institution’s president to effectively engage athletics directors in academic discussions that impact the mission of the institution. Athletics directors are among the most highly paid executives on campus, yet among the least understood. They should have full representation in academic discussions in order to have a credible seat at the table. Furthermore, their responsibility for the academic success of student-athletes must be strongly articulated by the chief executive. If presidents fail to send the message that athletics directors have a stake in the academic mission and are critical to the overall success of the institution, then what purpose do athletics units serve on campus? Why do over 72% of athletics directors at NCAA Division I institutions report to the president and over 50% sit on the president’s cabinet if their opinions are not valued?
A similar problem exists among senior student affairs officers. This study revealed that only 66% of senior student affairs officers report directly to the institution’s president, while over 80% serve on the president’s cabinet. However, 24% of senior student affairs officers report to the chief academic officer, suggesting that president’s believe SSAOs should not only have a voice in administrative decisions (as revealed by their seat on the cabinet), but that they should also be closely integrated within the academic function of the organization.

A final thought is in order regarding chief academic officers. This study found a divide between what chief academic officers believe to be important for effective higher education leadership and what president’s report spending the majority of their time on. CAOs ranked external relations leadership competencies lower than any other category. Specifically, they ranked “Demonstrates an understanding of advancement” fifty-fourth and “Demonstrates an understanding of athletics” dead last (fifty-ninth) in importance for effective higher education leadership (Appendix VIII). This is surprising, considering participants for this study were all employed at among some of the highest profile institutions in the country, where fundraising and intercollegiate athletics are big business. As previously discussed, nearly 30% of college and university president’s served in the role of chief academic officer prior to their presidency (Corrigan, 2002). Moreover, president’s ranked fundraising as one of the most time consuming responsibilities of their position (Corrigan, 2002). It appears CAOs need to reconsider their view on the importance of external relations for effective higher education leadership and, perhaps, gain additional training and development in this area.
In conclusion, the composition of higher education organizations has changed dramatically over the last century. What began as an organization led by the president and a few faculty members has evolved to include a complex structure of administrators and executives. Serving as a leader within a higher education institution can be both frustrating and rewarding. Focused research is necessary to fully understand the nuances and distinctions that differentiate higher education leadership from leadership in other industries, and to provide answers to questions that ask whether differences actually exist. One thing is for certain: the leaders of today's higher education institution serve in increasingly important roles. Most importantly, they serve in positions with the ability to have a tremendous impact on students, who are ultimately our nation's future leaders. Academic leaders are, in many ways, the backbone of society. As Fisher and Koch (2004) fittingly stated, "these inspiring individuals are indeed titans, for they have dramatically changed and improved the worlds around them" (p. 144).
APPENDIX I

HELC SURVEY
Part I: PERSONAL INFORMATION

Please respond to the following questions and/or statements about your PERSONAL BACKGROUND.

1. What is your age?
   - _________(Years)

2. What is your gender?
   - Male
   - Female

3. What is your race/ethnicity?
   - Caucasian
   - Black/African-American/Afro-Caribbean
   - Hispanic
   - Asian
   - Native American
   - Multiracial
   - Native Hawaiian/Pacific Islander
   - Other (please specify)___________________

4. How many children do you have?
   - 0
   - 1
   - 2
   - 3
   - 4
   - 5+

5. What age are your children (youngest to oldest)?
   - 1
   - 2
   - 3
   - 4
   - 5
6. What is your marital status?

- Married/Life Partner
- Never Married
- Divorced
- Widowed

7. My spouse/life partner is employed:

- Full Time
- Part Time
- Not Employed

8. My spouse/life partner contributes substantial uncompensated time to my institution related to my job:

- Yes
- No

9. My spouse/life partner attends many major institutional activities such as graduations, athletic contests, and social events related to my job:

- Yes
- No

10. My spouse/life partner is compensated by the institution for his/her contributions related to my job:

- Yes
- No
Part II: PROFESSIONAL INFORMATION

Please respond to the following questions and/or statements about your PROFESSIONAL BACKGROUND.

1. What is your current position?
   - Athletics Director (senior officer in charge of athletics)
   - Senior Student Affairs Officer (senior officer in charge of student affairs)
   - Chief Academic Officer (senior officer in charge of academic affairs)
   - Other (please specify) ___________________

2. How long have you served in your current position (please round to the nearest year)?
   - Year(s)

3. At what type of institution are you currently employed (please select "Yes" to all that apply)?

<table>
<thead>
<tr>
<th>Yes</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>❑</td>
</tr>
<tr>
<td>Private</td>
<td>❑</td>
</tr>
<tr>
<td>Carnegie Classification - Doctorate-granting University</td>
<td>❑</td>
</tr>
<tr>
<td>Carnegie Classification - Master's College and/or University</td>
<td>❑</td>
</tr>
<tr>
<td>Carnegie Classification - Baccalaureate College</td>
<td>❑</td>
</tr>
<tr>
<td>NCAA Division I</td>
<td>❑</td>
</tr>
<tr>
<td>NCAA Division II</td>
<td>❑</td>
</tr>
<tr>
<td>NCAA Division III</td>
<td>❑</td>
</tr>
<tr>
<td>NAIA (any division)</td>
<td>❑</td>
</tr>
</tbody>
</table>

4. To whom do you report to at your current institution?
   - Chief Executive Officer (e.g., president, chancellor, or equivalent)
   - Chief Academic Officer
   - Vice President/Vice Chancellor
   - Vice Provost
   - Dean
   - Other (please specify) ___________________

5. Do you currently serve on the Chief Executive Officer's cabinet?
   - Yes
   - No
6. What position/title did you hold prior to serving in your current position?
   o Position/Title ___________________________

7. How long did you serve in your previous position (please round to the nearest year)?
   o Year(s) ________________________________

8. At how many previous institutions have you held the same position as you currently hold?
   o 0
   o 1
   o 2
   o 3
   o More than 3

9. What is the highest degree you hold?
   o Bachelor's (B.A., B.S., etc.)
   o Master's (M.A., M.S., M.Ed., M.B.A., etc.)
   o Doctorate (Ph.D., Ed.D., etc.)
   o Professional (J.D., M.D., Psy.D., etc.)
   o Both Doctorate and Professional
   o Other (please specify) _____________________

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### Part III: HIGHER EDUCATION LEADERSHIP COMPETENCIES (HELC) INVENTORY

Based on your own experiences, observations, perceptions, and/or beliefs, please rate the following competencies on their level of importance (1 = NOT IMPORTANT; 5 = VERY IMPORTANT) for effective higher education leadership.

<table>
<thead>
<tr>
<th>Competency</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Develops partnerships with multiple constituent groups</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2. Learns from experience</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3. Relates well with governing boards</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4. Applies skills to affect decisions in government contexts</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5. Demonstrates understanding of advancement (e.g., fundraising, development, external relations, alumni relations, etc.)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6. Fosters the development and creativity of learning organizations</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7. Demonstrates understanding of athletics</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8. Demonstrates understanding of technology</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9. Recognizes the values of a sense of humor</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>10. Supports leadership of others</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>11. Encourages professional development</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>12. Presents self well professionally as a leader</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>13. Demonstrates unselfish leadership</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>14. Responds to issues and needs of contemporary students</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>15. Learns from others</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>16. Communicates vision effectively</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>17. Demonstrates the capacity for lifelong learning</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>18. Engages multiple units in decision making</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>19. Demonstrates understanding of academics</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>20. Builds effective teams</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>21. Attentive to emerging trends in higher education</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
1 = Not Important  2  3  4  5 = Very Important

22. Does not take self too seriously

23. Demonstrates courage for educated risk-taking

24. Engages multiple perspectives in decision making

25. Embraces institutional culture

26. Learns from self reflection

27. Demonstrates understanding of finance and budgeting

28. Tolerates ambiguity

29. Sustains productive relationships and networks with colleagues

30. Acts consistent with core values and integrity

31. Applies listening skills to enhance communication in complex situations

32. Communicates effectively

33. Demonstrates inclusiveness in all environments

34. Applies analytical thinking to enhance communication in complex situations

35. Facilitates the change process

36. Demonstrates resourcefulness

37. Demonstrates understanding of student affairs

38. Demonstrates ability to diplomatically engage in controversial issues

39. Demonstrates negotiation skills

40. Leverages institutional resources for maximum benefit

41. Expresses views articulately in multiple forms of communication (oral, written, etc.)

42. Works effectively with media

43. Considers institutional culture in decision making

44. Demonstrates understanding of the U.S. system of higher education

45. Seeks to understand human behavior in multiple contexts

46. Demonstrates understanding of diversity

47. Accurately assesses the costs and benefits of risk-taking

48. Contributes to effective teamwork
49. Demonstrates understanding of planning
50. Understands impact on others
51. Makes decisions consistent with institutional goals
52. Communicates effectively with multiple constituent groups in multiple contexts
53. Demonstrates understanding of legal issues
54. Facilitates effective communication among people with different perspectives
55. Demonstrates understanding of complex issues related to higher education
56. Recognizes aspects of institutional culture
57. Demonstrates understanding of leadership
58. Responds appropriately to change
59. Applies multiple skills to solve problems

Based on your current position as a higher education administrator, what do you believe are the three most important competencies necessary for effective higher education leadership (answers do not need to be taken from previous list)?

1. ____________________________
2. ____________________________
3. ____________________________

Based on your current position as a higher education administrator, what do you believe are the three greatest challenges facing higher education leaders over the next 5 years?

1. ____________________________
2. ____________________________
3. ____________________________

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THANK YOU!

Thank you for taking the time to complete this survey. Please click the "Done" tab to submit your results.
APPENDIX II

OPEN-ENDED QUESTIONS ANALYSIS
Two open-ended exploratory questions were asked at the end of the HELC survey. The purpose of these questions was to identify leadership competencies that were not included in McDaniel’s original model, but may be important. Although an in-depth analysis of the results of these questions is beyond the scope of this research, a brief summary is provided in the following two tables.

The first question asked: “Based on your current position as a higher education administrator, what do you believe are the three most important competencies necessary for effective higher education leadership (answers do not need to be taken from previous list)?” Responses were imported into an Excel spreadsheet and analyzed for repetition using the “find” tool. The following table lists the top five categories of responses to this question.

<table>
<thead>
<tr>
<th>Category</th>
<th># of Hits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Skills</td>
<td>93</td>
</tr>
<tr>
<td>Integrity/Values</td>
<td>71</td>
</tr>
<tr>
<td>Vision</td>
<td>53</td>
</tr>
<tr>
<td>Team Building/Teamwork</td>
<td>46</td>
</tr>
<tr>
<td>Listening skills</td>
<td>28</td>
</tr>
</tbody>
</table>

The second question asked: “Based on your current position as a higher education administrator, what do you believe are the three greatest challenges facing higher education leaders over the next 5 years?” Responses were imported into an Excel
spreadsheet and analyzed for repetition using the “find” tool. The following tables lists the top five categories of responses to this question.

Responses to Exploratory Question 2

<table>
<thead>
<tr>
<th>Category</th>
<th># of Hits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources</td>
<td>283</td>
</tr>
<tr>
<td>Technology</td>
<td>38</td>
</tr>
<tr>
<td>Diversity</td>
<td>34</td>
</tr>
<tr>
<td>Faculty &amp; Staff</td>
<td>30</td>
</tr>
<tr>
<td>Access</td>
<td>25</td>
</tr>
</tbody>
</table>
APPENDIX III

PILOT STUDY: SURVEY & COMMENTS AND FEEDBACK QUESTIONNAIRE

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The 2006 Higher Education
Leadership Competencies Pilot Survey

Directions: This questionnaire is designed to identify important leadership competencies for an effective [VP for student life/provost/athletics director]. The questionnaire is divided into three sections: 1) Personal Information, 2) Professional Information, and 3) the Higher Education Leadership Competency Profile. Please respond to the following questions and/or statements as they pertain to your current position as [VP for student life/provost/athletics director].

Part I

Personal Information

Please respond to the following questions and/or statements about your personal background.

1. Age: ____________

2. Gender:
   □ Male    □ Female

3. Racial/Ethnic Group:
   □ Caucasian
   □ Black/African-American/Afro-Caribbean
   □ Hispanic
   □ Asian
   □ Native America
   □ Multiracial
   □ Native Hawaiian/Pacific Islander
   □ Other

4. Marital status:
   □ Never Married
   □ Divorced
   □ Widowed
   □ Currently Married/Life Partner
5. Children:

<table>
<thead>
<tr>
<th>Number</th>
<th>Ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ 0</td>
<td></td>
</tr>
<tr>
<td>□ 1</td>
<td></td>
</tr>
<tr>
<td>□ 2</td>
<td></td>
</tr>
<tr>
<td>□ 3</td>
<td></td>
</tr>
<tr>
<td>□ 4</td>
<td></td>
</tr>
<tr>
<td>□ 5+</td>
<td></td>
</tr>
</tbody>
</table>

6. My spouse or significant other is employed:

   □ Full Time
   □ Part Time
   □ Not Employed

7. My spouse or significant other contributes substantial uncompensated time to my institution:

   □ Yes    □ No

8. My spouse or significant other attends many major institutional activities such as graduations, athletic contests, and social events:

   □ Yes    □ No

9. My spouse or significant other is compensated by the institution for his/her contributions:

   □ Yes    □ No
The 2006 Higher Education Leadership Competencies Pilot Survey

Part II

Professional Information

Please respond to the following questions and/or statements about your professional background.

1. How long have you served in your current position?

   Years _________________________________

2. At what type of institution are you currently employed?

   □ Public
   □ Private

3. To whom do you report to at your current institution?

   □ Institution Chief Executive Officer (President, Chancellor, etc.)
   □ Institution Vice President/Vice Chancellor (VP/VC of Student Life, VP/VC of Administration, Etc.)
   □ Institution Chief Academic Officer (Provost, Vice President for Academic Affairs, etc.)
   □ Other (Please Explain) _________________________________________________

4. What position did you hold prior to serving in your current position (EDITED FOR EACH POSITION)?

   □ Vice President of Student Life/Athletics Director/Provost at Other Institution
   □ Sr. Associate VP for Student Life/Sr. Associate Athletics Director/Sr. Vice Provost/Associate Provost
   □ Associate VP Student Life/Associate AD/Associate Provost/Dean
   □ Assistant VP Student Life/Assistant AD/Assistant Provost
   □ Other Student Life/Athletics/Academic
   □ Corporate Executive
   □ Government Official
   □ Attorney
5. How many institutions have you served as [VP for student life/provost/athletics director] prior to your current position?
   □ 0
   □ 1
   □ 2
   □ 3
   □ More than 3

6. Was your prior position at your current institution?
   □ Yes   □ No

7. At what age did you first take a position as [VP for student life/provost/athletics director]?
   Age _______________________________________

8. Highest degree held:
   □ Bachelor’s (B.A., B.S., etc.)
   □ Master’s (M.A., M.S., M.Ed., etc.)
   □ Doctorate (Ph.D., Ed.D., etc.)
   □ Professional (J.D., M.D., Psy.D., etc.)
   □ Both Doctoral and Professional
   □ Other
Higher Education Leadership Competency Profile

Please react to the following statements. Your responses should represent your perceptions, attitudes, and beliefs about competencies necessary for effective leadership (list department).

Based on my experience as [vice president for student life/provost/athletics director], I rate the importance of the following competencies for effective leadership in (list department) as follows:

<table>
<thead>
<tr>
<th>Competency</th>
<th>Not Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demonstrates understanding of the complexity and interconnectedness of issues and problems</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. Identifies emerging trends and their potential impact and responds appropriately</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. Responds to emerging trends and their potential impact based on understanding of institutional cultures</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. Recognizes feature of culture and where to find them</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5. Embraces institutional culture</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6. Evaluates strategies and processes for effective action within institution-specific context</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>7. Relates well with members of governing board and accrediting agencies</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>8. Develops partnerships with business, community organizations, and K-12 education</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>9. Sustains productive relationships and networks of colleagues</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>10. Applies skills to affect decision-making processes in state and federal contexts</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>11. Demonstrates understanding of the elements of higher education, including institution types and missions, forms of governance, cultures, and associations.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>12. Works effectively with the media</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>13. Demonstrates understanding of issues of academic administration</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>------------------------------------------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>14.</td>
<td>Demonstrates understanding of issues in technology</td>
<td>1</td>
</tr>
<tr>
<td>15.</td>
<td>Demonstrates understanding of student affairs</td>
<td>1</td>
</tr>
<tr>
<td>16.</td>
<td>Demonstrates understanding of development and institutional</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>advancement</td>
<td>4</td>
</tr>
<tr>
<td>17.</td>
<td>Demonstrates an understanding of athletics</td>
<td>1</td>
</tr>
<tr>
<td>18.</td>
<td>Knows and applies principles of finance and budgeting</td>
<td>1</td>
</tr>
<tr>
<td>19.</td>
<td>Knows and applies language, concepts, and frameworks for planning</td>
<td>1</td>
</tr>
<tr>
<td>20.</td>
<td>Leverages institutional resources for maximum benefit</td>
<td>1</td>
</tr>
<tr>
<td>21.</td>
<td>Fosters the development of learning organizations and their</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>capacity for creativity and change</td>
<td>4</td>
</tr>
<tr>
<td>22.</td>
<td>Demonstrates understanding of legal issues</td>
<td>1</td>
</tr>
<tr>
<td>23.</td>
<td>Demonstrates understanding of issues of diversity</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(gender, ethnicity, handicap, sexual orientation) in national,</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>institutional, and personal contexts</td>
<td>4</td>
</tr>
<tr>
<td>24.</td>
<td>Applies process, political, and public relation skills to crises</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>and conflict as they rise</td>
<td>4</td>
</tr>
<tr>
<td>25.</td>
<td>Demonstrates leadership as service to something other than self</td>
<td>1</td>
</tr>
<tr>
<td>26.</td>
<td>Acts consistent with core values and integrity and in good faith</td>
<td>1</td>
</tr>
<tr>
<td>27.</td>
<td>Demonstrates understanding of leadership and its</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>characteristics, tasks, and contexts</td>
<td>4</td>
</tr>
<tr>
<td>28.</td>
<td>Seeks to understand self and others in social and political roles</td>
<td>1</td>
</tr>
<tr>
<td>29.</td>
<td>Learns from self-reflection</td>
<td>1</td>
</tr>
<tr>
<td>30.</td>
<td>Learns from others</td>
<td>1</td>
</tr>
<tr>
<td>31.</td>
<td>Understands impact on others</td>
<td>1</td>
</tr>
<tr>
<td>32.</td>
<td>Tolerates ambiguity and responds appropriately</td>
<td>1</td>
</tr>
<tr>
<td>33.</td>
<td>Recognizes the value of a sense of humor</td>
<td>1</td>
</tr>
<tr>
<td>34.</td>
<td>Does not take self too seriously</td>
<td>1</td>
</tr>
<tr>
<td>35.</td>
<td>Learns from mistakes as well as successes</td>
<td>1</td>
</tr>
<tr>
<td>36.</td>
<td>Demonstrates skills of negotiation</td>
<td>1</td>
</tr>
<tr>
<td>37.</td>
<td>Makes decisions that are consistent with institutional goals</td>
<td>1</td>
</tr>
<tr>
<td>38.</td>
<td>Demonstrates strategies for inclusiveness in all environments</td>
<td>1</td>
</tr>
</tbody>
</table>
39. Creates and contributes to effective teams
40. Supports the leadership of others
41. Amplifies and refines knowledge over time
42. Knows where to locate information, resources, and people for possible solutions
43. Understands and responds appropriately to the issues and needs of contemporary students
44. Develops human potential and champions continued professional development
45. Responds appropriately to change
46. Facilitates change
47. Includes others in decision making
48. Facilitates effective communication among people with different perspectives
49. Uses listening and observations skills to ask relevant questions in complex situations
50. Communicates effectively with multiple constituencies in diverse settings
51. Expresses views articulately orally and in writing
52. Engages in civil dialogue on controversial issues
53. Articulates and communicates a vision
54. Presents self well as a leader
55. Is passionate about their organization and work
56. Respects and values individuality
57. Demonstrates credibility
58. Demonstrates loyalty to institution
59. Demonstrates loyalty to supervisor
60. Demonstrates loyalty to subordinates
61. In your opinion, please list three of the most important competencies (knowledge, skills, and/or abilities) necessary to be an effective leader in (list department):

1. 

2. 

3. 

62. In your opinion, please list the three greatest challenges for (list department) over the next 5 years:

1. 

2. 

3. 

63. Please provide any additional comments on competencies for effective leadership in (list department) that have not been highlighted in this survey.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
The 2006 Higher Education Leadership Competencies Pilot Survey

COMMENTS AND FEEDBACK QUESTIONNAIRE

Directions: Please provide comments and feedback regarding the survey you recently completed.

1. Were there any QUESTIONS you found CONFUSING? If so, please list the question # and comment below. (Please briefly review the survey to help you answer this question)

2. Were there any ANSWER-SELECTIONS you found CONFUSING? If so, please list the response # and comment below. (Please briefly review the survey to help you answer this question)

3. How LONG did it take you to complete the survey?

□ 0-5 minutes
□ 5-10 minutes
□ 10-15 minutes
□ 15-20 minutes
□ 20 minutes or longer

4. In your opinion, was the survey logical?

□ Yes □ No

Comments

5. Is there anything you would change about the survey instrument (format, instructions, wording, length, etc.)? (Please briefly review the survey to help you answer this question)

Comments
6. Is there anything you would change about the survey content (personal information, professional information, competencies)? (Please briefly review the survey to help you answer this question)

Comments:__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________

7. In general, do you believe PART III asks RELEVANT QUESTIONS related to competencies for effective higher education leadership? (Please briefly review Part III to help you answer this question)

□ Yes □ No

Comments:__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________

8. How would you best prefer to complete this survey?

□ Hard copy through U.S. mail
□ Electronic copy through email and/or web page
□ No preference

THANK YOU FOR YOUR PARTICIPATION IN COMPLETING THIS SURVEY!
APPENDIX IV

PILOT STUDY: COVER LETTER
November 15, 2005

Dear (name here):

I am writing to ask for your help in participating in a pilot of the Higher Education Leadership Competencies survey. The purpose of your participation in this survey is to pretest its content and format in an effort to help refine, validate, and enhance the survey instrument for future research.

You have been selected because of your current and/or previous leadership position in higher education. This survey has been designed for (athletics directors, senior student affairs officers, or chief academic officers); however your leadership experience will help to validate the instrument. You are NOT required to personally identify yourself, and results of this survey will be kept completely confidential. Information will be released only as summaries in which NO individual answers can be identified.

I value your feedback. Upon completing the Higher Education Leadership Competencies survey, please fill out the one-page “Comments and Feedback Questionnaire.” It should take you about 15 to 20 minutes to complete both questionnaires. Please insert the completed questionnaires in the self-addressed stamped envelope included with this packet and drop it in the U.S. mail.

Please be sure to read all instructions carefully prior to answering questions for each section. If possible, please return the questionnaires no later than Wednesday, November 23. Thanks so much for your time and consideration in completing this survey.

Sincerely,

Zachary A. Smith
UNLV Ph.D. Student
Educational Leadership
APPENDIX V

HELC SURVEY: COVER LETTER
EMAIL LETTER TO PARTICIPANTS

Subject Line: PLEASE HELP – Leadership Competencies Survey
Subject Line Follow Up: PH.D. STUDENT – Please Help Complete Leadership Student

Dear XXXX:

I am writing to ask for your help in participating in the Higher Education Leadership Competencies (HELC) survey. You have been selected because of your current administrative position in higher education. For ease of completion this survey is being administered ONLINE and should take no longer than 10 minutes.

You are NOT required to personally identify yourself. Results of this survey will be kept completely confidential. Information will be released only as summaries in which NO individual answers can be identified.

Click on the following link to complete this survey. Be sure to read all instructions carefully prior to answering questions for each section.

Should you prefer to complete this survey through the US MAIL, reply to this email (helcsurvey@hotmail.com) with your name and address and a hard copy will be sent to you.

Thanks so much for your time and consideration in completing this survey.

CLICK HERE TO BEGIN SURVEY.

Sincerely,

Zachary A. Smith
Ph.D. Candidate
Department of Educational Leadership
University of Nevada, Las Vegas

Mimi Wolverton, Ph.D.
Professor
Department of Educational Leadership
University of Nevada, Las Vegas
APPENDIX VI

HELC SURVEY: INFORMED CONSENT FORM
You are invited to participate in a research study. The purpose of this study is to identify competencies (knowledge, skills, and/or abilities) important for effective higher education leadership.

You are being asked to participate in the study because you currently serve as a leader in a higher education institution.

If you volunteer to participate in this study, you will be asked to answer questions that are divided into three sections: 1) Personal Information, 2) Professional Information, and 3) the Higher Education Leadership Competencies (HELC) Inventory. This questionnaire should take no longer than 10 to 15 minutes to complete.

There may be no direct benefits to you as a participant in this study. However, we hope to learn what leaders of higher education institutions believe are important competencies for successful and/or effective outcomes.

There are risks involved in all research studies. You may become uncomfortable when answering some of the following questions. You may refuse to answer questions that make you feel uncomfortable.

If you have any questions or concerns about the study, you may contact Dr. Mimi Wolverton or Zach Smith at 702-895-1432. For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact the UNLV Office for the Protection of Research Subjects at 702-895-2794.

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 the university.

All information gathered in this study will be kept confidential. 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 at least 3 years after completion of the study. After the storage time the information gathered will be kept in a secure location by the researchers indefinitely.

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. I understand that I can print a copy of this form for my records.

1. By clicking on the “I agree” button, I have read the above information and agree to participate in this study.

□ I agree
□ I disagree and would like to exit this survey
APPENDIX VII

HELC SURVEY: INSTRUCTIONS
This survey has been designed to make responding to the items as easy as possible. You can change your responses to the items at any time before clicking on the "Done" button at the end of the survey.

If you are unable to complete the survey but would like to return to it at a later time, you may exit by clicking on the "exit this survey" button on the top right of any page. You may return to the survey by clicking on the link in your email at any time. PLEASE NOTE, YOU MUST USE THE SAME COMPUTER WHEN ACCESSING THE SURVEY FOR FUTURE COMPLETION.

This questionnaire is designed to identify competencies (knowledge, skills, and/or abilities) important for effective higher education leadership. Based on your current position as a higher education administrator, please respond to the following questions.

Once you complete the survey and are satisfied with your responses, click the "Done" button on the last page of the survey.
APPENDIX VIII

LIKERT SCORES FROM HELC SURVEY RESULTS:

ALL GROUPS, ADs, SSAOs, and CAOs
<table>
<thead>
<tr>
<th>Rank</th>
<th>Competency Statement</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
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<td>Acts consistent with core values and integrity</td>
<td>294</td>
<td>3</td>
<td>5</td>
<td>4.8776</td>
<td>0.3768</td>
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<td>5</td>
<td>4.7898</td>
<td>0.4164</td>
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<td>4</td>
<td>Builds effective teams</td>
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<td>3</td>
<td>5</td>
<td>4.7877</td>
<td>0.4192</td>
</tr>
<tr>
<td>5</td>
<td>Supports leadership of others</td>
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<td>3</td>
<td>5</td>
<td>4.7823</td>
<td>0.4033</td>
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<tr>
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<td>Develops partnerships with multiple constituent groups</td>
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<td>4.7627</td>
<td>0.4788</td>
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<td>Communicates vision effectively</td>
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<td>4.7593</td>
<td>0.4361</td>
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<td>Makes decisions consistent with institutional goals</td>
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<td>5</td>
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<td>9</td>
<td>Learns from experience</td>
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<td>5</td>
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<td>Demonstrates unselfish leadership</td>
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<td>5</td>
<td>4.7051</td>
<td>0.5260</td>
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<tr>
<td>11</td>
<td>Expresses views articulately in multiple forms of communication (oral, written, etc.)</td>
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<td>3</td>
<td>5</td>
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<td>Applies listening skills to enhance communication in complex situations</td>
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<td>Communicates effectively with multiple constituent groups in multiple contexts</td>
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<td>Leverages institutional resources for maximum benefit</td>
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<td>Applies multiple skills to solve problems</td>
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<td>5</td>
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<td>Responds appropriately to change</td>
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<td>5</td>
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<td>23</td>
<td>Responds to issues and needs of contemporary students</td>
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<td>3</td>
<td>5</td>
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<td>Encourages professional development</td>
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<td>0.5752</td>
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<td>25</td>
<td>Demonstrates ability to diplomatically engage in controversial issues</td>
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<td>5</td>
<td>4.5272</td>
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<td>Demonstrates negotiation skills</td>
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<td>27</td>
<td>Sustains productive relationships and networks with colleagues</td>
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<td>Engages multiple perspectives in decision making</td>
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<td>5</td>
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<td>Demonstrates resourcefulness</td>
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<td>Demonstrates understanding of planning</td>
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<td>5</td>
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<td>31</td>
<td>Embraces institutional culture</td>
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<td>5</td>
<td>4.5017</td>
<td>0.6220</td>
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<tr>
<td>32</td>
<td>Understands impact on others</td>
<td>293</td>
<td>3</td>
<td>5</td>
<td>4.4983</td>
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</tr>
<tr>
<td>33</td>
<td>Facilitates the change process</td>
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<td>5</td>
<td>4.4660</td>
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<tr>
<td>34</td>
<td>Facilitates effective communication among people with different perspectives</td>
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<td>5</td>
<td>4.4555</td>
<td>0.6271</td>
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<tr>
<td>35</td>
<td>Recognizes aspects of institutional culture</td>
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<td>5</td>
<td>4.4508</td>
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<tr>
<td>36</td>
<td>Considers institutional culture in decision making</td>
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<td>5</td>
<td>4.4471</td>
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<tr>
<td>37</td>
<td>Applies analytical thinking to enhance communication in complex situations</td>
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<td>5</td>
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<td>38</td>
<td>Engages multiple units in decision making</td>
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<td>39</td>
<td>Recognizes the values of a sense of humor</td>
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<td>5</td>
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<td>Learns from self reflection</td>
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<td>Accurately assesses the costs and benefits of risk-taking</td>
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<td>5</td>
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<td>5</td>
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<td>Demonstrates understanding of student affairs</td>
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<td>5</td>
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<td>44</td>
<td>Demonstrates inclusiveness in all environments</td>
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<td>5</td>
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<tr>
<td>45</td>
<td>Relates well with governing boards</td>
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<td>5</td>
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<td>0.6870</td>
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<tr>
<td>46</td>
<td>Does not take self too seriously</td>
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<td>2</td>
<td>5</td>
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<td>47</td>
<td>Demonstrates courage for educated risk-taking</td>
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<td>Demonstrates understanding of complex issues related to higher education</td>
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<td>5</td>
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<td>Demonstrates understanding of advancement (e.g., fundraising, development, external relations, alumni relations, etc.)</td>
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<td>5</td>
<td>4.2780</td>
<td>0.7980</td>
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<tr>
<td>50</td>
<td>Attentive to emerging trends in higher education</td>
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<td>5</td>
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<td>5</td>
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<td>Works effectively with media</td>
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<td>Fosters the development and creativity of learning organizations</td>
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<td>Seeks to understand human behavior in multiple contexts</td>
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<td>Tolerates ambiguity</td>
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<td>Demonstrates understanding of technology</td>
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<td>Min</td>
<td>Max</td>
<td>Mean</td>
<td>Std. Deviation</td>
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<td>5</td>
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<td>Demonstrates unselfish leadership</td>
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<td>5</td>
<td>4.7158</td>
<td>0.5191</td>
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<tr>
<td>10</td>
<td>Demonstrates understanding of advancement (e.g., fundraising, development, external relations, alumni relations, etc.)</td>
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REFERENCES


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Creating and Testing the Higher Education Leadership Competencies (HELC)
Model: A Study of Athletics Directors, Senior Student Affairs Officers, and Chief
Academic Officers

Dissertation Examination Committee:
Chairperson, Mimi Wolverton, Ph.D.
Committee Member, Robert Ackerman, Ed.D.
Committee Member, Mario Martinez, Ph.D.
Graduate Faculty Representative, Alice Corkill, Ph.D.