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Explorations in Leadership Education: The Role of Leadership Education in Higher Education Outcomes

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    There has been much criticism of academic leadership programs for not adequately preparing leaders. This is the case for all of the major programs: business administration, educational leadership, military science, and public administration. However, these evaluations themselves are limited inasmuch as they are typically concerned with such dimension as students' satisfaction and faculty credentials and performance while organizational outcomes attributable to leadership are ignored. The present research investigates the relationship of institutional outcomes for colleges and universities and the presence or absences of presidents with formal leadership training. The outcomes indicators are those contained in the Integrated Postsecondary Educational Data Systems (IPEDS), and include variables such as tuition affordability, graduation rates, availability of student leans, and faculty salaries and benefits. A mixed methodology is used: A quantitative analysis of important IPEDS indicators and a content analysis of interviews with selected presidents. The quantitative analysis employed inferential statistics using a random sample groups of 100 presidents—one with formal leadership education, and a second group of 100 without such education—to determine the relationship- between success and the presidents' credentials. Using IPEDS data, it was found overall that presidents with formal leadership education are no more and no less likely to run successful colleges than their counterparts without such training. When comparing colleges of similar student body size and setting, four-or-more year colleges that employ presidents with no formal leadership education where three times more likely to be successful as compared to colleges that employ presidents with formal leadership education. This trend is reversed among two-to-four year schools. Those schools that employ presidents with formal leadership education were two times more likely to be successful as compared to those without formal leadership education. These data suggest a niche in which presidents with formal leadership education are most successful. The content analysis used interviews of the presidents. Those with formal leadership training, all referred to their education as being important to their responsibilities and all presidents interviewed felt that using IPEDS data in making institutional decisions was important. Implications of the finding form training programs and for future are offered.

DEDICATION

This work is dedicated this to my family, fiends and colleagues, for their support throughout this process. During my doctoral work I have had to sacrifice time with my family and friends; however, they all have supported me with understanding and love.

I specially dedicate this work to my wife Jennifer, and my children; Alex, AJ, and Abby, to my brothers Ken and Sean, and my parents Bill and Gretchen all of whom have left an everlasting mark me. Finally I dedicate this work to my grandfather Russell, the first of now three generations of Dr. McBroom.

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Finally I would like acknowledge and thank my father for all his advice and editing work that he did on my manuscript. Dad, I remember when I was younger and I wanted to be just like you. Well now I am, and I cannot think of another person that I would want to be more like than you.

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CHAPTER 1

STATEMENT OF PROBLEM

Introduction

There is tension between the obvious need for educational leadership and the outcomes of leadership education programs. Arthur Levine's article, *Educating School Leaders* (2005), and a 2007 report by the Southern Regional Education Board (SREB), have strongly criticized all facets of leadership education. These authors criticized educational leadership programs in particular, stating that the preparation was insufficient for the needs of education today and concluding that such programs should be abandoned in their current form. In these reports, Levine and SREB asserted graduate coursework in educational administration did very little to prepare school leaders. In fact, they offered quotes from school leaders themselves to the effect that few required courses were of any help to them in their current positions (Levine, 2005; SREB, 2007).

Criticisms of educational leadership programs have been based typically on evaluations of curriculum, coursework, the quality of students, and the opinions of current students and alumni. No evaluations have made of the obvious needed comparison: Are organizational outcomes better when the chief executive officer (CEO) has formal leadership education than those whose CEOs have no such education?

The research here will undertake precisely this kind of needed comparison. The relationship, if any, of formal leadership education to organizational outcomes will be established by a comparison of CEOs (specifically, college presidents) with and without leadership education.

Problem Statement

Serious concerns exist about the ability of leadership programs to produce competent leaders. Questions have risen recently as to whether these programs are necessary or should be abolished altogether (Elfin, 2002; Levine, 2005; SREB, 2007). Despite these criticisms, there has been little systematic research as to the effectiveness of education on leadership compared to institutional outcomes (Burke & Day, 1986; Leithwood, Lewis, Anderson & Wahlstrom, 2004).

The publication of *A Nation at Risk* in 1983 launched increased scrutiny of public schools and ultimately a reform movement (Murphy, 1991). Early analysis, critiques, suggestions and resulting reform measures dealt primarily with teachers and students (Murphy, 1991). In the mid-1980s, the focus shifted to leadership preparation as an area of reform. Critiques of education reform have included recommendations such as standards-based reform, which is the establishment of challenging standards in the academic disciplines and the alignment of curriculum and instruction (Fuhrman, 1993, Cohen, 1995; Knapp, 1997, Chatterji, 2002).

In a recent publication by the Southern Regional Education Board entitled *Schools Can't Wait: Accelerating the Redesign of University Principal Preparation Programs* (2007), educational leadership programs were strongly criticized. The following problems were identified:

> State leaders have relied on universities to get the job done—with modest state guidance in the form of certification tests, accreditation and program approval, and more recently, school administrator standards. But, as a growing body of research makes clear, many universities are not getting the job done and are in no

particular hurry to redesign their programs to ensure that aspiring principals are thoroughly prepared for their role in improving curriculum, instruction and student achievement (p. 3).

SREB also contended that the needs and concerns of educational leaders and, in particular, the preparation programs of these critical leadership positions in America were inadequate in their present form (SREB, 2007).

Programs were criticized for a number of deficiencies, including:

1. A lack of collaboration between universities and school districts.

2. Failure to create a curriculum that develops the leadership skill necessary to increase student achievement.

3. Poor planning, supervision, and evaluation of field experiences.

4. A lack of rigorous evaluation strategies for continuously monitoring and measuring program quality and effectiveness. (p. 6).

Rather than program redesign, SREB argued that faculty in leadership programs have been more concerned with the following:

1. The determination of which existing course can be used as evidence of meeting standards.

2. The rights of faculty to choose course content.

3. The number of hours of internship.

4. The potential loss of enrollment and decreases in revenue production due to more stringent selection and admission procedures (p. 6).

Leadership is in question, not only in public education, but also in all aspects of American organizational functioning. David Gergen, a professor of public administration

at Harvard's John F. Kennedy School of Government and Director of its Center for

Public Leadership (2006), offered:

> As Americans survey a landscape that seems uncommonly bleak, a new national
>
> survey commissioned for this issue of *U.S. News and World Report* found that
>
> two thirds of the public believes the nation is in a leadership crisis, while nearly
>
> three quarters worry that unless we find better leaders soon, the nation will begin
>
> to decline. Some 9 of every 10 people say political leaders today spend too much
>
> time attacking rivals, while 8 of 10 believe that corporate leaders are more
>
> concerned with making money than with running their companies well (p. 23).

While leadership is important, it may not be a result of training or education. This

suspicion is seen in criticisms of leadership education programs (Elfin, 2002; Levine,

2005; SREB, 2007). It is argued that those who design and implement such programs

need to make changes based on knowledge of the value that education has on

organizational outcomes (Leithwood et al., 2004).

Leadership is a key issue for improved performance across many operations, and

attention is increasingly turning toward outcomes (Ball, 2007). How successful

leadership education is best measured has been the subject of much debate in the last 20

years (Burke & Day, 1986; Leithwood et al., 2004).

Reviews of leadership and managerial education emphasize that little is known

about which (if any) processes contribute to organizational performance. At least one

reason for this lack of knowledge is the scarcity of meaningful and rigorous research

(Fiedler, 1996). The sole evaluation in most leadership education too often consists of no

more than asking trainees how they liked the program and whether or not students thought they learned something (Saari et al., 1988; Leithwood et al., 2004; SREB, 2007).

In a systematic evaluation of research using meta-analysis of 70 different management education studies, Burke and Day (1986) found very few existing education evaluations could document the extent to which education contributed to organizational outcomes. In a similar review of literature about leadership effectiveness, Leithwood et al. (2004) discovered that evaluations of leadership preparation programs lacked any link to institutional outcomes. Without rigorous analysis of quantitative data, there is no justification for Levine's (2005) suggestion to "scrap" these programs (p. 7).

Additionally, leadership education has been confused by examining leadership styles. That is, it has been shown that multiple leadership styles such as situational leadership, transformational leadership, and charismatic leadership all increase the job satisfaction of subordinates and decreases their absenteeism (Fiedler, 1996; Cicero & Pierro, 2007; Barling, Weber & Kelloway, 1996).

Educational leadership programs are not the only university-level programs geared to training leaders. Formal leadership education occurs in many academic areas. There are four primary areas that have been traditionally defined for academic study leaders: the military, public administration, business administration and educational leadership (Edfelt, 1988). All of these programs share similar histories, similar curricula, and have received similar criticisms (Levine, 2004; Edfelt, 1988, Ventriss, 1991; SREB, 2007; Hess & Kelly, 2005). A detailed comparison of these programs is made in Chapter Two.

Research Question

The overarching research question can be stated thus: Is there a correlation between successful outcomes for college and university and the presence or absence of formal leadership education among college and university presidents? A mixed methodology will be used: First, a quantitative method will identify the distribution of presidents with formal leadership education in colleges and universities. Further identify colleges and universities that are successful. Next, determine whether there is a correlation between organizational success and leadership education.

A content analysis was then performed. For this qualitative analysis, a select number of leaders who have had formal leadership education were identified and interviewed to determine how important their leadership education was for their current positions. Finally, interviews with leaders who have *no* formal leadership education will indicate what they found to be helpful in their positions. Given this comprehensive approach, the research sub-questions are:

1. What is the distribution of leaders with formal leadership education in colleges and universities across Carnegie classifications?

2. What is the relationship between formal leadership education and various indicators of success such as enrollments, program completion, graduation rates, faculty and staff finances, school financial data, and student financial aid?

3. Are there differences between those leaders who have and have not had a formal leadership education and are and are not successful on the following dimensions?

      i.   Within each group what were the most successful outcomes versus the

           least successful?

     ii.   How do individual leadership situations, such as degree type and Carnegie

           classification, compare to indicators of success?

4. Do leaders believe that formal leadership education prepares them for

   understanding and enhancing indicators of success such as graduation rates,

   faculty salaries, scholarship monies and/financial aid, and school finances?

5. Finally, what do leaders find valuable in their education or experiences (for

   example, do they site any leadership training?)

Purpose of the Study

To date, no research has systematically examined the relationship between of

formal leadership education and organizational outcomes. What is needed is a

comparison of organizational well-being between institutions where leaders have formal

leadership education and those where they do not. This comparison of institutional

outcomes between leaders with and without formal leadership education, which holds the

promise of considerable importance for academic programs, is the subject of this

proposed research.

Significance of the Study

The need for leadership education can be seen in the sheer numbers of leadership

preparation programs, and of those businesses and other institutions that face the loss of

leaders due to retirement (AACC, 2001; Shults, 2001). In spite of this importance,

leadership education programs have been criticized for poor preparation of leaders

(Levine, 2005; Hess & Kelly, 2005; SREB, 2007)

Task forces have been formed by the American Association of Community

Colleges (AACC) to identify, train and place leaders in higher education (2001). The

literature focuses on community colleges, because they are more likely to lose promising

leaders to more prestigious positions in postsecondary education (Shults, 2001). There is

also a clear demographic component of the leadership in colleges: leaders of the baby-

boom generation are approaching retirement *en masse*. This makes the need for

leadership education and preparation programs urgent, as there will soon be many

positions to fill (AACC, 2005).

Despite detractors of leadership programs, there has been an increase in the

number of programs and degrees awarded. Baker, Orr, and Young (2007) investigated the

distribution and number of new leadership programs over a ten-year period. They found

that graduate degree-granting programs in education leadership increased by 16% from

1993 to 2003, and that there was a 90% increase in masters degrees in that same period

(Baker et al., 2007). Despite enormous program growth and much criticism, there is

surprisingly little research on whether an administrator with leadership education affects

the outcomes of an organization as compared to those leaders who have none. The

research proposed here will be significant because it will be the first systematic

investigation into this area of inquiry.

If there is a positive correlation between leadership education and organizational

outcomes, then these results would suggest leadership programs make a difference, and

only then does it make sense to modify programs in light of outcomes. If there is no

correlation, then it suggests that Levine and other critics may be correct. Additionally, if

there is one type of leadership education that is better than another, (e.g., if presidents

with MBAs do better than presidents with educational leadership degrees), then that

leadership program could be used as a model by others. This could include modeling

class sizes, style of programs such as cohort programs etc.

Limitations and Delimitations of the Study

This sample will consist of colleges and universities corresponding to Carnegie

classification. Thus generalization will be limited to those of comparable classifications.

Also, this research examined leaders only in postsecondary settings and cannot be

generalized to government or businesses. Finally, this study examined leaders with

education from business, public administration and educational leadership; other

leadership education may yield different results.

Indicators of success are difficult to determine. They can differ from individual to

individual to even institution to institution. Because of this, this study is limited to

indicators of success used in IPEDS and by *U.S. News and World Report.* Therefore, the

study is only generalizable to the indicators of success as mentioned above. Other

indicators of success may give different results.

Finally, there are other important factors that make leaders better, such as

experiences, mentors, and materials. This study is limited to only formal academic

leadership education and any experiences of the leaders discussed from the interviews.

Other experiences, mentors or materials not mentioned in the interview will not be

considered. Tracking and understanding these experiences may give different results.

Definitions of Terms

For the purposes of this study, the following terms will apply:

Formal Leadership Education. Following Edfelt (1988), a school will be considered to have a leader with formal leadership education if he/she has an advanced degree in any of the following areas: Educational Leadership, Education Administration, Business Leadership, and/or Public Administration. Additionally, any degree (undergraduate or graduate) in Military Science will be considered formal leadership training.

Leadership Training. Although the differences between education and training are often difficult to distinguish, for the purpose of this study training will be defined as courses, seminars, programs, etc. that are attended for leadership enhancement but do not award a formal degree, and are designed to gain skill (Kurtus, 1999).

Graduation Rates. Graduation rates will be defined as the number of students completing their program within a time period equal to one and a half times the normal period of time to graduate (NCES, 2007). It is assumed that the higher the graduation rate, the more successful the school.

Financial Aid. Financial aid data will be for full-time, first-time degree- and certificate-seeking undergraduate students. These data include federal grants, state and local government grants, institutional grants and loans. These data will describe the number of students receiving each type of financial assistance and the average amount received by type (NCES, 2007). Schools with higher average financial aid awarded to student will be considered more successful.

Degree Completions. Degree completion data are collected for award levels ranging from postsecondary certificates of less than one year to doctoral degrees. These

data include demographic information on race/ethnicity, gender of recipient and field of study (NCES, 2007). The more degree completions, the more successful the school.

Faculty Salaries. This is defined as average full-time faculty salaries. This will be based on faculty rank, gender, and length of contract, and will include fringe benefit information (NCES, 2007). The higher the faculty salary, the more successful the school.

School Finance. These data will be used to describe the financial condition of postsecondary educational institutions. The specific data elements include revenue by source (for example, tuition and fees, grants and contracts, and private gifts). These data also include expenses by function (for example, total expenses including those for instruction, research academic support, physical plant assets and debt, and endowment investments) (NCES, 2007). The greater the finances, the more successful the school.

Chapter Summary

This chapter provided an introduction to the importance of leadership and the need for evaluating how formal leadership affects outcomes of institutions. All aspects of leadership education have been criticized in the literature; despite these criticisms it is important to understand the effectiveness of leadership education. Current program evaluations are inadequate and provide insight into this matter.

The purpose of the study undertaken here was to determine how, if at all, leaders with formal education were associated with successful outcomes of colleges and universities as measured by statistical data from IPEDS. Additionally, this study examined the importance that presidents interviewed felt their education was in understanding indicators of success for their institutions.

This study is significant because the number of programs makes the information of outcomes of graduates of considerable importance. However, there is little understanding of how education and training of leaders relate to institutional success. This study systematically examined that relationship. Without this kind of study, criticisms of leadership programs have been premature.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

In order to understand whether leadership education influences organizational outcomes of postsecondary educational institutions, a review of the relevant literature is made. First, a review of the literature of leadership and institutional outcomes is made. Then, a review of short courses in leadership training is made. Next, the four main types of leadership programs are considered; that is military leadership, public administration, business administration, and educational leadership. An historical overview, current curricula, criticisms and recommendations from those criticism are presented for each of the four types. Then comparisons are offered among these programs. Finally, current indicators of success for colleges and universities are addressed.

Despite the development of leadership programs and associated research, there is little information about what makes leaders successful. Fiedler (1996) offered that little was known about leadership and that leadership theories and research lacked focus. Also, what has traditionally been taught in leadership programs will be reviewed in order to better understand how it is associated with institutional success. What follows suggests there are substantial similarities in leadership programs from their beginnings to their current curricula (Felbinger, Holzer & White, 1999; Liberatore & Nydick, 1999; Levine, 2005; Hess & Kelly, 2005; SREB, 2007).

Leadership and Institutional Outcomes

How does leadership education affect institutional outcomes? There is evidence that effective leadership is the most important factor in institutional success. Zand (1996),

Professor of Management and Organizational Behavior at the Stern School of Business in

New York, explained that organizations need leadership on all levels. Leaders determine

markets, make long-term decisions, and devise comprehensive strategic decisions (Zand,

1996). Top leaders' decisions are so important that they have "long-lasting affects on

employee well-being and on the firm's performance" (Zand, 1996, p. 4).

There are many studies that link leadership to employee performance. An

example is a study by Blase and Blase (1999) who examined the school principals'

influence on faculty performance. This study is qualitative in nature, consisting of

interviews of graduates in leadership programs. Blase and Blase (1999) interviewed 12

principals and teachers and found that principals who spend more time discussing the

schools' mission with faculty are perceived as better leaders.

In order to ascertain effective leadership, leadership styles have often been

examined to determine their effects on outcomes. Leaders' behavior can affect the

outcomes of their followers (Vroom & Jago, 2007). One of the problems in

understanding leadership stems from the fact that leadership, despite its popularity, is not

a scientific term with a formal standardized definition that is, there are many definitions

in the literature for leadership, some of which differ substantially. (Vroom & Jago, 2007).

Basic Leadership

History is rife with examples of brilliant military leaders winning stunning battles

against superior forces it is also the case that CEOs have turned around failing businesses

(Fiedler, 1996). Kaplan et al. (1994) discussed leadership styles that affect the success of

manufacturing firms. The author found that senior managers need to deemphasize the

focus on simple, aggregate, and short-term financial measures and to develop indicators

that are more consistent with long-term competitiveness. Those managers who do, such as in Japanese firms, have successful businesses (Kaplin, 1983).

The research of Katz and Kahn (1966) focused on leadership occurring in organizational settings. They identify three types of leadership behavior. The first type focuses on the introduction of structural change or policy formulation. The second type involves examining an existing institution, to determine any incompleteness of formal structure. The third leadership behavior is the use of formal structure in order to keep the organization in motion and in effective operation or administration (Katz & Kahn, 1966).

Katz and Kahn also described behaviors that are related to the functions of the organization. These behaviors are thought not only to affect the direction of the organization, but also that of the members. Indeed, they stated that "the effectiveness of any act of leadership must be assessed in terms of some specific criterion of organizational functioning"(p. 98).

Katz and Kahn also discussed personnel and the leaders' effects on other members of the organization (p. 101). They caution it is important to recognize the temporal component to leadership (p. 101). For short-term effects, harshness and threats may produce compliance of members of the organization; in the long run, the major effect may be an organizational inability to maintain morale and even to keep qualified and proficient staff (p. 101). This is redolent of Fiedler's (1996) statement on how leaders treat subordinates: i.e., leaders are judged by how they treat their subordinates, and treating them poorly does not produce effective leadership (p. 245).

Etzioni, in *A Comparative Analysis of Complex Organization,*(1971) defined leadership as power based predominantly on personal characteristics, usually normative

in nature. He stated that an effective leader in various companies will spend a great deal of time in supervision of subordinates and staff (Etzioni, 1971). For example, he found that 75% of leaders in sections of companies that have high productivity spend 50% or more of their time in a supervisory role (p. 32). In contrast, 59% of leaders in the same companies' low-productivity sections spend less than 50% of their time in supervisory roles (p. 32).

Fiedler (1996) wrote that leadership research before 1945 was primarily concerned with identifying traits, behaviors and personality patterns that would differentiate leaders from non-leaders. He explained several things that research has shown in the last sixty years that are of primary importance in leadership knowledge. These are listed below (Fiedler, 1996):

1. *Emergent Leadership*: There is no evidence for a specific leadership trait behavior or a leader personality. Group members who are "visible" and have abilities, skills or resources that would assist the group in reaching its goal are likely to be chosen or accepted as leaders.

2. *Leader effectiveness*: The ability to get a group to accomplish its mission depends on not just the leader's abilities and attributes, but also on how well the leader's personality, abilities and behaviors match the situation in which the leader operates. Carefully conducted research on assessment centers has been reasonably accurate in identifying those who later become successful leaders in organizations.

3. *Stress and control over group process and outcome:* The primary significance of the leadership situation is that it has a different effect on the behavior and

performance of different types of leaders. The critical factor seems to be how the situation affects the leader's feeling of being in control, and whether the leader experiences stress and uncertainty in how to deal with the group and the task.

4. *Leader behaviors*: Two major types of behavior have been identified by which leaders are evaluated by others. One is whether leaders treat their subordinates well or poorly, using such dimensions as considerate, socioemotional and employee-centered behaviors. The other indicates the degree to which leaders structure the roles and working relationships of their subordinates, typically called structuring, task-oriented, or job-centered behaviors. These behaviors or attitudes do not predict effective leadership performance.

5. *Charismatic leaders*: These are leaders who are totally committed to their particular vision and course of action, who have unshakable faith in the rightness of their mission and their eventual success, and who have the ability to communicate this to their followers. Charismatic leaders may or may not be effective in achieving the organization's goals, but their followers are blindly obedient and unquestioningly loyal.

6. *Gender and race differences:* Other things being equal, men and women and those of different racial and ethnic backgrounds are equally effective as leaders.

7. *Attributed abilities, skill and motivation:* The motivation and abilities attributed by leaders and followers to one another determine in part how the

leader and subordinates deal with each other and how this affects leader and

subordinate behavior.

It is apparent that leadership affects outcomes (Katz & Kahn, 1966; Etzioni, 1971;

Fiedler, 1996). However, there is little known as to why one leader is better than another

or even if leaders can be trained or educated (Fiedler, 1996). In order to address this

question, a large sector of current leadership research focuses on leadership styles.

Leadership Styles Affecting Outcomes

Leadership styles are commonly studied and shown to correlate to outcomes such

as absenteeism and subordinate satisfaction (Barling et al., 1996; Zhu et al., 2006;

Hersey, 2003). The study of leadership styles also has been used to understand how

leadership affects outcomes (Fiedler, 1996).

The theory of transformational leadership, which was first outlined by Burns

(1978), has attracted considerable attention for leadership researchers. According to Bass

(1985), transformational leaders are those who elicit superior performance or

performance beyond normal expectations from subordinates. Such leaders become role

models for their subordinates and provide both vision and a sense of mission to the group

(Barling et al., 1996). Evidence of the positive effects of transformational leadership,

both on subordinate outcomes and organizational outcomes regarding subordinate goals,

is well-documented and these include improvement in subordinate satisfaction, increased

subordinate commitment to the organization, and enhanced satisfaction with the job

(Barling et al., 1996; Bass & Avolio, 1990; Tickle, Brownlee & Nialon, 2005).

In a recent study by Zhu et al. (2006), 170 firms in Singapore were tested to see

how CEO transformational leadership affected human capital and organizational

outcomes. Human resource management and transformational leadership were found to be linked to subjective outcomes such as job satisfaction. Another finding was that transformational leadership style is associated with lower absenteeism (Zhu et al., 2006).

Situational leadership has been used to train leaders. This method of training helps future leaders understand how to engage their subordinates (Hersey, 2003). Students learn how to increase their skill to select effective leadership strategies that can be used to increase the group's productivity, and they develop specific skills that assist them in identifying the performance needs of subordinates. This training has been somewhat successful (Fiedler, 1996), and is currently being used for training leaders in the U.S. Department of Transportation and military (Yeakey, 2002).

Situational leadership styles have been studied and used as a predictor of productivity . Research conducted by Silverthorne and Wang (2001) investigated the impact of leadership styles on the productivity of Taiwanese business organizations. They studied 79 managers and 234 subordinates, and found that under those leaders who had a situational leadership style, absenteeism and turnover rates decreased, while profitability and quality of work increased. They concluded that situational leadership appears to have merit in businesses (Silverthorne & Wang, 2001). However, as with the study and the ones discussed above, these studies tended to be qualitative in nature, and had little quantitative nature.

In an important report, *Review of Research How Leadership Influences Student Learning* (Leithwood et al., 2004), current research was reviewed. It was found that successful leadership can play a significant role in improving student learning. There were three successful traits that successful leaders employed (Leithwood et al., 2004).

The first is *setting direction*. They suggested that setting direction accounts for the largest portion of the leader's impact in the school. This direction is aimed at helping colleagues develop shared understanding about the purpose and mission of the school (Leithwood et al., 2004). This can be compared with Kouzes and Posner's (1988) "shared vision."

The second trait of successful leadership is *developing people*. This includes positively influencing and directing the experiences of subordinates. Such experiences include offering intellectual stimulation, providing individualized support and giving models of best practices (Leithwood et al., 2004).

The final trait of successful leaders is *redesigning organizations*. This includes modifying school organizational structure, and building collaborative processes. All of these should be done to improve the schools and to promote learning (Leithwood et al., 2004).

It is apparent from these studies that leadership, indeed even the style of leadership, affects the outcomes of institutions. It is apparent that different styles affect the same outcomes such as absenteeism and employee satisfaction (Silverthorne & Wang, 2001; Barling et al., 1996; Zhu e al., 2006). Although leadership style does affect institutional outcomes, the question remains as to *what* is taught to students in order to make them effective future leaders.

<center>Nature of Leadership Education</center>

Leadership training/education has been taught for more than half a century. The United States and other complex industrialized societies have devoted considerable energy and resources to the identification, education, and placing of leaders in positions where they are needed (Gillette, 1916; Finletter, 1958; Edfelt, 1988). Perhaps the single

most concerted effort in the U.S. was during the Second World War, when total military

personnel grew from less than one million in 1941 to approximately twelve million by

1945 (Robinette, 1954). Leaders were clearly needed in the face of this phenomenal

expansion. It did not take long for the idea of training leaders to become a highly

accepted process in business, politics, education and other spheres (Edfelt, 1988).

In the United States, several kinds of institutions have traditionally been involved

in supplying postsecondary formal education for management leadership, including

educational leadership, public administration programs, university business schools and

military officer development (Edfelt, 1988).

As intuitively appealing as the idea of training leaders "on demand" was, it did

not take long to discover that things were not quite this straightforward (Gillette, 1916;

Zeleny, 1944; Brody, Brooks & Bunnell, 1954; Edfelt, 1988). The education did not

always work as intended. Zander (1944) showed that through education, students could

become better leaders in class discussion. However, how well the student did at leading

the group depended more upon the student than on the education. In order to address this

type of problem, leadership programs have not only been redesigned, but their

effectiveness continues to be evaluated.

Public administration, business administration and educational leadership

programs have all been criticized for their preparation aspect (Ventriss, 1991; Edfelt,

1988; Levine, 2005; SREB, 2007; Kleber, 1978). These programs are designed to prepare

leaders for management positions. Together they produce far more masters and

doctorates than any other single graduate program in administration (Baker et al., 2007).

Leadership programs are clearly important and have been taught in colleges and universities since the beginning of the 20th century. However, there are multiple ways in which leaders are trained. These are typically formal education with a graduate degree, or short courses or seminars. For college and university presidents there are two identifiable paths. One is a multitude of short courses offered by leadership institutes that target aspiring administrators (Anderson, 2007). The other is the formal education found in military leadership, public administration, business administration, and educational leadership (Edfelt 1988). At least some of the short courses seem to be tailored to the needs and interests of faculty members interested in leaving the classroom for administration. Obviously, leaders with advanced degrees such as business administration, public administration or educational leadership may also take some of these shorter courses in leadership training.

Short Courses in Leadership Training

Most of the training that is targeted for presidents of higher education is organized for community college presidents and CEOs (Anderson, 2007). Courses for college administrators typically consist of teaching and discussing institutional effectiveness, and working with and serving diversified populations. It is thought that college leaders must have an understanding of management decision-making processes, and must avoid tunnel vision that can result from limited experience. Leaders do not learn such skills from a textbook alone, but in combination with practice and experience. One of the ways that college leaders gain these skills is through programs and institutions designed specifically to enhance leadership (Anderson, 2007).

These classes focus on aspiring administrators, and are often sponsored by the American Association of Community Colleges (AACC), which is an association that collects statistics and facts about community colleges across the nation (AACC, 2007). Two such sponsored courses include the "New CEO Institute," which focuses on how to "survive" the job of college president; another, "Future Leaders Institute Advanced," is designed for senior-level administrators who are on a direct path to college presidency. The latter course focuses on networking with experienced college presidents and how to interview well. Additionally, the American Council on Education (ACE) offers fellows programs where an administrator will visit another campus to be mentored by that campuses president (ACE, 2008).

AACC has catalogued a representation of short-term, noncredit leadership development programs on their website (www.ccleadership.org, 2007). Details of 44 separate programs are provided. Some of these programs are sponsored by the state, some by colleges, and others by professional associations such as the Kellogg Foundation and the highly prestigious Harvard institutes for Higher Education Management Development Program (Wallin, 2006).

Wallin (2006) examined these short-term programs and found that very few were explicit about what they hoped to accomplish, why the topics covered in the program were being taught, or how applicable the material being taught was. Programs tended to use established mentors as instructors. They also devoted a great deal of time to interviewing skills and career planning as apposed to developing actual leadership skills (Wallin, 2006).

Wallin (2006) then made a qualitative examination of what was being taught in these programs. Wallin interviewed seven participants to determine if what they learned was valuable. The author found that participants thought the programs were not adequate. Wallin recommended that the programs should focus on job performance skills, such as finance and budgeting, effective team building and stress management techniques (Wallin, 2006).

In summation, there are a great many short programs in leadership usually sponsored by institutions such as ACE and AACC which is focused on community college leaders (Anderson, 1997; www.ccleadership.org, 2007; ACE, 2008). These programs have been criticized for not being focused or accomplishing the goals of the training, or having effective evaluations (Wallin, 2006).

Military Leadership

While not specifically designed to train leaders in higher education, considerable resources are involved in another type of leadership education, that is the military. To examine in detail all types of military training, that of the Army, Navy, Air Force, and Marines, is beyond the scope of this review. This being said, there are some obvious similarities among them in form and content (Yeakey, 2002). To Facilitate the exposition, this section focuses on the senior service—the United States Army.

Most leadership education in the military comes in the form of officer training (Kleber, 1978). This training can be divided into two phases, pre-commission and post-commission. The former includes the Reserve Officer Training Corps, which provides for the training of officers in reserve. The training is relatively short, and focused on issues of practicality, such as logistics and battle field strategy (FM6 22, 2006). The post-

commission phase of officer training includes the service schools such as the officers basic course, and more advanced courses such as US Army Command, the General Staff College, and the U.S. Army War College.

The Army trains and educates its officers in many different ways (Neiberg, 2000). Two traditional methods of officer training are Reserve Officer Training Corps (ROTC) and West Point, The United States Military Academy (Neiberg, 2000). According to Neiberg (2000), ROTC programs produce approximately two-thirds of officers in the Army. Given this preponderance, the review of Military leadership education offered here will focus exclusively on the ROTC program.

History of Military Leadership

On 4 July 1776, the Declaration of Independence formally signaled America's separation from British rule and asserted her right as an independent participant in dealings with other sovereign nations. Adopted by Congress in March of 1787, the U.S. Constitution formally established the basic functions of our democratic government including the formation of an army (The Department of Defense FM-22, 2006). America's need to have professionally trained officers was met by the establishment of the first military college in the early 19th century (Lyons & Masland, 1959).

Jefferson believed that the United States needed an army and that its army should have intelligent, well-educated officers. The United States Military Academy opened its doors in 1802. The Academy produced well-trained officers; however, these were not in sufficient numbers during time of war, particularly during the American Civil War (Lyons & Masland, 1959). In order to meet the need of more trained officers, universities and colleges in a loose partnership began classes in military science.

By the time of the Civil War, the Federal forces had an inadequate number of officers. When war broke out, there were only 684 graduates of the Military Academy serving in the US Army many of whom chose to fight for the Confederates (Lyons & Masland, 1959). Because of the dire need for officers, the Land Grant Act of 1862, in which the states received federal land in return for establishing programs of military training, sought to stimulate the development of critically needed military leaders. The Army sent instructors from the War College to act as professors of military science.

In the post-Civil war era, the Department of War formalized its relationship with colleges by proposing that professors of military science and tactics be granted full faculty status, and that a uniform be worn by students taking military instruction (Lyons & Masland, 1959).

In the early part of the 20th century, the Department of the Interior and the War Department audited several colleges and universities offering ROTC and found programs had little in common in instruction and curricula. The Chief of Staff at the time offered suggestions to standardized curricula and increase efficiency based on curricula and methods developed at West Point (Lyons & Masland, 1959).

The National Defense act of 1916 was the foundation for the contemporary ROTC program. This legislation required colleges applying for Land Grant status to establish and maintain a two-year compulsory course of military training. This provided the Army a ready supply of trained officers who were needed at the beginning or WWI (Lyons & Masland, 1959). The formalization of the ROTC Program presented to Congress by the War Department and incorporated in the National Defense Act of 1916 was essentially

the program developed by at the War College. As a result, it was similar in many aspects to the program at the Academy.

The ROTC program has proven extremely valuable. In 1917, ROTC trained approximately 28,000 Army officers for WWI. In 1941, the programs provided more than 100,000 college-educated officers for the war. In the 1950s, the Universal Military Training and Service Act required all ROTC graduates to be active duty officers for a specific amount of time (Neiberg, 2000).

During the Cold War, particularly in the Viet Nam era, the ROTC program participants decreased in numbers. This marked decrease was due to the widespread dissatisfaction with the war and the associated loss of prestige of the military, and tensions between universities and the ROTC programs (Neiberg, 2000). These tensions were in three areas: first, universities wanted academically qualified instructors for these programs, a disagreement over the credits given for the ROTC classes, and finally difference between education at the universities as compared to the training paradigm of the Army (Neiberg, 2000).

From the 1980s to the late 1990s, enrollment in the ROTC programs increased. This was due to the increase in minorities and women in the programs. Additionally, these programs offered more scholarships to cadets generally and specifically to these previously under represented groups (Neiberg, 2000).

In summary, the history of the ROTC programs can be viewed as a response to the need to train a great many officers in times of war (Lyons & Masland, 1959; Neiberg, 2000; The Department of Defense FM-22, 2006). More than any other program described in this review, ROTC programs, due to their history with the War Department

provide the most standardized leadership education program in terms of curricula and methods of instruction from university to university.

Current Curricula in Military Science

To be able to function effectively in battle, the Army and other services are organized into hierarchies of authority. The Army's hierarchy begins with the individual soldier and extends upward through the ranks in a system of authority known as the chain of command. Ultimately, this leaves the Army itself and continues on with civilian leadership: the Secretary of the Army, the Secretary of Defense, and the President of the United States (The Department of Defense FM-22, 2006).

Current ROTC programs offer several leadership courses including the Army ROTC Basic Course, Leaders Training Course, Army Advanced Course and Leaders development Course (www.goarmy.com, 2008). The Army endeavors to educate all military leaders to have a strong intellect, physical presence, professional competence, high moral character and to serve as role models. And perhaps of all leadership disciplines, the Army takes a practical approach to training its leaders. The leadership programs educate future leaders in the following areas (The Department of Defense, 2006) (p. 8):

1. Leaders have an understanding of the Army definitions of leaders and leadership.

2. Leaders have instilled in them the Warrior Ethos is embedded in all aspects of leadership.

3. Course requirements are used as a common basis for thinking and learning about leadership and associated doctrine.

4. Leaders are knowledgeable about the roles and relationships of leadership including the role of subordinate or team member.

5. Cadets discover what makes a good leader, a person of character with presence and intellect.

6. Leaders learn how to lead, develop, and achieve through competency-based leadership.

7. Leaders understand the basics of operating at the direct organizational and strategic levels.

The military has adjusted its training manuals to different styles of leadership. Yeakey, (2002), a retired major of the U.S. Army, argues that the Army has pursued the idea of adaptive leadership since the formation of the Continental Army and this continues because organization, control, discipline, and teamwork were lacking (Yeakey, 2002). He stresses that leaders must adjust their styles to the situation as well as to the people being led. As noted earlier, adjusting leadership style is one aspect of situational leadership.

In summary, military leadership course-work focuses on leadership classes, as can be seen by the ROTC offerings of leadership. Leadership styles are often addressed in these classes.

Critiques of Military Leadership Programs

As early as the 1940s, colleges and universities have had several problems with the Army and its education in the ROTC program. These include what constitutes proper instructors. Colleges and universities believed the ROTC instructors should have more

education than they did. Some ROTC instructors had little to no college education, and the Army was slow to provide its instructors with any formal education (Neiberg, 2000).

Additionally, colleges and the Department of Defense differed on the amount of credit awarded for ROTC classes. This stemmed from the perceived poor quality of instructors and the Army's training paradigm. Colleges viewed ROTC courses as training and not as education (Neiberg, 2000).

Other criticisms of the training in ROTC programs include Hutchison's (1988) critique Army's published training materials. Hutchison's study found that the training programs implicitly emphasized cultural indoctrination over promoting social influence skills. In other words, military hierarchy was promoted over social influence (Hutchison, 1988). In another study by Utecht and Heier (1978) the authors found that often in the assignment of military officers there was little thought given to the nature and type of assignment compared to the leadership style of the leader. They reasoned that this was because the military assumes that all officers are leaders (Utecht & Heier, 1978). Their findings imply hat not all leaders were right for all situations.

Additionally, there are arguments for teaching cultural intelligence in the military. Ng, Ramaya, Teo and Wong (2007) argue that the military has switched roles from one that fights in war to a peace-keeping force. Because of this role, the military is sent to other regions of the world for peace-keeping duties. As such, the researchers feel that the study of other cultures and traditions is important in leadership training in the military (Ng, Ramaya, Teo, & Wong, 2007).

In summary, ROTC programs have been criticized for having inadequate faculty and coursework. These criticisms are similar to other formal leadership educations

notably public administration, business administration and educational leadership. Additionally, military science has been criticized for not teaching cultural intelligence (Ng, Ramaya, Teo, & Wong, 2007).

Recommendations for Military Science Programs

Interestingly, there are few recommendations for military science programs found in the literature. As stated above, the major one being that colleges and universities recommended ROTC instructors receive more education (Neiberg, 2000).

Jacobs, a military psychologist, believed that battlefield leaders must know the dynamics of the Army rules to meet challenges and to produce untried solutions (1991). Further leaders at lower levels were expected to have more initiative and foresight, and decreased sensitivity to rank differences. This shifts the leader's focus from who is right to what is right (Jacobs, 1991). He further argued that because of stress in the military environment, leaders must generate high unit cohesion before going into battle (Jacobs, 1991). Leaders must be able to operate autonomously, be flexible, and adaptable to deal with surprises. Finally, Jacobs believed it critical that leaders must be able to learn from their mistakes.

In summary, critics of ROTC programs recommended that faculty be appropriately educated. Additionally, recommendations included changing curriculum to include training that addresses rapidly changing environments such as those described by Jacobs (1991). Finally, Ng, Ramaya, Teo, & Wong, (2007) recommended that ROTC programs teach cultural intelligence, giving officers needed insight while serving as a peace-keeping force. Finally, the question remains; does military leadership education make better leaders as compared to those leaders with no leadership education?.

Public Administration

History of Public Administration Programs

Public administration is perhaps the oldest of all leadership fields (Lindsfield, 1997). Such notables as Plato, Aristotle and Machiavelli can be cited as having made significant contributions to the knowledge base (Lindsfield, 1997). These earlier writers principally dealt with problems of a moral and/or political nature. Plato emphasized the concept of the Philosopher King creating an ideal state, while more than a millennium later Machiavelli identified other ways to rule effectively, according to Lindsfield.

From the 16th century onward, the national state was the model of administrative organizations in Europe. These countries needed an organization for the implementation of law and order, and for national defense. The need for expert civil servants with knowledge of taxes, statistics, administration, and military matters grew from that time. Frederick William I of Prussia established a professional field of study called *Cameralism,* which was an economic and social school of thought (Lindsfield, 1997). This ultimately led to the modern field of public administration.

Modern public administration's development as an academic field may be conceived as a succession of four phases up through the 1970s (Golembiewski, 1974). They are:

1. The politics/administration period, from 1900 through 1926.

2. The principles of administration period, from 1927-1937.

3. The reform period, from 1937-1950.

4. Public administration as a political science, from the 1950s forward.

Goodnow's book *Politics and Administration* (1900) contended that there were two distinct functions of government: politics and administration. Politics dealt with policies and the will of the state, where administration dealt with the execution of the policies (Goodnow, 1900).

The first phase of public administration received its first serious attention from scholars largely as a result of the public service moment that was taking place in American universities (Henry, 1975). A report issued by the Committee on Instruction in Governance of the American Political Science Association (1913) argued that political science was concerned with the training of citizens to be in professions such as law, and training experts to be prepared for government positions. The first textbook completely devoted to public administration appeared in the 1920s (Henry, 1975). The general accomplishment of the first phase was that public administration began to be viewed as capable of becoming a value-free science with a mission of economy and efficiency (Henry, 1975).

The second phase of public administration started with the publication of Willoughby's *Principles of Public Administration* (1927). This book premised that certain principles of public administration existed; they only had to be discovered, and administrators would be experts in their work if they learned how to apply these principles (Willoughby, 1927).

Public administrators were in high demand during the 1930s and 1940s. They were courted by government and businesses alike. Henry (1975) noted that the desire to have public administrators in leadership positions was because they understood, and

indeed developed, the basic principles of administration. This idea was best summarized

in an article by Urwick in 1937:

> It is the general thesis of this paper that there are principles which can be arrived
>
> at inductively from the study of human organization which should govern
>
> arrangements for human association of any kind. These principles can be studied
>
> as a technical question irrespective of the purpose of the enterprise, the personnel
>
> comprising it or any constitutional, political or social theory underlying its
>
> creation (p. 49).

The third phase was started by the publication of Herbert Simon's article, *A*

Comment on the Science of Public Administration (1947). Simon effectively

demonstrated that for every principle of administration there was a counter-principle in

the literature. His argument essentially rendered useless the idea that experts who applied

principles were successful in government because there were essentially *no* principles

(Henry, 1975). However, Simon did propose that there should be two kinds of public

administrators: those who went to academia and those who were practitioners (Simon,

1947). The practitioners should be grounded in economics and psychology, whereas the

academicians should be prepared with theory and research methods.

The fourth phase of public administration is often referred to as the reform phase,

which came about as result of the criticisms that occurred in phase three. By the 1960s,

public administration ceased to be a subcategory of political science. The main focus of

public administration from the 1950s to the 1970s was more on administration and less

on political science. Advances in theory for business administration were adapted to

public administration, and in the 1950s the journal *Administrative Science Quarterly* was

established (Henry, 1975). Public administration began to focus on administration with the public interest. The program's focus changed to teaching its students how to be effective administrators and leaders in the public arena (Henry, 1975).

The competing roles of public administration (being political or administrative in nature) continued to cause problems for public administration through the 1970s. From the 1970s through the 1980s, practitioners of public administration started to work with its core: that is, to govern. Therefore, governance and government became an important part of the curricula (Raadschelders, 1999). Thus, the focus on political science was reestablished.

Contemporary public administration curricula have four basic areas of knowledge. The first concerns the foundations, the proceedings, and the actions of government. The second deals with the officials of government: these include political officeholders, civil servants and corporations (Raadschelders, 1999).The third area of knowledge embraces pure theory, in which the study and practices of administrative theories are emphasized. The last area concerns how public decisions are made and maintained. Public decision curriculum is organized around three basic activities: defending and protecting decisions, distribution of information about these decisions, and legislating and monitoring these decisions (Raadschelders, 1999).

Public administration's history can be characterized as having an identity crisis: Specifically, some have wondered whether it is a study of political science or public policy (Henry, 1975). Many would argue that both are needed—indeed, are required—for civil servants (Raadschelders, 1999).

Current Curricula in Public Administration Programs

In 1990, Robert Cleary reviewed 215 graduate public administration programs. Of the programs he surveyed, 173 gave usable responses for a response rate of 80.5 percent. He found that 75% of the programs had the same name for their degree: "Public Administration." The remaining 25% were named either "Public Affairs" or "Public Policy."

According to Cleary, common curriculum requirements varied from program to program. In terms of numbers of courses, two programs required just two courses (six semester hours each). At the other extreme, one program required 11 core courses of three semester hours each. The mean number of core courses required by the respondent programs was seven (Cleary, 1990).

Ninety-six percent of programs offered courses in public administration, administrative theory, or administrative behavior. Additionally, 95% of programs offered research methods or quantitative analysis in public administration. Similarly, 82% of programs offered financial management or governmental budgeting, and 71% offered courses in policy analysis or policy making and administration. Additionally, 58% offered courses in personnel administration or human resource management, and 57% offered courses in economics. Finally, 34% offered courses in computer sciences and 23% in legal processes (Cleary, 1990).

From Cleary's data, one can identify that there are six basic core classes: public administration, research methods, public finance, policy analysis, personnel and political institutions or processes. Despite these similarities, many respondents surveyed felt that there was currently no core curriculum, and stated that there should be an inner core of

courses taught for graduate degrees in public administration which would be the same

from program to program (Cleary, 1990).

Critiques of Public Administration Programs

In recent years, the demand for accountability in public services has risen. This

seems to have been a result of taxpayers' desire to improve public agencies, fueled by the

belief that they had been performing poorly (Jennings, 1989).

Although there has been much change in the current curricula, public

administration continues to be criticized for having no standard educational approach

(Ventriss, 1991). Ambiguously different, the theoretical and methodological approaches

cause confusion about what students need for careers in public service. Indeed, as early as

1978, John Dyckman wrote:

> Most schools and programs in public administration are not very good, lacking in
>
> both rigor and purpose. We must create and better true schools of public
>
> administration . . . some, even many, existing programs in public administration
>
> should be allowed to die slowly (p. 22).

Dykman's (1978) critique of lackluster outcomes in public administration

education programs anticipated similar problems in business administration and

educational leadership. According to Dykman, to produce leaders who can make a

difference for their organizations is the single most important facet of leadership

education.

For programs of professional graduate education, the question of accountability

has risen in several areas. In 1987, a task force formed by the National Association of

Schools of Public Affairs and Administration (NASPAA) issued a report that argued for

the present master's degree standards and curricula. Task force members recommended that a group be formed to design and enforce standards that relate to the skills and knowledge of graduate programs.

Felbinger et al. (1999) discussed the current state of doctoral education and what current public administration doctoral candidates were learning. They stated that a doctoral education was the "production of the professorate to ensure continued knowledge development through teaching" (p. 561). In other words, the purpose of a doctorate was, at least in part, the continuation of the field. They argued that this was not being done, as these doctoral graduates were finding work in areas other than academia (Felbinger et al., 1999).

A main point of Felbinger et al.'s argument was that the majority of people obtaining a doctorate never published anything that contributed to the knowledge base of the field, and only a minority of graduates entered academia. Further, the quality of research was questionable, and many faculty positions were being filled by individuals in other disciplines (Felbinger et al., 1999).

Additional criticisms faced by schools of public administration included the lack of qualifications of faculty (Felbinger et al., 1999, Jennings, 1989). Many faculty positions were open, but many programs were hiring faculty from other disciplines (such as social work, business management and economics) to teach courses in public administration. Thus, the lack of qualified faculty may suggest that the programs themselves were not producing enough qualified and interested graduates in their own field (Felbinger et al., 1999).

Another criticism of public administration was the low quality of students. Felbinger et al. (1999) suggested that there were at least five reasons students entered doctoral degree programs. The first was that the degree enhances the student's career, the second was that the degree inflates the ego, the third was to gain promotion, the fourth was to enhance the chances for receiving grants, and the last reason was that it may be advantageous to claim that one is a candidate for a doctoral degree without ever completing the degree. Jennings (1989) argued that the effectiveness of the program can be measured only by examining the outcomes of student achievement.

The quality of the dissertations in public administration was considered to be low according to the standards of social science research. One reason may be that the preparation in research design is inadequate (Felbinger et al., 1999). Of seventy academic programs in public administration reviewed, the majority only had one research course (Felbinger et al., 1999). This also indicated a lack of ability that students have in critiquing other research. With only one course, and few chances to discuss already-published work, students are not prepared to conduct their own research (Felbinger et al., 1999). Further, part-time students are not in a traditional academic community where they can interact with faculty and other doctoral students for any amount of time. These students miss out on the intellectual discourse that they would otherwise get if they were full-time students (Felbinger et al., 1999).

Denhardt (2001) examined a major concern of critics of public administration education: whether public administration educates its students with respect to theory and practice. He concluded that it depends on the student: one who has been out of education

for a while would like theory, and new to the field would like the "nuts and bolts" of administration (p. 533).

The second question that Denhardt examined was whether public administration programs prepared students for employment, especially in management positions. He concluded that students required different kinds of information at different points in their careers. The pre-service students needed analytical skills, while in-service students needed management skills. He concluded that the programs did not teach either well (Denhardt, 2001).

Finally, Denhardt suggested an alternative for public administration education: that the field take into consideration the kinds of students that it accepts—pre-service or in-service—and cater to each group differently.

In summary, public administration has been criticized for its faculty being inappropriately trained, for the low quality of its students and lack of continuity in its coursework (Denhardt, 2001; Felbinger et al., 1999; Ventriss, 1991). These are similar to criticisms of business administration and educational leadership, as will be shown below.

Recommendations for Public Administration Programs

Peel et al. (1998) reported that the most effective public administration programs use practical teaching methods such as role-playing, simulation activities, internships and mentoring to encourage students to transfer their theoretical knowledge to practical use. Furthermore, students who participated in role playing activities were able to react to typical administrative tasks and receive feedback from their professors. Mentoring allowed a student to be guided through the job by a person with years of experience; this person typically became invested in the student and wanted him to succeed (Peel et al,

1998). Finally, internships provide practical experience for students to "try out" a position.

Critics of public administration stated that students needed to be able to deal with change, uncertainty and ambiguity in their future positions (Balfour & Marini, 1991). Students also needed to work with diverse values, be lifelong learners, have a firm foundation in ethics, and to work constructively with superiors, colleagues and clients. Finally, students needed to be flexible and open-minded, self-directed and creative (Balfour & Marini, 1991).

If the aim of public administration education is to help students become practitioners of administration, then the following instructional methods should be in place in the core curriculum, as suggested by Balfour and Marini (1991):

1. There should be reciprocity in the teaching learning, and communication transaction; i.e., the students both learn from and teach the instructor.

2. There should be facilitators who help the learner diagnose learning needs.

3. Learn by working on today's problems. (p. 482).

These recommendations—practical problem solving, mentoring and role-playing—are all similar to those offered in business administration and educational leadership, as will be shown below.

Business Administration

History of Business Administration Programs

Business management started not as an academic tradition, but more as an academy or preparation school (Bornemann, 1961). The stimulus for the founding of graduate work in business came from Germany in the 1870s. The creation of American

universities and the strengthening of many colleges brought in new types of professors

trained as researchers who were accustomed to thinking for themselves (Bornemann,

1961). The professional academic point of view began to take root in business

administration education at the turn of the nineteenth century (Bornemann, 1961).

The accepted academic profession of business had its origins at approximately the

same time that the management movement in industry was becoming popular in the early

part of the 20th century. In 1881, the Wharton School of Finance and Commerce was

established at the University of Pennsylvania. In 1889, the present-day School of

Business Administration was established at Berkeley (Bornemann, 1961). These early

schools all had *commerce* in their names, suggesting that sales and the logistics of sales

were what was thought to be important.

The emphasis on accounting and finance reflected the expansion and growing

complexity of business, as well as the desire for advanced instruction going beyond

bookkeeping. Bornemann (1961) suggested that the field of management might have

emerged from economics. As a field of study, management was left out of the academic

field of economics. In the early part of the 20th century, business education focused on

management in an effort to produce more professionals and practitioners. However, little

attention was given to what managers were actually doing (Bornemann, 1961).

When industrial management courses were first introduced, they were associated

with the Scientific Management movement in industry known as "Taylorism," after its

founder, Fredrick W. Taylor. Taylorism is the breaking down of management tasks such

as wages and human resources, which compartmentalized leadership. Later assessment

deemed this to be ineffective (Hanson, 2003). Nonetheless these functions were typically

compartmentalized into a hierarchical structure of leadership. Higher order management skills, such as vision and trends, were seldom addressed (Hanson, 2003).

The inclusion of leadership in coursework became more apparent in the 1930s. The Academy of Management first started in 1936, but it was not until 1947 that it began to grow in membership and influence. The Academy's emphasis was not "primarily with specialized procedures for the control and execution of particular kinds of projects that are significant chiefly in narrow segments of a business field, but rather lies in the theory and practice of management" (Bornemann, 1961, p. 133)

The affiliation of U.S. business schools with universities led to the emergence of professors of management. These professors were expected to act as the developers, synthesizers, and communicators of managerial knowledge. It was often unclear as to whether a professor should be a practicing manager or an academician (Edfelt, 1988). Indeed, at a 1920s meeting of the Taylor society (a professional association of teachers of management in schools of business and engineering), there was a recommendation that the introductory course in management should be taught by practicing managers with a college professor as an assistant (Edfelt, 1988).

Since the 1960s, business management has taken on a different form. Some of the characteristics of business management in that era included: more frequent association with universities, greater reliance on full-time educators in business, more extensive attention given to managerial hopefuls rather than to practicing managers, a predominance of longer-term programs that were more theoretical in content and less oriented toward practice, and more international content and context.

In the mid-1960s, business schools focused on preparing students for service in some phase of management. They were trained as managers, supervisors, independent entrepreneurs, and as a variety of specialists (Shively, 1966). Certain traits, abilities, knowledge and skills were identified as prerequisites for these positions (Shively, 1966). The faculty were identified as having an above-average mental and analytical ability, a willingness to assume responsibility and to make decisions, a well-directed motivation, a general administrative competence and a good moral character (Shively, 1966). Business schools endeavored to develop curricula to teach students those traits (Shively, 1966).

In the late 1970s, the management portion of business school curricula was criticized for a lack of effectiveness of management courses. These criticisms included the lack of relevant and usable subject matter and course requirements (Mahmoud & Frampton, 1975). Management courses were often the catchall area, containing courses in behavioral sciences and management science. In a study from the 1970s, Mahmoud and Frampton found that courses in management were prolific. At one business school, there were 42 management courses with 6 separate majors in management (Mahmoud & Frampton, 1975).

By the 1980s, nearly one fourth of all university undergraduate and graduate programs in the United States offered degrees in business and management fields. The choice of management as a field of academic specialization was common for graduate degrees in business administration (Edfelt, 1988). Additionally, these graduate schools actively sought out students who had prior work experience and began to downplay specialized admission tests such as the Graduate Management Admission Test, instead emphasizing other qualities and experiences (Edfelt, 1988).

In the 1990s, business schools were criticized for not addressing the needs of the global competitive business environment. Mason (1992), as well as others, believed that the primary "customer" for an MBA is the business that hires the graduate; thus, business schools must respond to the changing needs of the customer. Mason noted that businesses were not happy with the quality of graduates and complained that business schools were failing to prepare MBA graduates for the real world (Mason, 1992). The late 1980s and early 1990s were a time for change in business school curricula. Curricula in the 1990s were largely based on theory; many critics stated that it was too theoretical (Mason, 1992). Mason suggested that business schools partner with businesses in order to create a contemporary and practical curriculum. By the late 1990s, business schools were facing decreasing enrollments (McKendal & Lindquist, 1997).

Business administration had its beginnings in Scientific Management. As the profession progressed, it moved into a partnership with business to create desirable graduates (Shively, 1966). Recently, business administration programs seem to have ignored the needs of businesses; this is the basis of some criticisms found below.

Current Curricula in Business Administration Programs

The Association to Advance Collegiate Schools of Business (AACSB) International was founded in 1916 and began its accreditation function with the adoption of the first standards in 1919. Additional standards for programs in accountancy were adopted in 1980. AACSB International members approved mission-linked accreditation standards and the peer review process in 1991. In 2003, members approved a revised set of standards that are relevant and applicable to all business programs globally and which support and encourage excellence in management education worldwide (AACSB, 2008).

Although MBA programs may differ, all MBA programs expose students to a common body of knowledge, including basic accounting, economics, finance, human resources and organization design, marketing, operations, policy, and quantitative methods and statistics. (AACSB, 2008).

These core subjects are generally taught in the first year of a traditional, two-year MBA program. Other types of programs may require students be proficient in some or all of these areas upon entrance, and may not cover as many of them, or cover them in as much detail.

Other trends in business curriculum focus more on instructional outcomes rather than employability of students, customer service, or software application skills (Gleason, 2006). The National Association of State Directors of Career Technical Education Consortium worked in the late 1990s and early 2000s with several federal projects to develop curricula for business schools (Gleason, 2006). The goal is to develop curricula for each of 16 broad occupational groupings known as career clusters, which range from agriculture business through law and health to governmental finance (Gleason, 2006). The hope is to develop a standard curriculum that all business schools can use (Gleason, 2006).

As of 1998, there were 700 institutions offering an MBA program, enrolling in excess of 200,000 students and granting over 90,000 degrees annually (Gregorowicz & Hegji, 1998). In 1998, Gregorowicz and Hegji conducted a survey of 287 business schools to find out what the surveyed schools felt about their curriculum, particularly in economics. The response rate was 39%. A 79% majority felt that their management

curricula were an area of strength, while the remainder of the schools favored the finance curriculum as an area of strength.

Ainsworth and Morley (1995) surveyed 350 graduates of MBA programs to assess the value of management education. They had a response rate of 61%. The survey covered four basic areas: the first was the reaction to the educational experience, the second was the knowledge gained during the experience, the third focused on students' behavior that changed as a result of the experience, and the fourth was concerned with the outcomes achieved from the experience. Most of the alumni believed that their MBA contributed greatly to their position and salary however, only 35% felt their coursework was relevant to their career. Additionally, 43% felt that they gained knowledge, and 16% reported that they changed their behavior as a result of their coursework. Finally, 18% felt that they achieved the outcomes promised (Ainsworth & Morley, 1995). It should be noted that these data consisted entirely of self-reported information. The reliance of self-reports of graduates to evaluate programs is frequently encountered in all leadership programs. While important if "customer satisfaction" is the goal, such emphasis completely ignores a more important issue. Namely what are the outcomes for the organization? This in turn invites a consideration of indicators; both of these are addressed below

Segev and Farjoun (1999) collected data from the 25 best business schools according to the 1998 *U.S. News and World Report* "Nation's Best Colleges" issue. They found that about 50 percent of the total MBA program requirements included accounting, marketing information systems, operations management, economics, finance, human resources, organizational behavior and international business (Segev & Farjoun, 1999).

Their analysis revealed that there were six patterns of school groupings dependent on the core courses that were taught. In other words, these twenty-five schools could be classified into six school types on the basis of their required curriculum. Interestingly, the top five schools were in different clusters of school types. For example, one school's focus was marketing while another school's focus was management. This implied that there is no one best school type (Segev & Farjoun, 1999).

A non-profit consortium creating new national standards in business, MarkEd, recently conducted a survey (2006). A panel of forty experts consisting of business school deans and CEOs of national and international businesses from across the U.S. was asked to describe the classes they had found valuable. The core curriculum defined from this survey included business law, communication skills, customer relations, economics, emotional intelligence (techniques, strategies, and systems to foster self-understanding and enhance relationships with others), entrepreneurship, financial analysis, human resource management, information management, marketing, operations, professional development, and strategic management.

It is interesting to note that there are commonalities among business administration and public administration. These include courses in finance, law, and basic management practices. Additionally, human resource courses are similar between programs (Segev and Farjoun, 1999; Cleary, 1990).

Critiques of Business Administration Programs

Business administration education has been criticized along similar lines or programs in public administration (Edfelt, 1988). These criticisms include concerns about

faculty appropriateness, student quality, and program effectiveness (Edfelt, 1988; Hoaas & Wilcox, 1995).

In 1988, Edfelt discussed unresolved problems in business management and questioned the extent to which a formal study of management contributed to effective long-term managerial performance. He also examined who is best suited to carry out business administration education. He compared the United States MBA preparation programs with those of other countries, and concluded that the current education in business administration is insufficient for market needs. The skills that are being taught, including economics, accounting and management, although valued by employers, are not viewed as the most important. Skills that employers reported as important were written and oral communication, synthesis, problem solving skills, and drawing conclusions from data (Edfelt, 1988).

MBA programs have been criticized for not providing businesses with the type of persons preferred. Gupta, Saunders and Smith (2007) found that while 35% of business employer advertisements asked for general MBAs, schools keep offering more and more specialization programs. Gupta et al. (2007) also suggested that business schools should continue to provide an analytical curriculum focusing on accounting, marketing and finance, while employers are looking for people skills such as observing consumers, collaborating with teams and communication across cultures.

MBA faculty appropriateness was questioned in another critique (Murray, 1988). There are a great many colleges and universities that have non-business faculty teaching in schools of business (Murray, 1988). Interestingly, the number of business school faculty trained in management has declined by 10% in the 1980s.

Hoaas and Wilcox (1995) argued that MBA core curriculum needed more and appropriate ethics courses. They proposed that in the 1990s schools and colleges of business needed to address the questions of business ethics and social responsibility. This criticism was due to the number of legal cases against managers and business organizations that were seen in the popular press in the 1990s. As with the latter-day example of Enron, financial scandals stemming from irregular accounting practices persisted throughout the 1990s, and even in the mortgage crisis in early part of the 21st century.

Finally, criticisms of business administration programs include the inadequacy of coursework; particularly courses in management. In an article from 1999, Liberatore and Nydick suggested that in order to improve the MBA program for part-time students, the following activities on the part of business schools were needed:

1. Empower student to identify, model and solve practical business problems themselves.

2. Develop a management course that offers a set of integrated modules, rather than a survey that delivers a technique a week

3. Enable student groups to conduct projects in which they apply management science modeling to practical problems organizations face.

4. Develop student's presentation and communication skills (p. 105).

The authors go on to discuss the types of students that MBA programs admit. The students' average GPA is 3.1, there is a 6.5 to 3.5 male-to-female ratio in the program, the average GMAT score is 576, and the percentage of business majors applying is 44% (Liberatore & Nydick, 1999). From these data, in particular the test scores, Liberatore

and Nydick concluded the overall caliber of students accepted into business programs was weak.

Like public administration, business administration has been criticized for the quality of students, the faculty, and the curriculum. These allegations are echoed in critiques of educational leadership, as will be shown.

Recommendations for Business Administration Programs

Surveys of business schools indicate that there should be high quality faculty who are current in their field, conduct themselves appropriately, who conduct research and can teach (Lock, 1996). Such instructors, it is agued, are rare and hard to recruit. A great deal of business schools have faculty trained in other fields, and it has been recommended that business schools hire business faculty.

Liberatore and Nydick (1999) recommended that business schools be more selective with their students, particularly selecting more that are business majors.

MarkEd/Career service staff recommended that classes be taught in the areas that are important to business. A core curriculum is needed that includes administrative services, business information technology, finance, general management, human resource management, marketing, operation management and accounting (MarkEd/Career Services, 2007).

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Educational Leadership

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History of Educational Leadership Programs

Educational leadership was typically called education administration before the 1980s. The name change was due to the reform movement of that decade (Murphy, 1991). Educational leadership is more studied than related leadership education efforts

such as those in public administration and business administration (Murphy & Forsyth, 1999).

The first college level course in education administration was taught sometime between 1879 and 1881 (Cooper & Boyd, 1988). From 1890 through 1910, courses in education administration were transformed into full-blown graduate degree programs in response to the enormous expansion of public schools (Powell, 1976). High schools became mainstays in public education, where the student enrollment nearly quadrupled between 1890 and 1920, and the number of teachers almost quintupled. The number of graduate programs in school administration grew rapidly. By the end of World War II, 125 colleges and universities had programs in school administration (Powell, 1976).

The differences in philosophies of schools of administration were apparent from the start. Some thought that a preparation model like those of law and medical schools would be effective as the principal program. Others argued that practical instruction was the key to educating administrators. Still others felt that the development of the science of educational research was the way to train leaders (Powell, 1976).

Murphy and Forsyth (1999) identified four distinct periods in the evolution of education programs for school leaders: (a) the early development of education for school leadership in the late 19th century; (b) the development of managerialism in the early 20th century; (c) the post-WWII era; and (d) the later years of the 20th century. Most recently, a redefinition of school management education has been taking place.

The Development of Education for School Leadership in the Late 19th Century

The development of the superintendency in the U.S. and an associated development of systematic education programs occurred during the latter part of the 19th

century (Gregg, 1960). William Payne wrote the first book in the U.S. dealing with the school administrator and taught the first university-level course on school administration at the University of Michigan in 1879 (Callahan & Button, 1964).

The preparation of school administrators focused on instruction; very little time was given to supervision or leadership. As instruction was considered to be the primary role of education, it was therefore the major focus of these formal education programs (Murphy & Forsyth, 1999). School administration was viewed merely as supervision during this period (Button, 1966). The first formal administrative education programs did not come into existence until the early part of the 20th century.

The Developing Managerialism of the Early 20th Century

Callahan (1962) described the first fifty years of the 20th century as prescriptive, meaning that the education was reacting to criticism, and the solutions were "prescribed" to the programs. There was considerable criticism in the popular press about the way schools were managed during this time (Cooper & Boyd, 1987).

This period of educational leadership was embodied by the Scientific Management movement, which revolutionized industrial production techniques and, as noted earlier was involved in the work of Fredrick Taylor. No element of society seemed immune from rational analysis and systematic attention to detailed scrutiny of processes (Burndrett, 2001). The education paradigm of school leaders changed, from being little different from teaching instruction and methodologies, into developing managerial notions. These latter ideas stressed the technical and mechanical aspects of administration (Callahan & Button, 1964).

Subsequent to the Great Depression and WWII, a dramatic shift in attention to leadership occurred. This shift emphasized a greater focus on the importance of human relations and the social roles of the educational leadership (Burndrett, 2001). As America came to accept more social policies such as those of the New Deal, the prime function of the educational leader changed to that of a social agent in society (Burndrett, 2001). By the end of the 1940s, almost no attention was given to the theoretical underpinnings of the work of school leaders. Leadership education became atheoretical, rather than an empirically-based profession (Murphy, 1998).

The Post-WWII Period

In the late 1930s, there was a slow recovery of the economy. World War II resulted in stimulated economic growth and development, which was reflected in many education system changes. Education for school leadership became more like other leadership professions primarily public administration and business administration (Callahan, 1962). Science was held in high esteem, and educational administration was recast as a science during the time from WWII to the mid-1980s. The conception of education administration developed as an applied science and theory-based subject area, drawing on disciplines external to education (Sergiovanni, 1991). Many steps to ensure the professionalization of schools of administration were articulated by major structural developments in the governance of educational administration at the intrastate level. Burndrett (2001) listed the following events as having a considerable amount of influence on American educational leadership (p. 232):

1. In 1947 the National Conference of Professionals of Education Administration (NCPEA) was formed, which linked leading professionals of educational administration for the first time to a professional association.

2. The creation of the Cooperative Project in Education Administration (CPEA), in the early 1950s, was a consortium of eight universities funded by the Kellogg Foundation, the primary propose of which was to institute changes in preparation programs.

3. The establishment of the Committee for the Advancement of School Administration (CASA) in 1955, which had an influential impact on the creation of professional standards of performance in educational administration.

4. The creation of the University Council for Educational Administration (UCEA) in 1956 saw the development of an organization that was to become the dominant force in shaping the study of educational administration in the 1960s and 1970s (p.232).

In this period the pattern for contemporary developments in educational leadership education was set out in detail. Developments included the foundation for the Interstate School Leaders Licensure Consortium (ISLLC), which developed a set of standards that most educational leadership programs use today. This was just an example of much collaboration among state and national governments and the leading educational theorists in the reformulation of programs (Burndrett, 2001)

The Latter Years of the 20th Century: The Redefinition of School Administration

Education

Since 1986, there have been escalating criticisms of the quality of the preparation

of educational administrators. The attacks have become more frequent than those seen in

earlier eras of reform (Hallinger & Murphy, 1991). Almost every element in educational

leadership has been the criticized, including, recruitment procedures, course content,

instructional techniques, quality of faculty, and standards of performance (Levine, 2005).

In response to such criticisms, the National Commission on Excellence in Education

Association (NCEEA) was founded in 1991. The NCEEA produced three influential

documents that importantly influenced educational leadership:

1. The report *Leaders for America's Schools* (NCEAA, 1988).

2. The publication of Griffith's address to the American Educational Research

   Association, which detailed improvements in leadership programs (Griffiths

   & Forsyth, 1988).

3. A UCEA-sponsored volume of papers on reform commissioned by the

   NCEAA (Griffiths et al., 1988).

Jointly, these documents were important in clarifying the debate on the profession

and providing the development of the National Policy Board of Educational

Administration (NPBEA) in 1988. The members of the board produced a report

recommending changes in educational leadership preparation. The NPBEA report was

one of the first efforts to systematize educational leadership programs (Burndrett, 2001).

The report emphasized the need for closer ties between theory and practice, and also

recommended that leadership programs be more concentrated on understanding the teaching and learning processes.

Reform continued in the 1990s, beginning with the 1990 publication of *Principals For Our Changing Schools: Preparation and Certification* by the National Commission for the Principalship (NCP). In this report, 21 functional domains of professional knowledge were outlined that should be required of school leaders. Blending the traditional content-driven curricula with leadership management and process skills was its main theme.

The NCP also published a second major report, *Principals for our Changing Schools: Knowledge and Skill Base* (1991). Its contents stimulated the updating of administration programs for schools affiliated by UCEA. The report was also used by the National Council for the Accreditation of Teachers Education (NCATE). Members of these groups produced curriculum guidelines for school administration programs. Recommendations were made for reformulation of preparation programs and school leadership curriculum to comply with School Leaders Licensure Consortium standards (Choices.org, 2007).

The history of educational leadership programs can be summarized as one of many reforms. From the prescriptive era to the "Nation at Risk," educational leadership has been criticized and reformed as a result.

Current Curricula in Educational Leadership Programs

Baker et al. (2007), using the Integrated Postsecondary Education Data System (IPEDS), a national data base which is used in this study, found most educational leadership programs granted only masters degrees. In 2003, over 15,000 were awarded to

students in educational leadership. The attractiveness of these programs to students was evident in the fact that approximately one third or 2300 of all doctoral degrees awarded went to candidates in educational leadership. According to Levine (2005), school leadership programs mainly educated three types of students—current and future administrators, teachers earning a degree primarily for salary enhancement, and future researchers in school leadership. The programs were oriented toward practitioners who were described as *pre-service* (students hoping to obtain jobs in school administration) and *in-service;* both types of students can become future researchers in school leadership (Baker et al., 2007).

Current educational leadership programs seemed to have many of the same types of core classes as those found in business administration and public administration. Levine (2005) reported that a typical curriculum is common to these programs. From principals surveyed, he found that 80% took the same courses—instructional leadership, school law, educational psychology, curriculum development, research methods, historical and philosophical foundations of education, teaching and learning, child and adolescent development, and the school principalship. These courses were in effect the core curriculum for the nation's principals, constituting upwards of 75% of the credits required for a master's degree. Former students surveyed reported the courses they valued most were those most relevant to their jobs. The most valued were school law, child and adolescent psychology, and instructional leadership. The least valued were described as having little practical use, such as historical and philosophical foundations of education, and research methods (Levine, 2005). Again the dependence of reports of graduates can be seen as a means of evaluating programs.

The educational leadership core curriculum was more consistent from school to school than that of public administration. That is, there were nine courses that were common among the surveyed principals, compared to public administration, where there were only four courses that 80% or more of the programs had in common (Cleary, 1990; Levine, 2005).

Critiques of Educational Leadership Programs

In more recent years there have been several reports and articles criticizing educational leadership programs (Levine, 2005; Hess & Kelly, 2005; SREB, 2007). These criticisms, like those of business administration and public administration, focus on faculty, course content and quality of students.

The report by the Southern Regional Education Board (SREB) studied the reform process at 22 universities, exhibiting their strong commitment to redesigning their programs. All respondents selected were either members of the SREB leadership network or had applied to be members (SREB, 2007). The Board concluded that program redesign efforts were hampered by the lack of collaboration between universities and school districts; the failure to create a curriculum that developed the leadership skills necessary to increase student achievement; poor planning, supervision, and evaluation of field experiences; and the lack of rigorous evaluation strategies for continuously monitoring and measuring program quality and effectiveness (SREB, 2007).

Finally, this report recommended that states need to address the following, in order to better prepare their students:

1. Authorize a commission to plan and provide oversight for a systemic redesign of the school leadership system, including selection and preparation of

principals, licensure, induction, and professional development and working conditions.

2. Require universities and local school districts to work together to select the right candidates for principal preparation and develop new programs that incorporate relevant content and field-rich instructional approaches to ensure that aspiring principals master the essential knowledge and skills for improving schools and increasing student achievement.

3. Challenge university presidents to place a high priority on producing a continuing supply of high-performing principals and make it an essential part of the institutional mission, with a level of funding and staffing that supports a quality program.

4. Restructure state licensure to require and provide feasible means for implementing a year-long residency with emphasis on instructional leadership for those individuals whom districts intend to appoint as first-time school principals, including mentoring by principals who demonstrate effective instructional leadership and complete a state-approved mentor education program.

5. Develop new criteria and program approval processes holding universities and local districts jointly accountable for providing quality principal preparation programs and evidenced by curricula and field experiences that meet rigorous standards and measure of graduates on the job performance and impact on school practices and student achievement.

6. Eliminate salary schedules providing pay increase to individuals who earn a master's degree in educational administration but are not employed in a school or district in a leadership position. (p.15)

Hess and Kelly's article "Accidental Principal" (2005) examined the course syllabi used in principal preparation programs from across the United States. Syllabi were used because they would show exactly what students were expected to read and the topics they were to study. More than 200 syllabi from 31 programs were reviewed; they included courses such as school law, school finance, facilities management, managing personnel and norms and values (Hess & Kelly, 2005).

Hess and Kelly found that principal preparation programs did not keep pace with changes in school and left the graduates ill-equipped for the challenges of a new era of accountability. The authors reported that principals were receiving limited education in the use of data, research technology, the hiring or termination of personnel, and systematic evaluation of personnel (Hess & Kelly, 2005). This finding somewhat contradicted Levine's findings in which principals reported that research classes did not help them in their current position (Levine, 2005).

Finally, Hess and Kelly concluded that departments of education were teaching students things that have been done traditionally: the monitoring of curricula, support and encouragement of faculty, and facilities management (Hess & Kelly, 2005). This does little to prepare faculty for the issues addressed by the mandate of No Child Left Behind (Hess & Kelly, 2005).

A 2005 report that best summarized all of the criticisms of educational leadership was authored by Arthur Levine, Dean of the Teachers College at Columbia University in

New York. His report strongly criticized the education and training that school leaders receive at most graduate-level programs across the nation. He discussed the current profiles of school leadership programs and the curricula of these programs, the students admitted to them, the faculty teaching the courses in these programs, the poor research from non-productive faculty of these programs and, finally, how others in academia view these educational programs (Levine, 2005).

In a survey of 742 principals across the nation Levine found they were critical of their leadership preparation programs. Nine out of ten surveyed said that schools of education failed to adequately prepare their graduates to cope with classroom realities (Levine, 2005). However, there was no mention as to whether or not leaders interviewed felt that their education helped with the institutional outcomes.

Levine also focused on the virtual absence of admission requirements in some institutions as well as what he felt were low graduation standards of the leadership program students. From data gathered through the GRE program, Levine noted that out of 16 graduate programs normally found at universities that award doctoral degrees, the average GRE for verbal was 475; for quantitative, 602; and for analytical, 4.9. The average scores of the students accepted to the leadership programs were respectively 452, 510, and 4.3. The difference in these scores is not very much at first glance, but there could be a part-whole problem: namely, would taking out the scores for educational leadership students increase the scores as a whole at a university graduate school, making the difference even larger?

Additionally, Levine believed that faculty members in leadership programs were, overall, weak in publication, teaching, and service, as indicated by surveys of other

college faculty. The reasons for weak faculty seem to be paradoxical: he argued that most faculty have had little experience in actual school leadership roles such as that of principals and superintendents. He stated that the field leans too heavily on practitioners serving as part-time faculty and, on the other hand, it employs too many full-time professors who have minimal (if any) recent experience in the practice of school administration. Surveys of principals found comments such as the adjunct professors consisted largely of local superintendents and principals. Their dominant mode of instruction was the telling of personal anecdotes about their adventures as school administrators (Levine, 2005).

The quality of educational research was also criticized. Levine stated that the body of research in educational administration cannot answer questions such as whether school leadership programs have any impact on institutional outcomes. Research in educational administration was criticized by the academic community and by education school faculty members and deans to a greater degree than research in any other field examined in the course the Levine's report (2005), such as sociology, psychology and physics, to name a few.

Levine argued that because schools of education have state and national political ties, they should not be allowed to set their own standards. Finally, the issue at the heart of the debate continued to be how school leaders should be educated and who should provide that education (Levine, 2005).

Again, like public administration and business administration, educational leadership has been criticized for not having appropriate faculty, low quality students and poor course content (Levine, 2005).

Recommendations for Educational Leadership Programs

In a report to the State Action for Educational Leadership Project by Chenoweth, Carr, and Ruhl (2002), several best practices for educational leadership programs were recommended. These included strategies for recruitment and selection, curriculum, instruction and delivery, internship, and program evaluation. They additionally recommended that professional development of faculty should be part of these programs (Chenoweth et al., 2002).

They went on to suggest that selection of potential candidates should be made with the program philosophy as the major criteria. In other words, if the focus of the program is teaching practitioners and not academicians, then practitioners should be selected for the program. They further suggested that emphasis be placed on assessing the skills of the candidate (Chenoweth et al., 2002).

The curriculum change that Chenoweth et al. (2002) suggested is based on the graduates having a combination of knowledge base, including traditional discrete knowledge, and understanding of professional standards such as the six interstate school leaders licensure consortium standards. They also suggest that the course-work be delivered in such a manner as to be presented with content that was previously presented. Additionally, Chenoweth argued that prospective leaders must learn how to integrate multiple data sources (Chenoweth et al., 2002).

The authors argued that intern programs would provide a period of time to help practitioners prepare for leadership. They suggested that leaders who have had intern experience are more confident, and that they were more prepared for their jobs as compared to those that have no intern experience (Chenoweth et al., 2002).

Finally, Chenoweth et al. assert that program evaluation is important for improving leadership programs. They did, however, note that there is no evaluation currently being conducted that gives definitive answers on the effects of leadership programs in terms of institutional outcomes (p. 48).

Commonalities Among Leadership Preparation Programs

History

There are some clear continuities in the histories of public administration, business administration and educational leadership. In the 1920s, all of the leadership programs were based on Taylor's scientific management (Levine, 2003; Edfelt, 1988; Henry, 1975). In the 1940s and 1950s, leadership programs started to examine effective leadership behaviors and styles (Vroom & Jago, 2007).

It is important to note that in the 1980s business administration and educational leadership programs were both criticized for not adequately preparing leaders. And these criticisms led to changes. This process continues with current programs such as MarkEd, an association which is trying to standardize business curriculum; and the recommendations of the SREB, which seeks to standardized curricula used in business administration and educational leadership (SREB, 2007; MarkEd, 2007)

Academic programs in public administration, business administration, and educational leadership followed similar trends in teaching organizational behavior as a management tool. That is, all programs and education in the early twentieth century had a hierarchical structure. In the fifties and sixties, all of the education programs focused on the education of leaders in organizational theory such as social systems (Henry, 1975).

Importantly, they were all subject to the same criticisms for not providing what each of the programs promised: leaders.

Finally, the history of military leadership education differs from public administration, business administration and educational leadership in that it started much earlier, and has standardized its courses and experiences for its cadets nationwide.

Curricula

All four types of leadership programs offer courses that are specific for their disciplines. For example, business administration has economics, public administration has public policy and educational leadership has teaching and learning courses in the curriculum. Similarities among all three programs are law, finance, technology, human resources and some type of management/leadership courses (Gregorowicz & Hegji; 1998, Cleary, 1990; Baker et al., 2007; Levine, 2005). Common core curricula in business administration, public administration, and educational leadership are finance, technology, human resources and leadership. Law is not commonly included in core curricula of public administration; see Table 2-1, below. It is also important to note that military science only has leadership courses in common with the other four.

Table 2-1. Common Courses Among Leadership Programs

	Finance	Technology	Human Resources	Leadership	Law	Research Methods	Organizational Theory
Public Administration	X	X	X	X		X	X
Business Administration	X	X	X	X	X	X	X
Educational Leadership	X	X	X	X	X	X	X
Military Science				X			

The various formal education programs differ from short leadership courses in terms of curricula. The short courses have very little finance, technology, human resources or leadership content; rather, they have hints and tips on how to deal with difficult people and strategies for advancing into a leadership position (American Association of Community Colleges, 2007).

It is evident that those who developed curricula for formal leadership programs, regardless of the academic focus, felt that their students should have a core of leadership classes. These included law classes in their area of focus, an understanding of finance, human resources, technology and some type of leadership course. The leadership courses included change management, emotional intelligence or other classes (Yeakey, 2002; Edfelt, 1988; Levine, 2005). Compared to this, seminars and other less formal training typically deal with less systematically organized material (Wallin, 2006; Anderson, 1997). Again, military science in an exception, only offering courses in leadership.

Criticisms

Criticisms of formal leadership programs are similar: they are perceived as not adequately preparing leaders for future positions (Levine, 2004; Edfelt, 1988; Ventriss, 1991; SREB, 2007; Hess & Kelly, 2005). Curiously, these criticisms are from the academicians and the public, but very few come from the practitioners themselves (Ainsworth & Morley, 1995).

Critics of public administration, business administration and educational leadership have concerns about the quality of the faculty, the quality of research by doctoral candidates, the caliber of students admitted to the programs and the coursework, and with the exception of students, military science share similar criticism (Felbinger et al., 1999; Denhardt, 2001; Edfelt, 1988; Hoaas & Wilcox, 1995; Gupta et al., 2007; Murray, 1988; Liberatore & Nydick, 1999; SREB, 2007, Hess & Kelly, 2005; Levine, 2005).

The main concerns about the faculty have been that they are inadequately trained or are trained in other fields (Felbinger et al., 1999; Edfelt, 1988; Hess & Kelly, 2005; Levine, 2007). All detractors commented on the fact that faculty teaching leadership were often trained in other disciplines, or under trained.

Critics of public administration, business administration and educational leadership have been concerned about the quality of students and the quality of research produced by the students (Felbinger et al., 1999; Liberatore & Nydick, 1999; Levine, 2005; Hess & Kelly, 2005; SREB, 2007). Educational leadership programs accepted students with lower GRE scores than other fields such as physics or chemistry (Levine, 2004). Critics of public administration noted that some students are only in the program

to further their career while others had no intention of graduating, but instead liked the idea of being a doctoral candidate (Felbinger et al., 1999). MBA students were criticized for being weak on presentation and communication skills (Felbinger et al., 1999; Liberatore & Nydick, 1999). Critics of research noted that research designs were faulty, due to the lack of emphasis on what high quality research is. Critics additionally found that there were not enough classes in research methodology in many leadership programs (Felbinger et al., 1999; Liberatore & Nydick, 1999; Levine, 2005; Hess & Kelly, 2005; SREB, 2007).

Overall, the quality and choice of program course requirements were questioned (Liberatore & Nydick, 2001; Hoaas & Wilcox, 1996; SREB, 2007). Critics noted that the coursework did not adequately train students, either because of poor design or through omission of important content (Liberatore & Nydick, 2001; Hoaas & Wilcox, 1996, SREB, 2007).

Evaluating Leadership Programs

A central concern of all these programs has been the type of evaluations conducted. Ban and Faerman (1990) discussed these problems, and argued that educational evaluation is more primitive than other types of evaluations (Ban & Faerman, 1990). Specifically, they contend that most evaluations have typically focused on the perceptions of the trainee's reactions and self-evaluations of learning, and these evaluations are given immediately after the programs were finished. Evaluations at this point in time were certainly valuable to departments, but there were no evaluations of the classes in terms of job-related task; i.e., as to how important the courses were to the students once they got a professional position. Ban and Faerman (1990) argued that there

was a need to evaluate the effects of education on both individual job performance and the benefits of the hiring organizations. They conducted a case study on evaluating programs, interviewing employers and alumni of educational leadership programs. They found that it was possible to test the relationship between job performance and education. However, the goals of the programs were difficult to measure and rarely met, and changes to any program based upon alumni job performance took a long time (Ban & Faerman, 1990).

In another study, Glasman, Cibulka and Ashby (2002) found that there is little to no systematic evaluation of leadership programs around the country. There were some programs that evaluated students along seven areas: vision, culture, organizational management, collaboration, contexts, ethical behavior, and work experience. Faculty assessed students along these lines and then self-evaluated their programs based upon how well their students performed in each of these areas (Glasman et al., 2002).

To date, no evaluation design has been employed that gives programs a definitive answer about the relationship between leadership preparation on institutional outcomes (Chenoweth et al., 2002). In other words, there were evaluations of courses, programs, and student satisfaction, but as yet there has been no evaluations investigating the effectiveness of programs to successfully train students in terms of outcomes of the institutions for which they work. The lack of these kinds of studies fuel the criticisms of leadership preparation programs (Levin, 2005; Chenoweth et al., 2002).

Recommendations

All too often, new leaders are armed with theory yet later overwhelmed with reality. Universities have focused on introducing potential administrators to the latest

trends and theories in leadership, but provide few practical skills that apply their

knowledge in the work place (Peel et al., 1998; Winiewski, 2002).

The common recommendations for program change for public administration,

business administration, and educational leadership were developing a mentoring system,

developing real-life problems, and aligning the mission of the program to the type of

student attending. For military science, the most common recommendation was faculty

training, followed by an expectation that cadets receive in different types of leadership

styles.

<div align="center">Indicators of Success</div>

While no evaluations of the quality of leadership have yet examined the issue in

light of institutional success, it is not because those indicators are not available. Indeed,

Katz and Kahn (1969) stated that "the effectiveness of any act of leadership must be

assessed in terms of some specific criterion of organizational functioning" (p. 98). This is

important for defining successful criteria of schools. For example, growth rate, ability to

attract members, efficiency in use of resources and gross productivity are just a few

examples of criteria to which leaders have been charged with the responsibility (Miller &

Boswell, 1979; Pfeiffer & Davis-Blake, 1992; Knapp & Seaks, 1992).

There are many indicators of success for colleges and universities. These include

accreditation, and faculty and administration salaries, to name a two (Miller & Boswell,

1979; Pfeiffer & Davis-Blake, 1992; Knapp & Seaks, 1992). Additionally, popular

magazines such as *U.S. News and World Report,* which offers assessments of the

nation's best colleges and are used by admissions counselors, is important in depicting

indicators of success for all higher education institutions.

Integrated Postsecondary Education Data Systems (IPEDS)

An important data source used to evaluate colleges and universities is the

Integrated Postsecondary Education Data Systems (IPEDS) (Segev & Farjoun, 1999; Orr

et al., 2007). This data base is used by institutions for internal research and for external

comparative purposes (NCES, 2007). For example Orr et al.(2007) used data from IPEDS

to determine the number of graduates in leadership programs. Segev and Farjoun (1999)

used data from IPED and *U.S. News and World report* to examine top ranked business

schools to determine their basic curriculum.

The Higher Education Act in 1992 mandated the completion of IPEDS surveys

for any program accepting federal student financial aid. In 1993, the National Center for

Education Statistics (NCES) began collecting these detailed data from all postsecondary

institutions that met this mandate, including all private institutions from one year

certification programs to four-or-more-year schools.

IPEDS are applicable at all institutions open to the general public. Therefore,

training sites at prisons, military bases, and corporations are not considered separate

institutions or branches, regardless of how the institutional system classifies such training

sites and thus do not report IPEDS data (NCES,2007).

The type of data collected for IPEDS include institutional characteristics, degree

completions, twelve month enrolment, human resources, fall enrollment finances,

financial aid and graduation rates. These data, as well other information, are used to rank

schools in popular periodicals such as *U.S. News and World Report* (NCES, 2007).

Thus, IPEDS data represents the best available data set to examine what is

missing in virtually all the evaluations of leadership training. Namely, it contains a

comprehensive set of outcome indicators used by administration and researchers to assess

(Segev & Farjoun,1999; Orr et al., 2007; NCES, 2007). It is important to note, that not

every indicator is under the direct control of the college or university president. Despite

this, the present study makes extensive use of IPEDS data because it is the most readily

available data to access the organizations success.

Finally an additional advantage in using IPEDS data is that it contains the

Carnegie Classification system. This system allows comparisons of institutions on a

highly detailed level. The full Carnegie system includes 52 classifications which range

from the largest and most prestigious four or more year schools such as Harvard and

Columbia to small post secondary institutions that are concerned with vocational training

such as cosmetology schools (carnegiefoundation.org, 2006). This mission of these types

of schools differs substantially. These are explained in detail in Appendix A.

Accreditation

The criteria for accreditation are indicators of higher education success. An

important function of accreditation is the validation of the certificates and degrees

awarded. Employers and students alike state that accreditation adds value to the

educational credentials that the institution awards (Miller & Boswell, 1979).

Evaluation of student achievement is the centerpiece of credentialing. Credentials

only have meaning and social utility if the college or university distinguishes itself

among types and levels of competency and learning (Miller & Boswell, 1979). For

reasons of economy and efficiency, the postsecondary education community has

cooperated through its organizations to develop and administer national examination

programs, the results of which are used by thousands of institutions.

Faculty and Administrators' Salaries and Benefits

Salaries and benefit compensation are yet another indicator of schools' success. Higher salaries for administrators have been shown to correlate to lower personnel turnover and thus create stability in schools (Pfeiffer & Davis-Blake, 1992). Pfeiffer went on to discuss that a person's reaction to salary distribution is affected by the perception of where they stand on the distribution continuum. This affects one's performance and the performance of students (Pfeiffer & Davis-Blake, 1992).

Tang, Tang and Tang (2000) also found that presidents' compensation alone is predictive of a number of indicators of success. They examined 190 private colleges and universities and found that a university CEO's pay was related to the instructional expenditure, the type of institution, the existence of professional schools, and academic reputation and ranking. Thus, higher salaries can be related to better college and university outcomes.

Student Graduation Rates

Student graduation rates are a useful measure of success for colleges and universities. Colleges that do not have high graduation have long been perceived to be inferior to those with a better capability to retain students. There is also research that shows that the type of college (two-year vs. four) and the graduation rate of colleges are predictors of guaranteed loan defaults (Knapp & Seaks, 1992); schools with higher graduation rates had lower loan defaults.

U.S. News and World Report Indicators of Success

A widely used set of indicators by college administrators, parents, and students, including those just mentioned, is *U.S. News and World Report's* "Best Colleges and

Universities" issue, published annually. It is frequently consulted by students, parents and educational administrators. The popularity of the rankings make them the de facto standard of success for colleges and universities. The magazine uses data from IPEDS (*U.S. News and World Report,* 2007).

Among the many indicators of success for colleges and universities, *U.S. News and World Report* (2007) used the following information to rank schools: peer assessment scores, average freshman retention rate, graduation rates, faculty resources rank, the proportion of classes with 50 or more students, the proportion of full-time faculty, student selectivity (i.e., the proportion of students who are test in the 25th – 75th percentile on SAT/ACT), financial resources, acceptance rate, graduation rate performance and alumni giving rate. These indicators are outlined below.

Peer Assessment Score

Peer assessment is weighed as 25 percent of overall college ranking. This ranking is determined by a self-reporting survey that is sent out to presidents, provosts and deans asking them to rate other schools. It is designed to measure intangibles such as faculty dedication and teaching. The survey is a Likert scale rating from one to five, with one being marginal and five distinguished (*U.S. News and World Report,* 2007). This dimension is not used in the IPEDS data set.

Average Freshman Retention Rate/Graduation Rate

The average freshman retention rate is defined as the proportion of freshmen who return the next year. The higher this proportion it is assumed, the more likely it is that the school offers classes and services that students need to succeed. This category also measures the graduation rate: that is, the average proportion of a graduating class who

earn a degree in one and a half time the average graduation time. Graduation time is typically six years or less (*U.S. News and World Report*, 2007).

Faculty Resources Rank/Percent Faculty who are Full Time

This category includes six factors. Two factors deal with class size: the number of students who are in classes that have 20 or fewer students and the number of classes with more than 50 students. The other factors are faculty pay/benefits, the proportion of professors with the highest degree in their fields, the student-faculty ratio, and the proportion of faculty holding full-time appointments (*U.S. News and World Report*, 2007).

Student Selectivity

This category measures the caliber of students who attend the school. It uses the average SAT or ACT scores of the student body, the proportion of enrolled freshman who graduated in the top 10 percent of their high school class, and the ratio of admissions to applicants (*U.S. News and World Report*, 2007).

Financial Resources

This category measures the average spending per student on instruction, research, services, and related expenditures. The higher the per-student spending, the more services it is assumed the university is providing for the student (*U.S. News and World Report*, 2007).

Graduation Rate Performance

This category indicates the effect of the college's programs and policies on graduation rates of students after controlling for spending and student aptitude. It is measured by the difference between the school's six-year graduation rate and the

predicted graduation rate. If the graduation rate is higher than predicted, the college is said to be enhancing achievement (*U.S. News and World Report*, 2007).

Alumni Giving Rate

Another category is the rate of alumni giving. This is measured by the percent of alumni who are giving the school money in an academic year. This is thought to be a measure of former students' satisfaction with the school and loyalty it engendered (*U.S. News and World Report,* 2007).

School Rankings

Schools are ranked by *U.S. News and World Report* by calculating the sum of the scores in each of the above categories. The distribution of scores is then normalized: the school with the top rank in each category is assigned a value of 100, and the scores for other schools are calculated proportionately. Final scores for each ranked school are rounded to the nearest whole number and ranked in descending order. Schools that receive the same rank are listed in alphabetical order (*U.S. News and World Report, 2007*).

As is demonstrated above, there are many indicators of success for colleges and universities. These indicators are commonly used by high schools to direct students to appropriate colleges and they are popular benchmarks examined by students and parents alike in selecting postsecondary careers. These indicators are also used by the colleges themselves for comparisons and marketing purposes (*U.S. News and World Report, 2007*).

Chapter Two Summary

The term "leadership" is ubiquitous in common discourse. Political candidates claim they have it, organizations often seek it, and multiple academic disciplines profess to teach it. Unfortunately, research on leadership has done little to determine what distinguishes good leaders from bad or how to train leaders. A quote from Bennis and Nanus (1985) best describes this situation:

> Literally thousands of empirical investigations of leaders have been conducted in the last seventy-five years alone, but no clear and unequivocal understanding exists as to what distinguishes leaders from non-leaders, and perhaps more important what distinguishes effective leaders form ineffective leaders (p 52).

There is research showing that leaders contribute to the success or the failure of organizations (Etzioni, 1971; Leithwood et al., 2004; Silverthorne & Wang, 2001). Leadership styles can affect business outcomes (Silverthorne & Wang, 2001). Interestingly, there is little evidence that one educational style is better than another. Public administration, business administration and educational leadership programs all have similar histories. They all started as academic fields around the beginning of the 20th century (Henry, 1957; Bournemann, 1961; Cooper & Boyd, 1987). These programs had their beginnings with scientific management and all underwent reform in the 1940s (Henry, 1957; Bournemann, 1961; Cooper & Boyd, 1987).

There are some strong similarities between these programs in terms of course selections. Common courses include law, finance, technology, human resources and some type of management/leadership courses , with military science being an exception only offering multiple courses in leadership (Gregorowicz & Hegji, 1998; Cleary, 1990; Baker

et al., 2007; Levine, 2005, GoArmy, 2008). It is apparent from the overlap in course-work between programs that these are the tools leaders are thought to need to learn in order to enter a leadership position.

There is also a great deal of similarity in criticism of business administration, public administration and educational leadership. These include the credentials of faculty teaching the programs, the caliber of students admitted to the programs, the quality of research, and the quality of the curriculum (Felbinger et al., 1999; Denhardt, 2001; Edfelt, 1988; Hoaas & Willcox, 1995; Gupta et al., 2007; Murray, 1988; Liberatore & Nydick, 1999; SREB, 2007, Hess & Kelly, 2005; Levine, 2005). These criticisms have led to program reform, which in turn has received subsequent criticism.

Despite reform and the obvious need for evaluations to determine the effectiveness of these programs, evaluations of these programs have been viewed as flawed (Ban & Faerman, 1990). Most evaluations have been focused on the trainees' reactions and evaluations of learning, and there are few evaluations that focus on the outcomes of the institutions for which the trainees work (Ban & Faerman, 1990; Glasman et al., 2002).

There are indicators of success that are often used by colleges, parents and students. These indicators are often derived from IPEDS data, such as *U.S. News and World Report.* These data have been used by researches to compare programs and successful institutions ((Miller & Boswell, 1979; Pfeiffer & Davis-Blake, 1992; Knapp & Seaks, 1992).

Despite the shortcomings of leadership programs, no research has yet to make a systematic comparison of leaders who have such education and those who have not. To

argue that leadership programs are flawed is one thing, but to claim that they make no difference is quite another. There is no way to assess the latter claim without conducting the research proposed here.

CHAPTER THREE

METHODOLOGY

Introduction

This chapter describes the research methodology and procedures used to address the overarching question of this research: to determine how, if at all, the academic preparations of college leaders relative to a formal leadership education are related to indicators of institutional success. The overall research design, sample size and selection, instrumentation, procedures and data analysis are addressed. The validity of the design is also considered

Research Design

As a result of those areas of concern identified in the previous review of related literature, this study employed a mixed-methodological approach using both quantitative and qualitative techniques in a sequential manner to address the overarching question. Creswell (1998) described a sequential procedure whereby the researcher seeks to elaborate on and expand the finding of one method with another. The present study begins with a secondary analysis of a public data set using inferential analysis in which two specific groups of college leaders will be compared: those who have formal leadership education and those who do not. Formal leadership of a president would be embodied in an advanced degree in one or more of these fields: public administration, business administration, educational leadership or a degree in military science. The quantitative analysis included an examination of online biographies and using dissertation abstracts to determine the academic preparation of college presidents. Comparisons of IPEDS indicators of success was made between the two groups of presidents. Finally, this

research used content analysis of personal interviews to determine whether any

coursework or training was deemed valuable by university presidents. That is, did they

refer to it in monitoring and creating successful outcomes for their institutions.

Population

The analysis will be based on 200 randomly-selected schools from IPEDS, a

public data clearing-house which lists all schools that receive federal funding

(nces.ed.gov, 2007). There are about 7,000 schools in this database, nearly all of the

colleges and universities in the nation (nces.ed.gov, 2007). The Carnegie classification of

VS2 (very small two-year schools where the fall enrollment data show full time

enrollment of fewer than 500 students and where only associate degrees or certifications

are granted) will not be used, as these tend to be overwhelmingly institutions such as

beauty schools or other specialty schools which differ substantially from the population

of interest. The database also contains schools from U.S. protectorates. In order to make

the population more homogenous, the analysis focused on schools from the 50 states.

Excluding protectorate and VS2 schools, the total population is about 5,000 institutions.

A sample size of 200 allows estimation at a 95% confidence interval with less than ±10%

error (Krelinger, 1989).

For the content analysis, six presidents from each group (i.e., those with formal

leadership education and those without) were purposefully selected as described in

Creswell (1998). The presidents from each group will be selected from among the top

performers, as were at least three presidents from unsuccessful schools as determined by

indicators of success. These interviews will be subjected to a content analysis qualitative

approach as described by Krippendorf (2003).

Research Questions

For the purpose of this study, all leaders—chancellors, directors, CEOs, etc.—will be defined as college presidents. If leadership education has its intended effect, it is expected that those with formal leadership education as compared to those without formal education will preside over organizations having higher levels of success, as indicated by better than average graduation rates, financial aid, degree completions, faculty salaries, and school finances. The sub-questions of this study are:

1. What is the distribution of leaders with formal leadership education in colleges and universities across Carnegie classifications?

2. What is the relationship between formal leadership education and various indicators of success such as enrollments, program completion, graduation rates, faculty and staff finances, school financial data, and student financial aid?

3. Are there differences between those leaders who have and have not had a formal leadership education and are and are not successful on the following dimensions?

   i. Within each group what were the most successful outcomes versus the least successful?

   ii. How do individual leadership situations, such as degree type and Carnegie classification, compare to indicators of success?

4. Do leaders believe that formal leadership education prepares them for understanding and enhancing indicators of success such as graduation rates, faculty salaries, scholarship monies and/financial aid, and school finances?

5. Finally, what do leaders find valuable in their education or experiences (for example, do they site any leadership training?)

Instrumentation

Data from IPEDS was used for the quantitative analysis. The current IPEDS program is web-based and available to the public (NCES, 2007). The data collected include areas such as institutional characteristics, degree completion data, enrollments, salary data for faculty and staff, institutional finances and graduation rates. In short, these are the very types of outcome measures of interest in this study (nces.ed.gov, 2007).

One of the variables used in IPEDS is the Carnegie classification. The Carnegie classification of institutions of higher education is a report categorizing all accredited degree-granting colleges and universities in the United States. It is widely used as a basis for comparison of colleges and universities. The current classification system is similar to the one first developed in the 1970s (carnegiefoundation.org, 2006). A full description of the Carnegie system is given in Appendix A.

The Carnegie classification system is useful as a variable. As such, it allows for making comparisons of the relationship of leadership education for similar institutions. This can then be used to address the first sub-question: are the college presidents in the sample with leadership education relatively evenly distributed across Carnegie classification, or do they cluster in some segments?

The Carnegie system has three basic categories: undergraduate, graduate, and "size and setting." There are 17 subcategories each for undergraduate and size and setting, and 18 for the graduate category (carnegiefoundation.org, 2006). These categories are used by most universities and are often posted on their websites.

For the purpose of this study, the Carnegie system will be combined into nine

distinct groups. The total number of classifications—54 groups—is too unwieldy. Table

3.1 shows that the national distribution of colleges and universities is relatively even

between the three size levels. However, those granting only Associate degrees are

concentrated among those with smaller enrollments while nearly half of those granting

graduate degrees are found among schools with the greatest enrollments.

Table 3-1

Carnegie Classifications

Number of students	Level of Institution (type of degrees granted			
	Four or more years	Between two and four years	Less then two	Totals
<1000 Students	39.7% 1111 cases	53.7 % 1220 cases	94.9 % 1702 cases	58.7 % 4033 cases
1000-4,999 Students	37.2 % 1040 cases	25.6 % 582 cases	2.0 % 36 cases	24.2 % 1658 cases
>5000 Students	21.0 % 587 cases	18.5 % 421 cases	0.1 % 1 case	14.7 % 1009 cases
Totals	40.7 % 2796 Cases	33.1 % 2272 cases	26.1 % 1793 cases	100% 6865 cases

Institutional characteristics include an institution's name, address, telephone

numbers and web address. Also included are mission statements, educational offerings

that cover the calendar system and award levels. Finally, this category contains admission

requirements, test scores and student fees such as tuition, room and board, and books

(NCES, 2007).

Degree completion data are included for all degrees including certificates of less than one year to post-graduate awards. These data include the demographic information on race/ethnicity, gender of recipient, and field of study (NCES, 2007).

The twelve-month enrollment data include the type of awards and certificates granted in the last 12 months. There are two 12-month periods: one is from July 1 to June 30, and the other is from September 1 to August 31. Included are the unduplicated headcount, credit hours and full-time enrollment, which are used in computing expenses by function per full-time enrollment (FTE) and revenues per FTE (NCES, 2007).

The human resource data available include headcount information such as full- and part-time status, faculty function or occupational category, and faculty status and tenure. Total staffing in the fall closely follows human resource data and includes the number of full and part-time staff as of November 1. These data are collected biennially and include demographic information on race/ethnicity and gender of the faculty. These data also include contract length and salary intervals for both faculty and staff, the number of part-time employees by primary occupational field, tenured faculty by academic rank, and the number of new hires by primary occupational activity (NCES, 2007).

Salary data are collected from degree-granting institutions for their full-time faculty. These include race, gender, length of contract, total salary outlay, and fringe benefits information (NCES, 2007).

The fall enrollment data are collected for award levels ranging from postsecondary to certificates on less than one year. Specifically, the data include the number of full- and part-time students enrolled in the fall, students enrolled in courses

that count as credits toward a degree or other formal award, students enrolled in courses that are part of a vocational or occupational program, and high school students taking regular courses for credit. (NCES, 2007)

The financial data included can be used to describe the financial condition of the institution. The specific data collected include revenues by source (e.g. tuition, government grants and contracts, and private gifts), expenses by function such as instruction research and academic support, physical plant assets and debt, and endowment investments (NCES, 2007).

Data for financial aid are collected for full-time, first-time degree- and certificate-seeking undergraduate students. Data are collected regarding general grants, state and local government grants, institutional grants and loans (NCES, 2007).

Graduation rates are available for award levels ranging from postsecondary certificates of less than one year to doctoral degrees. Data include the number of students entering the institution as full-time, first-time degree- or certificate-seeking students in a particular year, the number of students completing their program within a time equal to one and a half times the normal period of time, and the number of students who transferred to other institutions and/or received athletic financial aid (NCES, 2007)

Variables and Level of Data

The independent variable will be whether or not the schools have persons in leadership positions with formal leadership education. This is a nominal level of data. The type of education—that is, an advanced degree in public administration, business administration, and educational leadership or any degree in military science—is also a nominal level variable. The graduation rates, financial aid, degree completion, faculty

salaries and finance will be defined as the dependent variables, all of which are treated as

a ratio of scales.

Data Collection Instrument

Schools from IPEDS will be randomly selected, and the presidents' education will

be identified. A complete discussion of this can be found in the Procedures section below.

The data about the university, president and degree will be entered in an Excel file. An

example of this file is given in Table 3-2. This same data collection instrument will be

used for leaders without formal leadership training.

Table 3-2

Example of Quantitative Data Collection for Presidents' Degree and Institution

Administration

College	President	Degree
J F Drake State Technical College	Helen T. McAlpine	Ed.D
George C Wallace Community College-Dothan	Linda C Young	Ed.D
Gateway Community College	Eugene Giovannini	Ed.D Community College education
Scottsdale community college	Arthur Decabooter	Ed.D.

Qualitative Research

The primary data collection tool of the qualitative portion of this study will be a

telephone interview (see Appendix C). As described by Creswell (1998), it will be a

semi-structured interview. The research sub-questions that will be addressed in the

interview are: How does formal leadership education prepare college presidents for

understanding and enhancing indicators of success such as graduation rates, faculty

salaries, scholarship monies and financial aid, and school finances? Also, what was

deemed most valuable in presidents' education or experiences? The following questions

are designed to elicit that information and constitute the interview protocol:

1. How do you measure success for your institution? What are the indicators of
    success, and who determines those indicators?

2. What is your experience with leadership/management education?

3. What (if any) coursework, education, or experiences have helped you with
    understanding student graduation rates?

4. What (if any) coursework, education, or experiences have helped you with
    understanding faculty salaries and benefits?

5. What (if any) coursework, education, or experiences have helped you with
    understanding financial aid and scholarships?

6. What (if any) coursework, education, or experiences have helped you with
    understanding school finances?

7. How do you feel that what you learned in your leadership
    education/experience has been helpful?

8. Is there anything in your formal leadership education/experience that has not
    worked?

9. Is there anything else you would like to discuss about your leadership
    experience?

<div align="center">Procedure</div>

A general overview of the mixed methodology procedure used in this research is

given in Figure 3-1. This shows the quantitative analysis, with the population taken from

IPEDS. Based upon the results of the quantitative analysis the interviewees were

selected. The interviews from the college presidents were used to triangulate, verify and

deepen inquiry initiated in the quantitative data.

Figure 3-1

General overview of the procedure used in this research
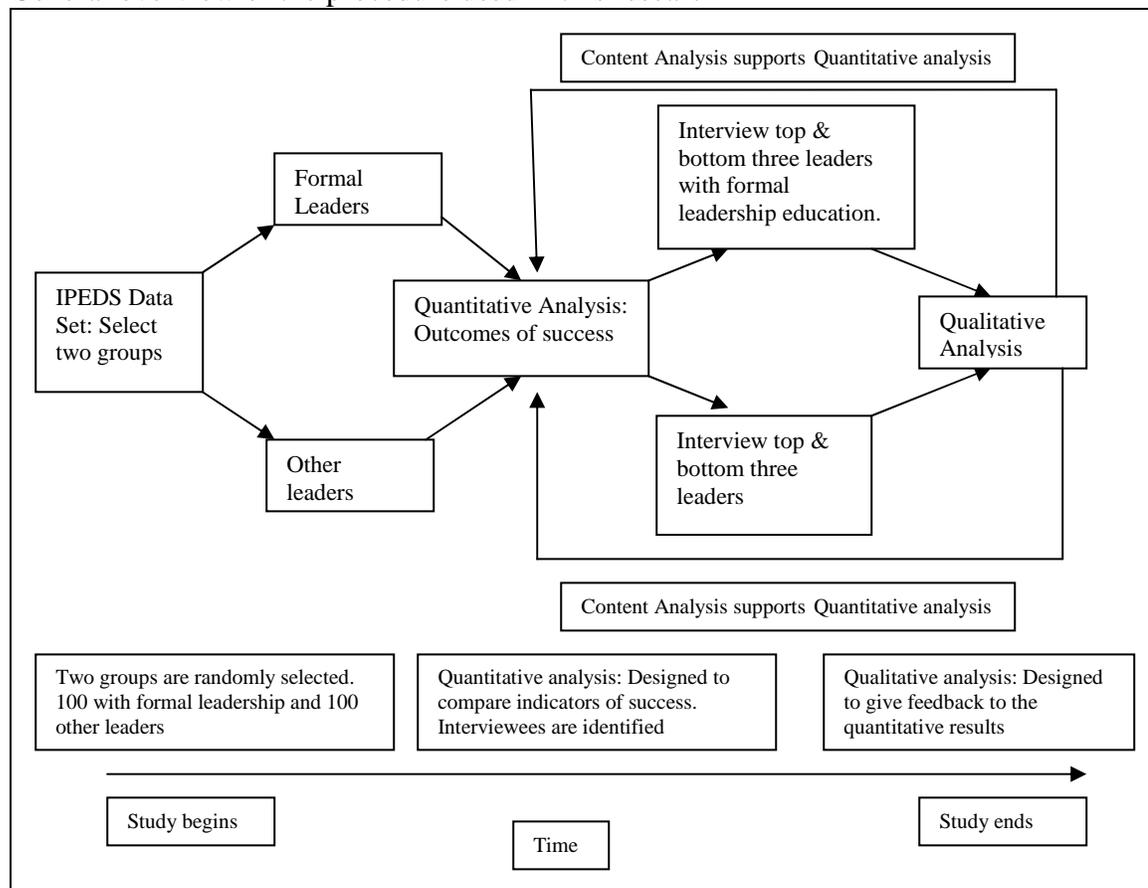
The numeric data were collected first; then the experiential information will be

collected. The numeric information was used to find whether there is a positive

correlation between indicators of school success such as program completion, graduation

rates, faculty and staff finances, school financial data, and student financial aid. If the

sample permits, it may be possible to determine if one type of leadership education (such

as public administration) is better then another. Schools that have incomplete data, or that

are unable to determine the type of degree the president has, were excluded out and a new school for that group was selected as described below.

The IPEDS database was downloaded and imported into an SPSS file. A random sample selection option from SPSS was used to select schools for this study. Schools were selected until there were one hundred schools that have leaders with formal leadership education and one hundred schools that do not. Schools were selected until both groups were filled; as one group filled first, schools were continually selected until the second group was filled. This is called sampling to criterion (Creswell, 1998). The president's education was determined by using their online biography or by searching for their name as the author in dissertation abstracts.

Once the samples were selected a new variable was created in SPSS along with all the other data, which indicated the type of the education the president has. Table 3-3 shows the code values for each degree.

Table 3-3.

Code values /degree

Code	Degree
1	Masters/Ph.D. Education leadership
2	Masters/Ph.D of Business Administration
3	Masters/Ph.D. of Public Policy/Administration
4	Humanities (English, History, MFA, etc.)
5	Psychology/Behavioral Sciences (Sociology, Psychology, Social
	Psychology, etc.)
6	Physical Sciences (physics, chemistry, geology, etc.)
7	Biological Science (Biology, Biochemistry, Wildlife Biology, etc.),
8	Professional (Engineering, M.D., J.D., etc.)

Success for colleges and universities was defined as having a 5% increase over the mean one or all of the following: graduation rates, financial aid, degree completion, faculty salaries and/or finance (F.W. Reed Ph.D. personal communication, April 7, 2008). Additionally, a correlation analysis was performed to determine if leadership correlates to any or all of these categories.

A content analysis was then performed after the quantitative analysis was completed, colleges that were the most successful having a 5% mean increase for the top performers and a 5% mean decrease for the bottom performers were identified. Three presidents in each group were chosen, for a total of 12 presidents in the qualitative

analysis. To better understand the experiences of college and university leaders who have formal leadership education, a qualitative survey (Appendix C) was used. The presidents were selected to maximize the greatest mean difference in any of the categories of success as defined earlier. Selection started with the top performers in each group and proceeded down the list until three from each group were selected. Then the presidents from the lowest performers were selected from the bottom of the list and proceeding upward until three from each group were selected. The information from the interviews was used for content analysis

Smelser and Baltes (2001), editors of the *International Encyclopedia of Social and Behavioral Science,* described content analysis as a qualitative technique for mapping symbolic data (in this case, interview data) into a matrix suitable for analysis. This research used content analysis to determine the type of education and/or experience that successful leaders found useful. Because there were interviews from both groups—presidents with and without formal leadership education—the questions were tailored specifically for the group being interviewed. If they have no formal education, the interview was focused on their experience of leadership during their tenure as president.

Experiential data were collected in order to gain a deeper understanding of leaders' experience and how they have used their formal education or experience to influence indicators of success during their tenure. This assessed self-perceptions of the strengths, weaknesses and successes of their leadership experiences.

In scheduling the interviews, administrative assistants (who are the most likely gatekeepers) were contacted in order to gain access to the president. Creswell (1998, p. 117) defined the gatekeeper as the individual who is a member or has an insider status

with a group. In this case, that person was the president's administrative assistant. The

assistant was contacted via phone and a letter (Appendix E), which described the research

and contained the consent form (Appendix D). A prepaid self-addressed envelope was

included as to maximize the possibility that the consent form is returned. A follow-up

phone call was made to ensure receipt of the letter. An appointment for the subsequent

interview was made at that time. A letter of introduction from The University of

Montana's School of Education Dean was included with the introductory letter. This was

be done to improve the chances of interview appointments.

Confidentiality

The standards from The University of Montana's Institutional Review Board were

used in part to obtain the interview. The primary concern of this body is to safeguard

against any unethical features. As outlined in the consent form and the introductory letter,

a president could have removed him or herself from the study at any time however, none

chose to do so. Also included in the letter are contact information for questions or

assistance and an invitation to request survey results. Confidentiality was maintained by

not providing names or locations of the presidents interviewed in the results. A user code

was created for the presidents' interview; only the researcher will know the name and

location of the presidents interviewed. All references in this research to presidents

interviewed were made by user code and not name/location.

Data Analysis

Quantitative Analysis

The quantitative analysis consisted of two parts. In the first part, mean differences

and t-tests (leaders vs. no leaders) were calculated with the selected indicators of success

such as program completion, graduation rates, faculty and staff finances, school financial

data, and student financial aid. This addressed the questions of whether leadership

education makes a difference in indicators of success. Finally, an odds ratio was

calculated for presidents with formal leadership education verses those with none. This

measure calculates the probability of an event happening in one group (in this case one of

the indicators of success) compared to event happening in the other group (Blalock,

1979). This calculation determined if success is more probable with presidents with

formal leadership education compared to those with none.

A Priori Considerations

The null hypothesis is that there will be no significant differences in the

performances of universities whose presidents have formal leadership education and

those that do not. Also, there will be no significant differences between the different

types of schools with different Carnegie classifications.

Homoscedasticity (equal variance) is important because it makes the F-value

robust and was met by a sufficient sample size—in this case, 200 (100 in each group)

(Kerlinger, 1986). Substantive importance was defined as a mean difference of 5% in

graduation rates, financial aid, degree completion, faculty salaries and/or finances of the

institution. A one tailed t-test was used. As by convention, the tail of interest has to be

defined prior the research (Blalock, 1979) and in this case only the right tail was used.

That is because college presidents with leadership degrees were expected to do better

than those without a formal leadership degree. The one tail significance will be set at

0.05.

Content Analysis

This research used strategies described by Smelser and Baltes (2001), Krippendorf (2003), and Creswell (1998) in order to analyze the qualitative data. These three types of analysis are data coding, data matrix generation, and triangulation.

Data were reduced by developing codes and/or categories. These codes and categories were further reduced into themes which were placed into a data matrix. This can be referred to as open coding (Creswell, 1998). An example of this data matrix is given in Table 3-4. The elements of the matrix are the codes or categories, the number of occurrences of the categories, and the subjects identified as having that category in their experience.

Table 3-4

Example of Data Matrix

Subject ID	Categories	Number of occurrences
3	1=graduation rates	2
2	2=faculty resources	6
3	2=faculty resources	4
6	3=completions	1

During the coding phase, a review of all the notes and transcripts as well as the online biographies was completed as described by Creswell (1998). The goal is to reduce the information into themes that can be used to see the relevance between the content analysis and the statistical data.

In triangulation, the researcher uses multiple and different sources, methods and theories to provide corroborating evidence. This ensured the identification of consistent themes (Creswell, 1998). Triangulation included a review of the quantitative analysis and reading biographies to determine if the analysis is consistent.

Validity of the Study

External Threats to Validity

External validity threats are limitations in making generalizations about results to others; that is, how well the conclusions of a study apply to other people in other places and times (Kerlinger, 1986). This study endeavored to determine whether there is a high degree of generalizability of the effect of leadership on institutional outcomes, as discussed below. Following Kerlinger (1988), a careful consideration of population, ecological validity, and temporal validity was made.

Recall that the population will drawn from IPEDS (which is virtually the entire population). Therefore, the results of this study will be generalizable to only the school types and size included, except that VS2 schools have been excluded. Although there are leadership programs other than military science, public administration, business administration and educational leadership, this research is only be generalizable to these types of education.

Ecological validity is the extent to which results of a study can be generalized across settings or environmental conditions, (Kerlinger, 1988). It does not affect this study, as there is no experimental manipulation.

Finally, temporal validity was considered. Although this study examined indicators of success at one point in time, there are at least three factors that may affect

the generalizability of the study. First is the time that the leaders have been at the school. For example, if a new president has taken over an-already-successful school then that president was counted as successful. Second is the time the leaders have been away from graduate school, and third is that personnel working with the leader may have changed. However, as this study examines the correlation between leadership education and indicators of success, these considerations will not affect the generalizability of the study.

Internal Threats to Validity

Internal validity is related to the degree to which the input (independent variable) caused the output (dependent variable) to change; i.e. this speaks to the trustworthiness of the connection between the independent and dependent variable (Kerlinger, 1988). This study is not be affected by internal threats to validity such as history, maturation, pre-testing, instrumentation, non-equivalence, regression, mortality and attrition rates, as the data is only one point in time and there are no pre- or post-tests.

The rate of turnover in presidents can give a misleading conclusion about the effects of leadership. For example, success may be readily attributed to presidents when they have been in the position for a long time, but it will be less certain with presidents that have only served a short time. This is somewhat controlled by the data in IPEDS, because it is always a year old, so the presidents will have served at least one year in their position.

Maturation, pre-testing, and regression were unlikely to effect this study. There is no testing, and thus there will be no learning from the pre-test, and there will be no regression toward the mean. Also, as this study is not following the subjects over time, but rather their schools, maturation does not have an effect.

Chapter Three Summary

This research used a mixed methodology approach in order to determine the effects leadership has on institutional outcomes. This approach first examined the distribution and extent of college presidents with formal leadership education. It then identified colleges that are successful along indicators of success such as enrollments, program completion, graduation rates, faculty and staff finances, school financial data, and student financial aid. Once these schools were identified, the distribution of presidents with formal leadership education was determined. A statistical analysis was performed to determine if leaders with formal leadership education affect outcomes of their institutions.

A content analysis was then performed on the three top and three bottom performing schools in each group; their presidents were interviewed. The data from the interview transcripts was used to determine what influences the formal education or experience had on the school leader. This part of the study focused on if the education and/or experiences had any impact on the monitoring and influencing of school outcomes.

CHAPTER FOUR

RESULTS

Introduction

The purpose of this study was to determine whether a correlation exists between leadership training and indicators of success for colleges and universities. This study used a mixed methodology to answer this over-arching question. First a quantitative approach was used and then a content analysis of interview transcription was employed.

In addition to this primary concern, some related sub-questions were addressed: What is the distribution of leaders with formal leadership education in colleges and universities across Carnegie classifications? What is the relationship between formal leadership education and various indicators of success, such as enrollments, program completion, graduation rates, faculty and staff finances, school financial data, and student financial aid? Are there differences between those leaders who have and have not had a formal leadership education and are and are not successful? Within each group what were the most successful outcomes versus the least successful? How do individual leadership situations, such as degree type and Carnegie classification, compare to indicators of success?

In addition to these sub-questions examined quantitatively, some additional topics were addressed by content analysis of interviews with a sample of presidents. These sub-questions are: Do leaders believe that formal leadership education prepares them for understanding and enhancing indicators of success such as graduation rates, faculty salaries, scholarship monies and/financial aid, and school finances? Finally, what do leaders find valuable in their education or experiences?

Starting with a description of the population and sample, the remainder of this chapter examines comparisons of leaders with and without formal leadership education in terms of indicators of success. Additionally, this chapter will examine comparisons of leadership types from within each group based upon indicators of success. Finally, the remainder of the chapter will examine data from the content analysis, including how the interviewees were selected from the quantitative portion of the study, differences between leaders who are successful in terms of the indicators of success as compared to leaders who were not successful, and links between the content analysis and the quantitative study.

Quantitative Analysis

Description of the Population

This study uses the single most comprehensive source of information on colleges and universities available—the Integrated Post Secondary Education Data Systems (IPEDS). IPEDS is a higher education data clearing house, where all institutions receiving federal funds must submit selected school data. These data include student financial aid, graduation rates, faculty salaries and benefits, and admission data such as acceptance rate, tuition and other costs. Included in the data is the Carnegie Classification system. In the current Carnegie Classification system there are three main categories of schools and a total of 54 sub-groups (carnegiefoundation.org, 2006). The total of 54 Carnegie categories are based on distinctions that are unimportant for this research so the sample was organized in terms of nine groups. For example, there are 16 categories of sizes ranging in 500 student increments from 500 to greater than 40,000. Similar fine distinctions are made for function and setting of the schools. Moreover, with

a total sample of 200, even if the selected institution were found to be as evenly distributed as possible, there would not be more than four cases per category and it would be impossible to identify important trends among such a large number of cells.

As mentioned earlier in chapter two, very small schools of less than 500 students, known as Carnegie classification VS2 schools, were excluded from consideration because they tended to be cosmetology schools and other specialized schools. From the remaining population, 200 randomly-selected colleges were used in this study. One hundred universities where the presidents held formal leadership degrees were selected and one hundred were selected with college presidents with any degree outside of the leadership fields. The type of degree held by the president was determined by examining online biographies or dissertation abstracts from the randomly-selected presidents.

The sampling criteria was obtained by random-sampling techniques with 100 of each school type—presidents with and without formal leadership training. After the criterion of 100 schools with presidents who had no formal leadership education was complete, eighty-two schools with presidents who had formal leadership training had also been selected. Schools continued to be selected randomly until the group of 100 presidents with formal leadership training was established.

Table 4-1, below, shows the distribution of level and size of institutions according to the consolidated Carnegie classification discussed above. Figures for the population are shown in bold and those for the sample are italicized. After the removal of VS2 schools, very few institutions granting certificates/degrees in programs of less than two years remained. Turning to the more comprehensive schools, it can be seen that the smallest schools are under-represented in the sample and the largest ones are over-

represented. For example, 21.5 percent of the small schools with two-to-less than four-year programs are found in the population compared to 6.6 percent in the sample. Similarly, the population contains 33.0 percent of schools with such programs compared to 48.0 percent in the sample. A like disparity exists for institutions with four-or-more year programs. However, the distributions of intermediate sized-institutions among those with at least two-year programs in the sample are highly similar in the rates found in the population.

Table 4-1

Distribution of Institutions: Level (type of degree) and Size (number of students) for Population (**bold**) and Sample (*italics*): percentages

Size of Student body	Level			
	Less than two years	Two-to-less than four-years	Four-or-more years	Total
Less than 1,000	**76.3 %** *0.0%*	**21.5%** 6.6%	**19.6%** *12.0%*	**22.5%** *10%*
1,000 to less than 5,000	**22.9** *0.5*	**45.3** *45.3*	**51.1** *48.3*	**47.9** *47.5*
5,000 or more	**0.07** *0.0*	**33.0** 48.0	**29.1** *39.5*	**29.5** *42.5*
Total (number of cases)	**(131)** *(1)*	**(1269)** *(75)*	**(2013)** *(124)*	**(3413)** (200)

Table 4-2 utilizes the same format as Table 4-1. Specifically, the level of programs offered (number of years) is used as the head variable and the size of the school in terms of number of students is on the stub. Each cell has two entries. The figures in

bold represent the percent of college presidents with formal leadership training and those

in italics refer to their counterparts without such training. Among intermediate sized

schools (1,000 to less than 5,000 students), those with formal leadership training are

somewhat under-represented in schools with two-to-less than four-year programs (42.9

compared to 50.0%) and correspondingly over represented in middle-sized schools with

programs of four and more years duration (58.8 *vs*. 42.2%). The pattern is the reverse for

the larger schools: 51.0 *vs*. 41.3% for those with two-to-less than four-year programs and

31.4 *vs*. 45.2% for the schools with the most comprehensive programs. Despite some

departures from the distribution in the population, the sample of those with formal

leadership training and those without, like the population itself, is concentrated in four

categories: intermediate and large sized schools having either programs of two-to-less

than four-years or having programs of four-or-more years duration.

Table 4-2

Distribution of Leaders with (**bold**) and without (*italics*) Formal Leadership Training

Across Level (type of degree) and Size (number of students) of Institution: percentages

Size of Student body	Level			
	Less than two years	Two to less than four-years	Four-or-more years	Total
Less than 1,000	**0.0 %** *0.0%*	**6.1%** *7.7%*	**9.8%** *13.7%*	**8.0%** *12.0%*
1,000 to less than 5,000	**0.0** *100*	**42.9** *50.0*	**58.8** *41.2*	**51.0** *44.0*
5,000 or more	**0.0** *0.0*	**51.0** *42.3*	**31.4** *45.2*	**41.0** *44.0*
Total (number of cases)	**(0)** *(1)*	**(49)** *(26)*	**(51)** *(73)*	**(100)** *(100)*

There seems to be a niche of school types in which college president with formal leadership education work. This shows that two-to-four-year colleges in general and medium and large two-to-four-year colleges in particular have a greater concentration of presidents who have formal leadership education.

Degree and Carnegie Classification

This section considers the distribution of leaders within each group, *i.e.,* those with formal leadership education and other leaders. There are four formal leadership types of potential interest: educational leadership, business administration, public administration, and military science. None of the schools that had presidents with formal leadership education had any mention of formal military leadership education. Accordingly, this type of leadership training is not considered further. For the group with no formal leadership training, the highest degree earned was recorded.

Table 4-3 is limited to the types of formal leadership training among level and size of schools. It is similar to the previous two tables with two exceptions. Inasmuch as there were no presidents with formal leadership training among schools with more limited offerings (degrees or certificates taking less than two years), that entire category is omitted—leaving two columns. The other difference is that because three types of formal leadership training were encountered in the sample, each of the six cells has three entries: educational leadership is bolded, MBA experience is shown in italics, and public administration is shown in brackets.

The distribution overwhelmingly favors those with formal education in educational leadership (84 percent of the total of 100 leaders with formal training). And

as was seen for all with formal leadership training combined, these are concentrated in

the larger schools. One implication of these findings is that a degree in educational

leadership, compared to other types of leadership training, is an advantage in securing the

highest administrative positions in postsecondary schools.

Table 4-3

Distribution of Types of Leaders: Educational Leadership (**bold**), MBA (*italics*) and

Public Administration (in brackets) Across Level (type of degree) and Size (number of

students) of Institution: Percentages

Size of Student body	Level		
	Two to less than four-years	Four-or-more years	Total
Less than 1,000	**4.0%** *25.0%* [0.0%]	**7.6%** *11.1%* [33.3%]	**6.1%** *15.3%* [33.3%]
1,000 to less than 5,000	**42.2** *50.0* [0.0]	**61.5** *44.4* [66.7]	**51.1** *46.1* [66.7]
5,000 or more	**51.3** *25.0* [0.0]	**30.7** *44.4* [0.0]	**42.8** *38.4* [0.0]
Total (number of cases)	**(45)** *(4)* ([0])	**(39)** *(9)* ([3])	**(84)** *(13)* ([3])
Grand Total	49	50	100

The group of presidents with no formal leadership training had earned advanced

degrees in more than 25 disciplines. These fell into six main groups: social and

behavioral sciences, humanities, professional degrees, physical sciences, and biological

sciences. The vast majority of college and university presidents without formal leadership training have advanced degrees either in social and behavioral sciences (30 percent) or humanities (27 percent). At a distant third, fourth, and fifth, respectively, are those with professional degrees (16 percent) and trained in the physical sciences (12 percent) or one of the biological sciences (9 percent). Six percent of those without formal leadership training have no record of an advanced degree as indicated either on the presidents' online biography or dissertation abstracts, so their undergraduate degrees were recorded.

Comparison of Leaders With and Without Formal Leadership Training

The analysis immediately following addresses the core concern of this research. Namely, does formal leadership training make a difference? More specifically, do colleges and universities headed by a chief administrator with formal leadership training have better outcomes than those without such training?

Among IPEDS data, 23 indicators of success were selected for this research. These, in turn, can be placed into three categories broadly representing 1) admission selectivity and characteristics of students, 2) student support and success, and 3) school resources.

The category of admission selectivity and characteristics of students includes indicators that represent students' ability to attend that school such as admission requirements, cost, and the probability of graduating. One of these indicators is the college affordability index (CAI). This indicates how affordable the college is compared to itself in previous years, taking into account the consumer price index. The larger the number, the less affordable the school has become. The other measures are total tuition, in-state tuition, out-of-state tuition, average SAT score (at the 75th percentile of those

admitted) for verbal, math and writing, mean ACT composite score, admissions yield

(which is the number applied divided by the number admitted) and the total success rate

(which is the number admitted divided by the degrees awarded). Total success gives the

incoming student the probability of graduating.

Table 4-4a and several that follow facilitate ready comparisons between schools

on the dimensions where the leaders have and do not have formal leadership training. The

indicators of success (in Table 4-4a, selectivity and characteristics of students) are shown

on the stub of the table. The first of the columns in the head shows the average of each

indicator for those with formal leadership training. The second column shows averages of

those schools where the president has no formal leadership education.   The third column

is the difference between these two columns. The differences in this column are not

arithmetic; rather, a positive sign indicates that such presidents preside over schools that

are more successful than those headed by presidents without formal leadership education,

and a negative sign indicates the opposite. For example, leaders with a formal leadership

education lead schools with a lower tuition, on average, than schools with leaders without

formal leadership education. The difference between the two groups is a + $2,861. This

would be positive, because lower tuition is defined as a more successful school in chapter

three. The final column shows the one-tail significance level of the t-test employed. The

designation n.s. means not significant. Any one-tailed significance at or below a 0.05 is

reported and bolded.

It can be seen from table 4-4a, below, that institutions headed by leaders with

formal leadership education have significantly lower tuition and out-of-state tuition costs

than those where the president has no formal leadership education. School where leaders

have no formal leadership education admit students with significantly higher SAT verbal and math scores (at the 75th percentile) and ACT composite scores. There were no significant differences between the two groups of leaders on college affordability index, out-of-state tuition, SAT writing, admissions yield and total success rate.

Table 4-4a

Effect of Formal Leadership Education vs. No Formal Education Comparing Admission

Selectivity and Characteristics of Students

Indicators of success	Leaders with and without formal training			
	With	Without	Difference	Significance
Mean College affordability index (CAI)	1.60	1.55	-.05	n.s.
Total Tuition (Annual $)	$7238	$10089	+$2851	**0.01**
In state total costs (on campus $)	$20574	$22872	+$2298	n.s.
Out of state total costs (on Campus $)	$22687	$26935	+$4248	**0.05**
Mean SAT Verbal (75th percentile) (average score)	564	600	-36	**0.07**
Mean SAT math (75th percentile) (average score)	570	612	-42	**0.01**
Mean SAT writing (75th percentile) (average score)	450	524	-74	n.s.
Mean Composite ACT (75th percentile) (average score)	23.6	25.6	-2	**0.01**
Admissions Yield (enrolled/admitted %)	66.9%	68.8%	-1.9%	n.s.
Success rate (%) of total enrolled	18%	21%	-3%	n.s.

Apart from the differences in table 4-4a that are statistically significant, another measure of interest is the odds ratio. Namely, it can be seen that although not significant, the majority of the indicators in this category favor those schools that have presidents without formal leadership training. The odds ratio expresses the odds of being successful between the two groups (Blalock, 1977). In this case, leaders with a formal leadership education are successful in only three of the ten indicators presented in this table. Thus the odds ratio for leaders with a formal leadership education being successful is a modest 0.18 ((p/(1-q)/q(1-p)). The reciprocal of this number is the probability of leaders without formal leadership training being successful in this category. In other words, the colleges headed by leaders without a formal leadership education are five times more likely to be more successful in this category as those with formal leadership training.

The category of student support and success includes indicators that refer to the ability of students to complete their schooling. These indicators include: the percent of students receiving financial aid, such as federal grant aid, state and local aid and student loan aid, the average amount of financial aid received per student and the two and four-year graduation rates of schools.

Table 4-4b shows the averages of the indicators of success in the category of student support and success. Leaders with formal leadership education are in charge of schools with significantly higher two-year graduation rates. In contrast, leaders without formal leadership education preside over schools that have significantly higher average state and local aid as well as higher average student loan amounts per student. There are no significant differences between the two groups on the remaining dimensions of support and success.

Table 4-4b

Effect of Formal Leadership Education vs. No Formal Education Comparing Student

Support and Success

Indicators of success	Leaders with and without formal training			
	With	Without	Difference	Significance
Average federal grant ($/student)	$3070	$3101	-$31	n.s.
Average state and local aid ($/student)	$1966	$2438	-$472	**0.01**
Average student loan ($/student)	$3425	$4112	-$687	**0.01**
Percent students receiving federal aid	75.0%	75.8%	-0.8%	n.s.
Percent federal grant aid	38.5%	34.9%	+3.7%	n.s.
Percent state and local aid	38.4%	33.6%	+4.8%	n.s.
Percent student loan Aid	43.1%	36.9%	-6.5%	n.s.
Two year graduation rate	28.5%	22.5%	+6.0%	**0.03**
Four-year Graduation rate	51.5%	55.6%	-4.1%	n.s.

Similar to the results in Table 4-4a, the odds ratio favors the leaders with no formal leadership training. For this category of indicators, schools that employ leaders with no formal leadership education are four times more likely to be successful in this category than those schools with leaders who have a formal leadership education.

The last group of indicators of success, the school resources categories, includes nine-and twelve-month faculty salaries and benefits, as well as private and public funding. These dimensions are indicators of the financial success of the school. Inasmuch as these are dollar amounts, the larger the number the more successful the school is deemed.

Table 4-4c, below, shows the average indicators comparing school resources between leaders with and without formal leadership education. Schools led by presidents with formal leadership education have significantly higher nine-month benefits. Schools led by leaders without formal leadership education have significantly higher twelve-month benefits and nine-month salaries. There are no significant differences between schools led by presidents with or without formal leadership education in terms of 12-month salaries, private, and public revenues.

Table 4-4c

Effect of Formal Leadership Education vs. No Formal Education Comparing School

Resources

Indicators of success (in 100,000 dollars)	Leaders with and without formal training			
	With	Without	Difference	Significance
Revenue public ($)	$365.5	$222.3	+$143.0	n.s.
Revenue Private ($)	$46.5	$124.0	-$77.5	n.s.
Faculty Benefits (($) 9 Month)	$51.1	$22.2	+$28.9	**0.01**
Faculty Benefits (($) 12 Month)	$2.8	$8.1	-6.3	**0.01**
Faculty Salary (($) 9 Month)	$0.54	$0.59	-$0.05	**0.01**
Faculty Salary (($) 12 Month)	$0.62	$0.67	-$0.05	n.s.

As in the previous tables, the odds ratio favors the colleges led by leaders without a formal leadership education. These schools are thirty-six times more likely to be successful than schools lead by leaders with a formal leadership education.

Comparison of *Leaders: School Size and Carnegie Classification*

This section discusses differences between leaders with and without formal leadership education among the nine different Carnegie types. Note that the schools of less than two years are left out as there is only one school in the samples, slightly

reducing the total sample size to 99 presidents with no formal leadership degrees and 100 presidents with formal leadership degrees. The following tables (4-6a-4-7c) include the averages of each indicator, difference between the two groups of presidents and the significance level of the t-test employed. A positive sign for the difference between the two groups favors the leaders with formal leadership education while a negative sign favors presidents with no formal leadership training, and if significant, the significance level associated with the one-tailed t-test is shown. Tables 4-6a through 4-7c show all indicator results of four-or-more year schools of small (less than 1,000) medium (between 1,000 and 5,000) and large (greater than 5,000) schools.

Each of the tables contains a substantial amount of information. However, they are arranged in a way that facilitates ready comparisons. These tables have paired columns: schools with and without presidents who have formal leadership education for each of the three school sizes. There are a total of six columns for each table, and for each of the indicators there are two rows. The average values of indicators are presented in the first row. And the second row shows the difference between schools that have leaders with and without leadership education, and the significance level.

The first of these, Table 4-5a, below shows information for admission selectivity and characteristics of students, and compares schools with leaders who have formal leadership education to those with none.

Schools that employ leaders with a formal leadership education have significantly lower tuition in the medium four-plus year school sizes than those without formal leadership education. Small and large schools that employ leaders without formal leadership education admit students with significantly higher SAT verbal (75th

percentile), and SAT (75th percentile) math scores of students are significantly higher for schools with presidents who have no formal leadership training in large four-or-more year schools. Additionally, schools from the large four-or-more year schools that employ leaders admit students with significantly higher ACT scores. There were no significant differences between the two groups of schools when comparing college affordability index, out-of-state tuition, SAT writing, admissions yield or total success rate.

Table 4-5a

Admission Selectivity and Characteristics of Students by Small, Medium or Large Four or More Years Schools.

Indicators of success	Leadership type & school size					
	Formal leadership education <1000 4+ years	**No** Formal leadership education <1000 4+ years	**Formal** leadership education 1001-4999 4+ years	**No** formal leadership education 1001-4999 4 + years	**Formal** leadership education >5000 4+ years	**No** formal leadership education >5000 4+ years
	difference	(p)	difference	(p)	difference	(p)
CAI	2.14 (-1.26)	0.876 (n.s.)	2.13 (-0.47)	1.66 (n.s.)	2.21 (-0.44)	1.77 (n.s.)
Total tuition ($)	$13,589 (-$819)	$12770 (n.s.)	$14906 (+$3688)	$18594 **(0.04)**	$7640 (+146)	$7786 (n.s.)
In state costs	$25054 (+$2327)	$27381 (n.s.)	$30703 (-$3785)	$26918 (n.s.)	$18855 (+$476)	$19331 (n.s.)
Out of state	$27381 (-$2327)	$25054 (n.s.)	$27869 (+$3320)	$31189 (n.s.)	$23806 (+3185)	$31189 (n.s.)
SAT verbal	510 (-80)	590 (n.s.)	573 (-18)	591 (n.s.)	558 (-48)	606 (0.007)
SAT math	533 (-91)	624 **(0.02)**	572 (-21)	593 (n.s.)	526 (-97)	623 **(0.02)**
SAT writing	485 (-125)	610 (n.s.)	440 (-46)	486 (n.s.)	N/A N/A	538 (n.s.)
ACT composite	21.7 (-4.8)	26.5 (n.s.)	24.0 (-20)	25.4 (n.s.)	23.3 (-29)	25.6 **(0.02)**
Admission yield	59.8% (-7.3%)	67.1% (n.s.)	68.5% (+0.1%)	68.4% (n.s.)	66.7 (-2.7%)	69.4% (n.s.))
Success rate (%)	18.6% (+0.5%)	18.1% (n.s.)	22.0% (+0.4%)	21.6% (n.s.)	20.6% (-2.5%)	23.1% (n.s.)

As with the results in Table 4-4a, in Table 4-5a the odds ratio for small medium and large schools four-plus-years favor the presidents without formal leadership education. Small schools are sixteen-times, medium schools two-times, and large schools five times more likely to be successful in indicators from this category than schools that employ leaders with a formal leadership education. However, for selected indicators leaders with a formal leadership education are four times more likely to be successful in total tuition, in-state and out-of-state costs, and total college success. Schools with leaders without formal leadership education are four times more successful in admissions yield. Finally, schools with leaders without formal leadership education are 100 percent more likely to have students with higher SAT and ACT scores than those students from school that have leaders with formal leadership education.

Similar to that just considered, table 4-5b shows the averages of the indicators of success in the category of student support and success for schools that offer four-or-more years and are small medium and large. A significantly higher percentage of students from schools that employ leaders with a formal leadership education are awarded federal financial aid. There are no significant differences between schools that employ leaders with or without formal leadership education in other financial aid. Additionally, there are no significant differences between the groups when comparing the four-year graduation rate. The four-plus year schools typically do not report two year graduation rates; therefore, those rates are not shown.

Table 4-5b

 Student Support and Success by Small, Medium and Large Four of More Years Schools.

Indicators of success	Leadership type & school size					
	Formal leadership education <1000 4+ years	No formal leadership education <1000 4+ years	Formal leadership education 1001-4999 4+ years	No formal leadership education 1001-4999 4 + years	Formal leadership education >5000 4+ years	No formal leadership education >5000 4+ years
	difference	(p)	difference	(p)	difference	(p)
Average Federal Grant	$3287 (+$438)	$2849 (n.s.)	$3347 (+$110)	$3237 (n.s.)	3061 (-$204)	$3265 (n.s.)
Average state and Local Aid	$3073 (-$101)	$3174 (n.s.)	$2789 (-$795)	$3284 (n.s.)	$2506 (+$172)	$2334 (n.s.)
Average student loan	$3646 (-$570)	$4216 (n.s.)	$4341 (-$730)	$5071 (n.s.)	$3616 (-$532)	$4148 (n.s.)
Percent Students receiving federal aid	96.6% (+9%)	87.6% (n.s.)	85.9% (-2.9%)	88.8% (n.s.)	82.7% (+8.2%)	73.9% **(0.02)**
Percent receiving federal grant aid	47.0% (-15%)	62.0% (n.s.)	34.4% (+0.6%)	33.8%% (n.s.)	31.6% (+8.5%)	23.1% **(0.03)**
Percent receiving state and local Aid	32.6% (+1.2%)	31.4% (n.s.)	46.9% (+9.8%)	37.1% **(0.04)**	45.4% (+32.2%)	13.2% (n.s.)
Percent receiving student loan aid	47.8% (-22.2%)	69.7% (n.s.)	60.0% (-2.7%)	62.7% (n.s.)	49.9% (-8.1%)	41.7% (n.s.)
Four-year graduation rate	43.5% (+2.5%)	41.0% (n.s.)	57.4% (-3.1%)	60.8% (n.s.)	46.8% (-8.8%)	55.6% (n.s.)

The odds ratio for medium schools four-plus-years, favor the leaders without formal leadership education. These schools are three times more likely to be successful in indicators shown in these categories than schools that employ leaders without a formal leadership education. However, among small and large schools with either leadership types are equally probable to be successful. Additionally, schools that employ leaders with a formal leadership education are four times more likely to award students more federal grant aid and have a higher percentage of students receiving federal aid and federal grant aid. These schools are also 100 percent more likely to higher percentage of students receiving state and local aid. In contrast, schools with leaders without formal leadership education are four times more likely to have students with more state and local aid and to have a higher graduation rate. Finally, schools with leaders without formal leadership education are 100 percent more likely to have students with student loans as compared to those students from schools that have leaders with formal leadership education.

Table 4-5c, below, compares school resources between schools that have leaders with and without formal leadership education in small, medium and large four-or-more year schools. Schools headed by leaders without formal leadership education have significantly higher nine-month benefits. There are no significant differences between schools led by presidents with and without formal leadership education in terms of twelve-month benefits, nine and twelve-month salaries, private, and public revenues.

Table 4-5c

School Resources by Small, Medium and Large Four of More Years Schools.

Indicators of success (in 100,000 dollars)				leadership type & school size		
Formal leadership education <1000 4+ years	No formal leadership education <1000 4+ years	Formal leadership education 1001-4999 4+ years	No Formal leadership education 1001-4999 4 + years	Formal leadership education >5000 4+ years	No formal leadership education >5000 4+ years
difference	(p)	difference	(p)	difference	(p)
Revenue 113 private ($) (-$21)	$134 (n.s.)	$434 (-$89)	$523 (n.s.)	8670 (+$7570)	1100 (n.s.)
faculty $9.1 benefits (+$7) (9 month ($))	$05.4 (n.s.)	$12 (-$4)	$16 (n.s.)	$64 (+$61)	$12.5 **(0.01)**
Faculty $2.0 benefits (-$1.1) (12 month ($))	$3.1 (n.s.)	$1.4 (+$1.0)	$0.36 (n.s.)	$9.9 (-$7.0)	$2.0 (n.s.)
Faculty $0.4 $ salary ($0.0) (9 Month($))	$0.4 (n.s.)	$.63 (+$0.07)	$0.56 (n.s.)	$0.61 (-$0.06)	$0.067 (n.s.)
Faculty $0.53 salary (-$0.01) (12 Month ($))	$0.52 (n.s.)	0.057 (+0.004)	$0.53 (n.s.)	$0.75 (-0.02)	$0.77 (n.s.)

The odds ratio for small and large schools of four-plus years, favors the leaders without formal leadership education. Small schools are nine-times more likely to be successful in indicators from this category and large schools are two times more likely to be successful in this category than schools that employ leaders with a formal leadership education. However, medium-size schools with leaders who have formal leadership

education are two times as likely to be successful than schools with leaders with no such education. Schools that employ leaders with formal leadership education are four times more likely to have higher nine-month benefits for faculty and staff. Although the evidence is mixed, it generally favors schools that have leaders without formal leadership training which are four times more likely to have higher private funding, twelve-month benefits, and higher nine-and–twelve-month salaries.

Tables 4-6a through 4-6c shift the emphasis from those with 4-plus year schools to schools that have two-to-four-year programs. These schools do not offer bachelorette or graduate degrees. It may be recalled that this school type has a higher concentration of schools with presidents who have formal leadership training than those without.

As was just done above for the larger schools, Tables 4-6a, 4-6b and 4-6c, below, show the averages of each indicator, the difference between the two groups of leaders (positive indicates a mean difference that favors schools with leaders who have a formal leadership education) and if the mean difference is significant, the significance level is shown. These tables include two-to-four year schools of small (less than 1000) medium (between 1000 and 5000) and large (greater than 5000) schools. Note that two-to-four-year schools have no aptitude test requirements for entrance and these school do no report admissions yield: therefore the SAT and ACT scores and admission yields are not shown here.

Table 4-6a, below, shows the first category, admission selectivity and characteristics of students, which compares leaders with a formal leadership education to those with no such education among these smaller schools. Schools with presidents with formal leadership education have significantly lower out-of-state cost in the small two-to-

four year school sizes than those schools with presidents without a formal leadership education. There are no significant differences between leaders with and without formal leadership education in the remaining indicators.

Table 4-6a

Admission Selectivity and Characteristics of Students by Small, Medium and Large Two- to Four-year Schools.

Indicators of success	leadership type & school size					
	Formal leadership education <1000 2-4 years	No formal leadership education <1000 2-4 years	Formal leadership education 1001-4999 2-4 years	No Formal leadership education 1001-4999 2-4 years	Formal leadership education >5000 2-4 years	No formal leadership education > 5000 2-4 years
	(difference)	(p)	(difference)	(p)	(difference)	(p)
CAI	0.637 (-0.352)	0.285 (n.s.)	1.69 (-0.03)	1.66 (n.s.)	0.518 (+0.972)	1.49 (n.s.)
Total tuition	$2740 (+$8773)	$11513 (n.s.)	$2651 (-$502)	$2149 (n.s.)	$1515 (+$315)	$1830 (n.s.)
In state costs	$11770 (+$4630)	$16400 (n.s.)	$10420 (-$321)	$10099 (n.s.)	$8886 (N/A)	N/A (n.s.)
Out of state	$13372 (+$4180)	$17480 **(0.03)**	$12817 (+$414)	$13231 (n.s.)	$11783 (N/A)	N/A (n.s.)
Success rate	24.5% (-10.8%)	35.3% (n.s.)	19.5% (+3.7%)	15.8% (n.s.)	10.9% (-0.03%)	11.2% (n.s.)

The larger four-plus schools just considered have presidents without formal leadership education in a higher concentration, and had higher odds ratios than those schools with presidents with formal leadership education. In contrast, the concentration of presidents with formal leadership degrees are higher and the odds ratio for these two-

to-four-years schools. Small schools with presidents with formal leadership education are two times more likely to be successful in indicators from this category, and large schools are four times more likely to be successful in this category than schools that employ leaders without a formal leadership education. Medium size schools that employ leaders with no formal leadership education are four times as likely to be successful than schools with leaders with formal leadership training in this category. Schools that employ leaders with a formal leadership education are four times more likely to have lower total tuition and 100 percent more likely to have lower out-of-state costs. These same schools are four times more likely to have higher total success rate. Finally, both types of schools, with and without leaders with a formal leadership education, are equally likely to have low in-state costs.

Table 4-6b shows the averages of the indicators of success in the category of student support and success for schools that offer two-to-four years and are small medium or large. Leaders with a formal leadership education are in charge of the small schools, award significantly higher federal grant aid to students. There are no significant differences between schools that employ either president type in other financial aid— either percentage of students receiving the aid or average amount per student.

Table 4-6b

Student Support and Success for Small, Medium and Large Two-to-Four-Year Schools.

Indicators of success	Leadership type & school size					
	Formal leadership education <1000 2-4 years (difference)	No formal leadership education <1000 2-4 years (p)	Formal leadership education 1001-4999 2-4 years (difference)	No Formal leadership education 1001-4999 2-4 years (p)	Formal leadership education >50002-4 years (difference)	No formal leadership education >5000 2-4 years (p)
Average Federal Grant	$3001 (+$1036)	$1965 **(0.01)**	$2702 (-$272)	$2974 (n.s.)	$3030 (+$80)	$2950 (n.s.)
Average state and Local Aid	$1701 (-$1239)	$2940 (n.s.)	$1113 (-$261)	$1374 (n.s.)	$1190 (+$149)	$1041 (n.s.)
Average student loan	$3360 (+$958)	$2402 (n.s.)	$2790 (+$203)	$2587 (n.s.)	$2624 (-$595)	$3219 (n.s.)
Percent Students receiving federal aid	87.7% (+7.7%)	80% (n.s.)	69.5% (+1.7%)	67.8% (n.s.)	56.2% (+5.6%)	50.5% (n.s.)
Percent receiving federal grant aid	53.0% (-5.0%)	58.0% (n.s.)	45.9% (+0.3%)	45.6% (n.s.)	36.7% (+5.9%)	30.8% (n.s.)
Percent receiving state and local aid	24.3% (-8.8%)	33.5% (n.s.)	46.9% (+23.4%)	23.5% (n.s.)	10.5% (-1.0%)	11.5% (n.s.)
Percent receiving student loan aid	69.7% (+16.2%)	53.5% (n.s.)	24.6% (+6.7%)	17.3% (n.s.)	10.0% (+2.5%)	7.5% (n.s.)
Two Year Graduation rate	34.4% (+14.7%)	19.7% (n.s.)	28.7% (+4.7%)	24.0% (n.s.)	26.7% (+5.7%)	21.0% (n.s.)

The odds ratio for small, medium and large schools two-to-four-years, favor the leaders with formal leadership education. Small schools are two times more likely to be successful in indicators from this category: for medium and large schools there is a nine-fold advantage. Schools that employ leaders with a formal leadership education are four times more likely to receive more federal grant aid and student loan aid awarded to their students. Additionally, these schools are four times more likely to have a higher percentage of students who receive federal grant aid. These schools are also 100 percent more likely to have a higher percentage of students awarded student loan aid and federal aid. Finally, schools that employ leaders with a formal leadership education are 100 percent more likely to have a higher graduation rate than schools that are led by those with no formal leadership education. Schools that have leaders without formal leadership training are four times more likely to have higher state and local aid, and a higher percentage of students receiving state and local aid.

Table 4-6c below, shows those data comparing school resources between leaders with and without formal leadership education in small, medium and large two-to-four year schools. Schools with leaders who have no formal leadership education have significantly higher nine-month faculty salaries as compared to schools with leaders who have formal leadership education. There are no significant differences between schools led by presidents with or without formal leadership education on any other of the indicators of this category.

Table 4-6c

School Resources by Small, Medium and Large Two-to-Four-Year Schools.

Indicators of success in100,000 dollars				leadership type & school size	
Formal leadership education <1000 2-4 years	No formal leadership education <1000 2-4 years	Formal leadership education 1001-4999 2-4 years	No Formal leadership education 1001-4999 2-4 years	Formal leadership education >50002-4 years	No formal leadership education >5000 2-4 years
(difference)	(p)	(difference)	(p)	(difference)	(p)
Revenue public ($) N/A (N/A)	$222 (n.s.)	$147 (N/A.)	N/A (n.s.)	$496 ($N/A)	N/A (n.s.)
Revenue private ($) N/A (N/A)	N/A (n.s.)	$59.7 (N/A)	N/A (n.s.)	$48.8 (N/A)	N/A (n.s.)
faculty benefits (9 month ($)) $0.36 ($+0.21)	$0.15 (n.s.)	$0.10 (-$0.01)	$0.11 (n.s.)	$0.27 (-$0.01)	$0.28 (n.s.)
Faculty benefits (12 month ($)) $0.04 (-$0.07)	$0.11 (n.s.)	$0.07 ($0)	$0.07 (n.s.)	$0.24 (-$0.07)	$0.31 (n.s.)
Faculty salary (9 Month($)) $0.40 (-$0.01)	$0.50 **(0.04)**	$0.40 (-$0.01)	$0.50 (n.s.)	$0.60 ($0)	$0.60 (n.s.)
Faculty salary (12 Month ($)) $0.04 ($0.0)	$0.04 (n.s.)	$0.05 ($0.0)	$0.05 (n.s.)	$0.07 ($0.0)	$0.07 (n.s.)

The odds ratio for small, medium and large two-to-four-year schools favor the

leaders with no formal leadership education. Small schools are four times more likely to

be successful in indicators from this category, and medium and large schools are 100

percent more likely to be successful in this category than schools that employ leaders

with formal leadership education. Schools that employ leaders with no formal leadership education are four times more likely to have higher twelve-month benefits and 100 percent more likely to have higher twelve-month salaries. Schools with either leadership type are equally probable as having higher private funding, nine-month benefits and twelve-month salaries.

Throughout the analysis to this point, the findings have been mixed. Formal leadership training of presidents does not seem to offer any obvious advantage or disadvantage. However, in the two-to-four-year schools a pattern can be seen. By using the odds ratio, all sizes of two-to-four-year schools are more successful with leaders who have formal leadership training compared to those without. Additionally, these are the very schools where leaders with formal leadership training are most numerous. The sample of four-or-more year schools that have leaders with no formal leadership education are on average about three times more likely to have more successful schools than those with formal leadership education. With two-to-four year schools, leaders with a formal leadership education are about two times more likely to have more successful schools as compared to leaders with no formal leadership education.

In summary, this section examined the importance of leaders with and without formal leadership education. There was no particular pattern in terms of statistical significance. However, when examining the odds ratio, a pattern does appear and it is that leaders without formal leadership education had more successful schools in the four-plus year schools while leaders with formal leadership training were more successful in two-to-four year schools. These data suggests that a niche exists in which leaders with

formal leadership training are both more concentrated and more successful: namely, two-to-four-year colleges.

Comparison Indicators of Success between Leaders' Credentials

This section examines the data comparing indicators within each group of leaders, those with and without formal leadership education. The distributions of each group are examined and comparisons are made between the two most frequent degree types earned within each group. For leaders without a formal leadership education, the two most common degree types are humanities and behavioral sciences. For leaders with a formal leadership education the two degree types are business administration and educational leadership. This comparison is done in order to determine if any degree type is more frequently associated with success.

Comparison of Indicators of Success by Academic Credentials among Those Without Formal Leadership Education Degree

Leaders with no formal leadership education are distributed in six main categories, as shown in Figure 4-1 Thirty percent of these leaders have terminal degrees in social and behavioral sciences, 27 percent have degrees in humanities, 16 percent have professional degrees, 12 percent have degrees in physical sciences, 8 percent have degrees in biological sciences and 6 percent have no degrees indicated. The two largest groups, humanities and behavioral sciences, have more than twice as many presidents as the other groups and are evenly distributed; only those two groups will be compared along indicators of success.

Figure 4-1

Distribution of Leaders without Formal Leadership Education by Credentials

No Formal Leadership education: Degree Type
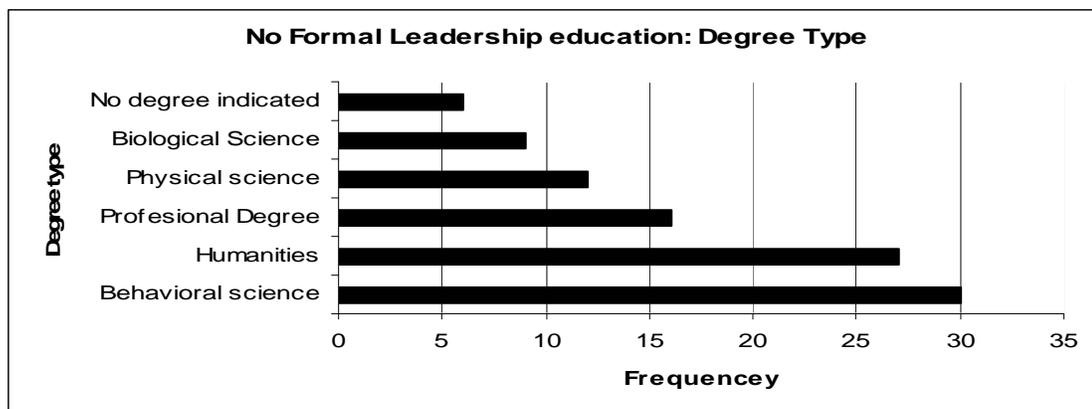
The following analysis offers comparisons between schools headed by presidents with terminal degrees in the two most numerous categories, behavioral sciences and the humanities. That is, those presidents educated without formal leadership training.

As was done in the previous tables, the indicators of success are placed into three categories: student admission selectivity and characteristics of students, student support and success, and school resources comparisons between leaders with humanities degrees and those with behavioral science degrees. These tables include the averages of each indicator for the degree type. The difference column is the mean of the indicators for leaders with degrees in humanities minus the leaders with degrees in behavioral sciences. A positive sign favors humanities and negative sign will favor behavioral science. If a one-tailed significance level is reached it is shown and bolded. As before, no significance is designated by n.s.

Table 4-7a, below, shows the first category, admission selectivity and characteristics of students. Schools that employ leaders with a terminal degree in behavioral sciences have significantly lower tuition than those schools that employ

leaders with a degree in humanities. There were no significant differences between the two groups of leaders when comparing college affordability index, in-state and out-of-state tuition, the three SAT components (75th percentile), ACT Composite score, admissions yield and total success rate.

Table 4-7a

Comparison of Indicators of Success of Non Formal Leaders by Credentials: Admission Selectivity and Characteristics of Students

Indicators	No Formal Leadership: degree type			
of success	Degree in humanities:	Degree in behavioral science	Difference	Significance
College Affordability index (CAI)	1.42	1.62	+0.2	n.s.
Tuition	$12473	$7119	+$5354	**0.02**
In state total costs (on campus $)	$25834	$20246	-$5588	n.s.
Out of state total costs	$28822	$25544	-$3278	n.s.
SAT verbal	603	594	+9	n.s.
SAT math	615	602	+13	n.s.
SAT writing	530	567	-37	n.s.
ACT composite	25.3	25.3	0	n.s.
Admissions yield	64.4%	70.8%	-6.4%	n.s.
Success rate (%)	19.3%	17.4%	+1.9%	n.s.

There was only one significant difference in the table just considered, however, the odds ratio slightly favors the colleges that employ leaders with degrees in humanities, which are about one-and-a-half –times more likely to be successful than schools that employ presidents with degrees in behavioral sciences.

Next, Table 4-7b shows the averages of the indicators of success in the category of student support and success. Leaders with a terminal degree in humanities are in charge of schools with significantly higher average amount of state and local aid per student. There are no significant differences between the two groups in any other of the grant aid or percentage of students receiving that aid. Additionally, there are no significant differences between the groups in either the two-or-four-year graduation rates.

Table 4-7b

Comparison of Indicators of Success of Non Formal Leaders by Credentials: Student

Support and Success

Indicators	No Formal Leadership: degree type			
of success	Degree in humanities:	Degree in behavioral science	Difference	Significance
Average federal grant ($/Student)	$3090	$3075	+15	n.s.
Average state and local Aid$/Student	$2718	$1950	+$790	**0.04**
Average student loan	$4441	$3794	+$647	n.s.
Percent students federal aid	78.9%	75.2%	+3.7%	n.s.
Percent federal grant aid	35.6%	32.7%	+2.9%	n.s.
Percent state and local Aid	63.5%	24.0%	+39.5%	n.s.
Percent student loan Aid	47.5%	36.6%	+11.1%	n.s.
Two year graduation rate	18.5%	23.2%	-4.7%	n.s.
Four-year graduation rate	58.4%	52.8%	+5.6%	n.s.

The odds ratio for this category of indicators strongly favors schools that employ

leaders with degrees in humanities. These schools are sixteen-times more likely to be

successful than schools that employ presidents with degrees in behavioral sciences.

Table 4-7c below, shows the data comparing school resources between leaders

with a degree in humanities to those schools that employ presidents with degrees in

behavioral sciences. There were no significant differences in any of the indicators

between the two groups in this category.

Table 4-7c

Comparison of Indicators of Success of Non Formal Leaders by Credentials: School

Resources

Indicators of success (*in100,000 dollars)		No Formal Leadership: degree type		
	Degree in humanities:	Degree in behavioral science	Difference	Significance
Revenue public ($)	$222.3	N/A	0.0	n.s.
Revenue private ($)	$622.2	$1010.0	-$390.	n.s.
faculty benefits (9 month ($))	$34.8	$55.8	-$21.0	n.s.
Faculty benefits (12 month ($))	$4.64	$9.80	-$5.16	n.s.
Faculty salary (9 Month($))	$0.60	$0.58	+$0.02	n.s.
Faculty salary (12 Month ($))	$0.65	$0.68	-$0.03	n.s.

The odds ratio for this category of indicators strongly favors schools that employ

leaders with degrees in behavioral sciences. These schools are sixteen-times more likely

to be successful than schools that employ presidents with degrees in humanities.

To summarize the last three tables above, there were very few significant differences between the leaders with a degree in humanities and those with a degree in behavioral sciences. Schools that have presidents with degrees in humanities had significantly higher tuition. With the exception of school resources, schools with leaders who have a degree in humanities have higher odds of being more successful in the categories of college selectivity and student input and student support and success. Finally, over all the categories of indicators, schools with leaders in humanities are about two-and-one-half-times more successful than schools with leaders who have a degree in behavioral science.

Comparison of Indicators of Success by Credentials among Those With Formal Leadership Education Degree

Turning consideration to leaders with formal leadership education as shown in figure 4-2, they are distributed in three main categories according to the type of leadership education. Eighty-three percent of these leaders have terminal degrees in educational leadership, thirteen percent have degrees in business administration, and three percent in public administration. Because there are only three leaders with degrees in public administration, this group is excluded and only educational leadership and business administration are compared to each other in subsequent analyses.

Figure 4-2

Distribution of Leaders with Formal Leadership Education by Type of Degree
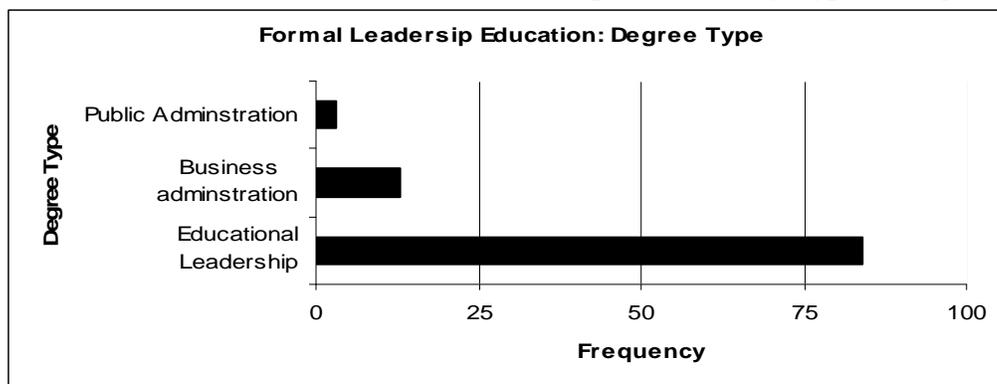
Table 4-8a, below, shows the first category, admission selectivity and characteristics of students. Schools that have leaders with a degree in educational leadership have significantly lower tuition than those schools with presidents with a degree in business administration. Schools with leaders who have a degree in business administration have a significantly higher SAT Math score than those with a degree in educational leadership. There were no significant differences between the two groups of leaders when comparing college affordability index, in state and out-of-state tuition, SAT verbal, SAT Writing, ACT Composite score, admissions yield and total success rate.

Table 4-8a

Comparison of Indicators of Success of Formal Leaders by Types Credentials Admission

Selectivity and Characteristics of Students

Indicators	Formal Leadership: Degree type			Totals	
of success	Degree in educational leadership	Degree in business administration	Difference	Significance	
College affordability index (CAI)	1.52	2.20	+0.68	n.s.	
Total Tuition ($)	$6695	$8820	+$2125	**<0.01**	
In state total costs (on campus $)	$19911	$21774	+$1563	n.s.	
Out of state total costs (on Campus $)	$22146	$23905	+$1759	n.s.	
Mean SAT Verbal	560	571	-11	n.s.	
Mean SAT math	569	576	-7	**0.03**	
Mean SAT writing	426	460	-34	n.s.	
Mean Composite ACT	23.4	24	-0.7	n.s.	
Admissions Yield (enrolled/admitted %)	66.1	72.8	-6.7	n.s.	
Success rate (%) of total enrolled	18.5	18.4	+0.1	n.s.	

Although there are only two significant differences in the table just considered,

the odds ratio favors neither schools that employ leaders with degrees business

administration. In other words both schools, those that employ either presidents with

business administration or educational leadership, are equally probable to be successful.

Next, Table 4-8b shows the averages of the indicators in the category of student support and success. Presidents with educational leadership education have a significantly higher percentage of students receiving state and local aid as compared to those with business administration. There are no other significant differences.

Table 4-8b

Comparison of Indicators of Success of Formal Leaders by Credentials Student Support and Success

Indicators of success	Formal Leadership: Degree type			
	Degree in educational leadership	Degree in business administration	Difference	Significance
Average Federal Grant ($/Student)	$3053	$3247	-$194	n.s.
Average State and Local Aid $/Student	$1916	$2255	-$339	n.s.
Average student loan $/Student	$3350	$2794	+$556	n.s.
Percent students receiving Federal Aid	73.5%	80.2%	-6.7%	n.s.
Percent federal grant aid	38.7%	38.5%	+0.2%	n.s.
Percent students receiving state and local Aid	88.5%	30.9%	+57.4%	**0.04**
Percent students receiving student loan Aid	34.7%	43.2%	-8.5%	n.s.
Two Year Graduation Rate	28.4%	30.2%	-1.8%	n.s.
Four-year Graduation rate	50.4%	53.1%	-2.7%	n.s.

The category of student support and success favors schools that employ presidents with degrees in business administration. These schools are four times more likely to be successful in this category of indicators than schools that are led by presidents with a degree in educational leadership.

Table 4-8c, below, shows comparisons of school resources between leaders with a business administration degree to leaders with an educational leadership degree. The former lead schools that pay significantly higher twelve-month faculty benefits compared to those with leaders who have educational leadership degrees. There were no other significant differences.

Table 4-8c

Comparison of Indicators of Success by Types of Academic Training Among Those Without Formal Leadership Education Degree: School Resources

Indicators	Formal Leadership: Degree type			
of success in 100,000 dollars	Degree in educational leadership	Degree in business administration	Difference	Significance
Revenue Private ($)	$445.3	$533.9	-$8.8	n.s.
Revenue public ($)	$36.6	N/A	N/A	n.s.
Faculty Benefits (($) 9 Month)	$22.1	$30.9	-$8.8	**0.008**
Faculty Benefits (($) 12 Month)	$2.8	$3.8	-$1.0	**<0.001**
Faculty Salary (($) 9 Month)	$0.54	$0.55	-$0.01	n.s.
Faculty Salary (($) 12 Month)	$0.63	$0.59	+$0.04	n.s.

Again, this category of indicators favors the presidents with degrees in business administration. These colleges are sixteen-times more likely to be successful in this category than schools with presidents that have degrees in educational leadership. Overall, schools with presidents who have degrees in business administration are three and one half-times more likely to be successful in the categories of success used than schools with presidents with a degree in educational leadership

Because schools with presidents who have a degree in business administration are three-and-one-half-times more likely to be more successful than schools that employ presidents with educational leadership, an attentive reader might ask if the differences between leaders with a formal leadership education, in particular educational leadership, do better than schools with leaders without a formal leadership education, especially given the profound differences found in the two-to-four-year schools. In other words, are the advantages of formal leadership training due largely to those trained in business, with training in educational leadership having little or no effect?

Although not presented in tabular form, the odds ratio favors small and large two-to-four-year schools for schools that employ educational leaders for the category of "selectivity and characteristics of students." Note that this is the same trend seen when presidents with business administration are included in the sample. Considering just those with educational leadership, small schools are sixteen-times more likely to be successful, while large schools are 100 percent more likely to be successful as compared to schools that employ presidents without formal leadership training. Medium schools favor presidents who have no formal leadership training and those schools are sixteen-times

more likely to be successful compared to schools with educational leaders as presidents. Interestingly, schools with educational leaders are four times more likely to have lower tuition and lower in-state costs. There is no advantage to any other indicator to either group in this category. Thus, taking out schools with presidents who have degrees in business administration, the trend of schools with presidents who have formal leadership education being more successful than schools without, for the category of "school selectivity and student characteristics," remains unchanged.

For the category of "student support and success," the odds ratio also favors medium and large two-to-four-year schools that employ educational leaders. Medium schools are one-and-one-half times more likely to be successful, and large schools are forty-nine-times more likely to be successful compared school with leaders who have no formal leadership education. Schools with leaders who have either type of education are equally successful. Note though, that with the exception of small schools, this trend is the same as when presidents with business administration are in the sample. Students from schools with leaders with no formal leadership education are four times more successful in percentage of students receiving federal grant aid and those students are four times more likely to receive higher state and local aid on average. Students from schools with leaders who have an educational leadership degree are four times more likely to have a higher amount of federal grant aid, student loan aid and on average four times as many students receive state and local aid and student loan aid. Finally, these students from schools with presidents who have educational leadership degrees are 100 percent more likely to have higher two year graduation rates and have more students receiving federal aid.

The odds ratio for medium and large two-year schools favor schools with leaders with no formal leadership training for the category of school resources. Medium schools are nine times more likely to be successful, while large schools are about two times more likely to be successful in the category of school resources as compared to schools with leaders who have an educational leadership degree. There is an equal chance of being successful with small schools between the two groups of schools. Schools with leaders without formal leadership training are four times more likely have higher average faculty and staff salaries than schools with leaders who have an educational leadership degree. Schools with leaders who have a degree in educational leadership are four times more likely to have higher nine month benefits and 100 percent more likely to have more private funding as compared to schools with leaders who have no formal leadership training. Additionally, both types of schools are equally likely to have higher twelve month salaries.

The odds ratio favors small and large two-to-four-year schools over all the categories for schools that employ leaders with an educational leadership degree. Small schools are two times more likely to be successful and large schools six times more likely to be successful as compared to schools with leaders with no formal leadership training. The odds ratio for medium schools favors school with leaders with no formal leadership training. These schools are four-time more likely to be successful, compared to schools led by a president with an educational leadership degree.

To summarize the effect of excluding schools with presidents who have business administration degrees and comparing the two groups of schools, those with presidents who have formal leadership education and those with presidents who have no such

education, the only trend that changes is among the medium sized schools. That is, when leaders with business administration are in the sample, medium sized two-to-four-year schools, indicators of success favor schools with leaders with a formal leadership education, and when those presidents with business administration are removed from the sample, indicators of success favor schools with presidents who have no leadership education. All other trends remain the same. Thus, in cases where schools were headed by a president with formal leadership education, the benefits were not attributed to those with training business administration.

To summarize the relationship of the type of leadership training: schools with presidents with no formal leadership education favored presidents with a degree in humanities. Schools with presidents with formal leadership education favored presidents with business administration degrees. When business administration was removed from the population for the two-to-four year schools (except for medium sized schools), the trends remained the same when comparing schools with leaders who have a formal degree in leadership to those schools who have leaders with no formal leadership education (excluding presidents with business degrees).

Quantitative Summary

The overall findings to this point show that the sample is similar to the population. There does seem to be a niche of schools where leaders with formal degrees in leadership are found, namely, two-to-four-year schools. These schools have a majority of leaders with a formal leadership degree; on average about one third more schools have leaders with formal leadership training. This pattern is somewhat reversed in four-plus year

schools. The exception is the medium four-plus year schools where there are an even number of presidents with and without formal leadership training.

Comparing schools with presidents with and without formal leadership education, there are few significant differences. Of note, schools with leaders who have formal leadership education have significantly lower tuition, out-of-state costs, and higher two year graduation rates. Schools that had leaders with no formal leadership training have significantly higher SAT verbal and ACT composite scores and significantly higher amount of state and local aid and student loan aid for students. Finally, schools with leaders who had no formal leadership education have significantly higher nine and twelve month benefits and nine-month salaries for faculty. Without examining the Carnegie subtypes, the odds ratio favors schools with leaders with no formal leadership education.

However, when considering schools by Carnegie type, there are two school types in which the sample is concentrated. These are two-to-four-year schools and four-plus year schools. These can be further broken down by size, small school (less than 1,000), medium schools (between 1,000 and 5000), and large schools (greater than 5,000). As above, there are very few significant differences between schools with presidents who have and don't have formal leadership training, in the two to four and four-plus-years school.   Of note, tuition and financial aid favor the schools with leaders with formal leadership education, where SAT scores and faculty salaries favor schools with leaders without formal leadership education.

When comparing odds ratios, a technique to measure the probability of success, an important pattern appears. For the four-plus years schools, the schools with leaders who have no formal leadership education are more likely to be successful than schools with

leaders who have a formal leadership education. These odds are less in the medium-sized schools where there was an equal number of schools with presidents who have and do not have formal leadership education. In small and large four-plus year schools the number of schools with leaders who have no formal leadership training are much greater (at least two times) than schools with presidents with formal leadership training.

In the case of two-to-four-year schools in all school sizes, the odds ratio tells a much different story. In almost every category and in every school size the odds ratio favor schools with leaders with formal leadership education. It is important to note that the two-to-four-year schools have a majority of leaders with a formal leadership education. In other words, the niche in which presidents with formal leadership work—two-to-four year schools—have higher odds of being successful.

Finally, when comparing presidents' credentials within each group, the schools that have leaders with no formal leadership training, the leaders with degrees in humanities do better than schools with leaders with degrees in behavioral sciences. For schools that have leaders with business administration degrees do better than schools with leaders with educational leadership degrees. However, when leaders with business administration are taken out of the sample and only educational leaders are compared to schools with leaders who have no leadership education, the two-to-four-year trend of the odds ratio favoring school with leaders who have formal leadership degree remains essentially unchanged.

The quantitative analyses just reported show few significant differences. Indeed, for the two-to-four-year schools where leaders who had formal leadership education were in the majority, those schools had higher odds of being more successful than schools with

leaders who had no formal leadership training. And there were few differences in the four-plus year schools where leaders with a formal leadership education were in the minority. These results are in obvious contradiction to the criticism of leadership training found in the professional literature which was considered at the outset and examined in detail in Chapter two. It is also the case that nothing approaching poor performance was noted. Said another way, nothing in this research supports the implications of the excoriation of leadership education programs so often encountered.

A different dimension is considered below. Namely attention is now turned to the results of the interviews with selected leaders and what they have to say about their education and experiences.

Content Analysis: Interview Results

The results of the quantitative analysis show that presidents with formal leadership degrees tend to lead schools that are more successful than those presidents with no formal leadership degree in the schools where the presidents with formal leadership degrees in all sizes of two-to-four-year colleges. These are the very colleges where presidents with formal leadership education are more concentrated. While this is of interest and importance, it tells us nothing about these presidents, and nothing about their attitudes toward education or the indicators of success; for that reason interviews of presidents were conducted.

The content analysis of these interviews allows for a general understanding of the traits of highly successful leaders with and without formal leadership education and of unsuccessful leaders with and without formal leadership education. Because two-to-four year schools contained the highest concentration of presidents with formal leadership

education, and because the odds ratio in the qualitative analysis showed these schools to be the more successful than schools with presidents without formal leadership education, presidents from these schools were selected for interviews.

The next few sections are broken down into several categories. First is a description of the how the interviewees were sampled. Next is a description of the presidents' responses themes and categories in which those responses fall. Then there is a comparison of highly successful and unsuccessful leaders with and without formal leadership education. Finally, data from the content analysis are compared to the findings in the quantitative data.

Selection of Interviewees for Content Analysis

Just as in the quantitative analysis, the content analysis compares presidents with formal leadership education to presidents with no formal leadership education. The analysis also compares highly successful presidents to unsuccessful presidents in each group.

In all, 32 presidents were identified for interviews. Schools with a five percent difference above the mean for the indicators of success were selected and those presidents are defined as highly successful leaders. Schools that had a five percent increase in multiple indicators were selected in order to maximize a successful school in regards to the indicators of success. There were 16 highly successful presidents that were contacted for an interview. Eight presidents had formal leadership education and eight did not. Of these 16 presidents, eight agreed to be interviewed. Five of the eight presidents had formal leadership training, and three did not.

Similarly, presidents that were not successful were selected in the same manner, except the criteria for selection was a five percent mean decrease in indicators of success. Again, 16 presidents were contacted for interviews, and eight ultimately responded. Four of the eight presidents responding had formal leadership training and four did not.

Table 4-9 below, shows the number of presidents interviewed, those that were highly successful and unsuccessful both with and without formal leadership education. The stub of the table shows highly successful and unsuccessful presidents. The head of the table shows the leader type. The number of presidents interviewed, and the average number of indicators of either those that are five percent above the mean for successful schools above the mean, for successful schools, or five percent below the mean for unsuccessful schools, given in parentheses.

Table 4-9

Selection of Highly Successful (HS) College Presidents to Interview by Categories of Indicators of Success

	Formal Leaders	No Formal Training
Highly Successful	5 (9.4)	3 (7.6)
Unsuccessful	4 (9.25)	4 (8.75)

Responses of Interviewees for Content Analysis

Once the presidents agreed to the interview and returned the consent form, they were contacted and scheduled for an interview. There were ten questions in the interview protocol (shown in Appendix B), and all interviewees were asked the same questions. The responses were compared and consistent with long standing practices of content analysis; similar responses were placed into themes (Krippendorf, 2003). There is at least

one theme for each question and on average three general themes emerged from the responses to each question.

Table 4-10 below shows the question, responses and the general theme that developed from each of the questions. This is a sample of the presidents' responses from all of the presidents—successful and unsuccessful—with and without formal leadership education are supplied. After each response is the code president that responded. Each president was coded alphanumerically in order in which they were interviewed. The first president interviewed was given the code S1 the last was given the code S16. The interview responses are provided in quotes and are placed into themes, which are on the right hand side of the table. These themes are developed to make ready comparisons between the different types of presidents. As can be seen from the table, the responses were all similar for each theme. For example, see the response to question one: *How would you describe your leadership style when it comes to making decisions?* All the responses are similar in nature: as a result, the theme of a collaborative and participatory leadership style emerged.

Table 4-10

Presidents Responses to Interview Questions

Themes	1. How would you describe your leadership style when it comes to making decisions.?
Collaborative & Participatory (1)	• "Best decisions have the involvement of key stakeholders. I am a participatory leader"[S2] • "Information: get feed back from others then look at the data and make the decision."[S4] • "Collaborative and Participatory "Collaborative and progressive"[S5] • "Leadership is to listen to the opinions of faculty and staff looking for recommendations from the group and supporting those recommendations."[S7]

Table 4-10 (continued)

Themes	2. How do you measure success for your institution? What are the indicators of success?
Similar indicators to those used in the quantitative analysis.	• "Graduation rates, attrition rates, percentage of courses being taught by full time faculty."[S1] • "Enrollment, student learning, graduation rates, financial soundness"[S13] • "We look at graduation rates, fees, scholarships, transfer rates, job placement, student aid, and financial state."[S9] • "We use IPEDS data. Those include graduation rates, salaries, financial aid, and retention rates."[S12]
Campus Climate (3)	• "How many students participate, employee satisfaction and stake holder satisfaction." "Culture is important; need unity and unified culture."[S2] • "We look at diversity and a family environment." "Being attentive to demands of the community."[S10]

Themes	2a. Who determines those indicators?
Planning board, group, or department (4)	• "The Faculty on Quality committee "[S1] • "Recommendations on improvement every day."[S2] • "Office of instructional effectiveness" [S4] • "Office of institutional effectiveness."[S5] • "We have a planning board that has developed 12 key indicators."[S11] • "A quality imitative group."[S16]
State dictates indicators (5)	• "State board of colleges collect data and use the data."[S4] • "State of Florida has created 16 accountability measures"[S6] • "State planning board sets some goals"[S13]

Table 4-10 (continued)

Themes	**3. What experiences have you had in with leadership/management education?**
Formal education (7)	• "Community college leadership program graduate." "Educational leadership background [S1] • Two formal degrees in higher education, Masters in Ed.D." "I focus on leadership education, I have a Ph.D. in higher education." "Formal degree in international relationships" "I have a degree in English literature. I think that it is critical to my job to learn how to learn."[S4] • " Formal degree in international relationships."[S14] • "I have a degree in English literature. I think that it is critical to my job to learn how to learn."[S15]
Experience (8)	• "Academic councils, leadership in other groups a lot of on-the-job training."[S1] • "Served for 25 years as the CEO for state and national association of community colleges"[S7] • "Spoke at conferences and consulted for educational leadership programs. Focusing on employee success" [S3] • "Developed an internal leadership academy, seminars and my institution hosts the kaleidoscope leadership program."[S5] • "I have been in higher education for 42 years. Read a lot and a lot of on the job training"[S6] • "Management been VP of student's affairs and served 21 years as the president."[S8]
Short courses Seminars (9)	• "I have been to several Workshops."[S4] • "I did not have any Formal courses but I did attend a leadership academy, and I am a member of several professional leadership organizations."[S13] • "I took a course at the institute for education management, which was very helpful for the job."[S15] • "I went to the higher ed academy."[S16]

Table 4-10 (continued)

Themes	4.What or who has influenced your leadership style
Mentors— Good (10)	• "Mentor of doctoral studies, former presidents took time to mentor. One took me into his office and supported and mentored me"[S1] • "Professors in doctoral program helped me with leadership ideology. Taught me that generosity and respect were just as important as his formal leadership program."[S2] • I have been able to observe good leadership over the years"[S3] • "Found great women leaders(trail blazers), minority women leaders, all leaders who I have been in contact with"[S5] • "Two presidents mentored me in a positive way"[S6] • 'I have been influenced by working closely with college presidents in Illinois and California. Found that it is important to understand the culture of the school."[S7] • "I have worked with 5 presidents and all have influenced my leadership style."[S9] • I was mentored by the founder of this university. I learned how political the job is and how to walk though that from my mentor."[S10] • "I received an ACE fellowship where I spent a year observing a president"[S14]
Mentors—bad (11)	• "I have observed and been a recipient of bad leadership."[S3] • "Learned what not to do by watching these presidents."[S9] • "I had lots of folks but importantly I worked for a president who showed me what not to do."[S13]
Family and personal experiences (12)	• "My leadership style is a culmination of my experience."[S3] • "Culture and values formed my personal beliefs and shaped my leadership style."[S5] • "A great many people, but my uncle was my greatest influence. He was the founder of the Celtics and he showed me that everyone in an organization is important."[S15]

Table 4-10 (continued)

Themes	5. What has proven most helpful to you in understanding student graduation rates?
Raw Numbers (13)	• "The number that graduate."[S1] • "I am also data driven had a mentor help me and now I use data extensively."[S2] • "I use raw numbers to track the trends. If I am putting money into one program I should expect to see an increase in graduation rates."[S5] • "We look at IPEDS data. We are not doing as well as compared to similar schools and we are working on it."[S12] • "Comparisons to historical data and the examining of institutional trend analysis."[S16]
Age/Diversity and Student circumstances (14)	• "To some extent understanding graduation rates is understanding the community college. Have to understand the students background, skill set, age and where they are in life." [S1] • "Try to understand the students. Looking at their back ground."[S10] • "Knowing that community college students come from a diverse background."[S11] • "Community college has lots of variables in its students. Age family, work and financial aid. We try to engage the students ASAP. Focus on relationships with high schools, employers etc."[S8]
Experience (15)	• "Most helpful to me was my own experience, I am a first-generation English speaker and first in college."[S2] • "The most compelling thing that happened to me that allows me to understand student graduation rate was listening to our graduation speaker this year. She was told by her parents and high school teacher that she was not college material. She went on to get a degree at my school and a MS at another college."[S15]

Table 4-10 (continued)

Themes	6. What has proven most helpful to you in understanding faculty salaries and benefits?
Faculty are worth it (16)	• "There is a general recognition that faculty are not compensated adequately. Unfortunately their pay reflects the value that society has on teachers' pay."[S1] • "Difficult to pay what faculty truly deserve."[S7] • "Must understand how faculty fit in the roll of education. Without the faculty there is no education. Faculty must remain current, be life long learners, pay them good money and understand their roles."[S14] • " Faculty are worth it. I try to pay as much as possible I found that showing faculty exactly what you are doing is important. If you play games you get into trouble."[S8]
Comparisons across the country (17)	• "We are in the top five colleges in the state. There is a question of reality and perception. Need to get and retain quality faculty."[S3] • "I keep up with the literature and see what other colleges are offering. Knowing the data and compare to other colleges. I want are faculty to be in the top 25% for pay."[S6] • " I am aware of the data."[S7] • "We use IPEDS and normalize between schools of the same size then take an aggregate of the western states."[S13]
Collective bargaining (18)	• "Collective bargaining is a pain in the ass."[S1] • "IBA approach to negotiations is a most valuable tool, as well as being engaged in the contract. Once there is an agreement then follow it to the letter of the law."[S2] • "Experience, working with different faculty and different collective bargaining units. Now faculty requests are reasonable and they understand that there is give and take."[S4] • "No union and want to keep it that way."[S6]

Table 4-10 (continued)

Themes	7. What has proven most helpful to you in understanding financial aid and scholarships?
Don't really understand it -- have a great financial aid staff (19)	• "Practically nothing is helpful. Have good VPs who are thoroughly competent."[S13] • I have a fabulous FA director and student VP. The socioeconomics of the area ensures that 97% of high school students go to college, and FA is a big part of that "I really don't understand financial aid if is very complex."[S15] • "I have worked with good financial aid directors." We have a good financial aid."[S11] • "Have a good FA officer; 65% of our students receive financial aid."[S9]
Good Endowment program (20)	• "We have a great endowment program. The top 20% high school students can come for free if they want."[S1] • "Need to build the endowment, cannot look at state and federal government to keep funding the program."[S3] • "We have a very good endowment program which raises money for needed scholarships."[S10] • "Have put as much money as I can in an active endowment. Increased student jobs and keep costs down."[S8]
Experience/data (21)	• "My lived experience. I was eligible for financial aid. Used my experience to help students receive financial aid. I worked in student services." [S2] • "I received a lot of experience in this institution, when I got here we had a bad FA office due to poor leadership. We got that cleaned up and now have a good office."[S4] • "I look at the raw data and demographic trends. I am a national advocate for financial aid."[S5] • "I understand the need to give students the time to study. FA allows that. FA is an investment in the country, and I am an advocate of that." • We use trends and comparisons over the history of the school."[S14]

Table 4-10 (continued)

Themes	8. What has proven most helpful to you in understanding school finances?
Experience (22)	"I just approved the budget. Experience is most helpful."[S1] " I have always been involved with the budget. I have had classes through the ACC."[S12] "Living through good times and bad."[S4] 'Must be able to understand the bigger picture. How are funds allocated on the district and federal levels are most helpful." [S5] "Nothing really…Experience, learning funding formulas and going through the budget year after year."[S7]
Good CFO (23)	"A good CFO is important." [S1] "Having a very good CFO."[S2] "What has been most helpful is having a good CFO to work with. Good people in these positions are important."[S10] "Having a great VP of finance."[S16] "Having a rock solid financial manger is the most important"[S6]
Being responsible (24)	"The most helpful is being responsible for the budget." [S2] "Being responsible for it."[S15]
Course-work (25)	"Courses in graduate school were very helpful. William and Mary had a great finance course in graduate school."[S11]

Table 4-10 (continued)

Themes	9. What is your single greatest accomplishment as president?
Surviving (26)	• "Been a college president for 14 years. At that point I can impact change." • "I have been in the job for three years and the single greatest accomplishment is to move forward and to maintain stability."[S1] • "I have worked as the president for 25 years and have not gotten sideways with the organizations."[S8] • "The ability to remain fair and consistent."[S9]
Culture (27)	• "I understand org culture and have been able to change it. At first I thought it would only take 5 years but now I realize that it has take 10 years."[S1] • "I have impacted the college culture. When I first got here there was crime, etc. Now we are diverse and have many students."[S2] • "Worked hard to change the image of a two year college. We are now providing a first-rate education."[S3] • "I have built relationships and that feels great. It comes down to caring for people and cultivating relationships."[S9] • "Building a strong viable college that is serving the students right. I have a great sense of accomplishment from that."[S16]
Infrastructure (28)	• I have been able to replace the buildings and created a state of the art campus."[S4] • "I have built all kinds of facilities."[S10] • "The acquisition of capital dollars for this college over the last 10 years."S[11] • "I have created and hired 16 new faculty positions, built a new campus and have a building legacy."[S12]
Student education (29)	• "During the last accreditation cycle we did not have anything wrong with our school." [S6] • "Students are #1. I pride myself in student success."[S10] • "Seeing students achieve their dreams and watching their joy at graduation."[S14]

Table 4-10 (continued)

Themes	10. Is there anything else you would like to discuss about your leadership experience
Educations (30)	• "It is important to connect theory with applications. Note that Texas produces more community college presidents in the Ed.D. program then any other. Sitting down with presidents and watching them do their jobs has been invaluable."[S10] • "I have 28 years of leadership experience and my definition of leadership is the ability to "shepherd" a group of uncommon people to produce a common goal."[S6]
Experience (31)	• "The number one thing that I wanted to do was to find a school that I could make a difference at."[S4] • "Very important for academic leaders to get along with the people you work with. Persistence is the key to being a good leader."[S16]

Categories of Themes

There are 31 themes that were developed from the responses above. Because these themes were too numerous to make ready comparisons, they were placed into categories. This was done to reduce detail to make more ready comparisons. These general categories are Education, Experience, Decisions and Leadership Styles, Campus Operations, Campus Climate, and Student Education.

For the general category of education, there are six general themes taken from the interview responses. A specific example is question three: *What experiences do you have with leadership/management education?* This question generated two themes that fall into this category. The first theme refers to the presidents' formal education; the second refers to short courses and seminars. These themes then fall into the category of education.

Similarly, for the general category of personal experience, there were eight themes developed from interview responses. Examples of these themes include experience with the job, experience with the school finances, financial aid and

graduations rates.

The general category of decisions and leadership styles has three themes developed from interview questions. For example question one*: How would you describe your leadership style when it comes to making decisions?* generated only one response which was collaborative and participatory. Questions numbers eight and nine asking what has been most helpful in understanding student graduation rates and faculty salaries resulted in themes like raw numbers and comparisons of faculty salaries also fell into this category.

The category of campus operation includes nine themes developed from the interview responses. Examples of themes that were placed into this category are: a good financial aid staff, good endowment program, infrastructure and having a good chief financial officer.

For the general category of campus climate there were three themes that emerged. For example, question nine: *What is your single greatest accomplishment as president?* from several responses generated the theme of school culture.

Finally, for the category of student education there were two themes emerging from the interview responses. These themes included understanding the student circumstances (to better educate them, improve graduation rates and to assist in financial aid) and student education being the single greatest accomplishment in the presidents' careers.

Comparisons of Responses of Highly Successful and Unsuccessful Leaders

This section compares highly successful (H.S.) leaders to unsuccessful (U) leaders, both with and without formal leadership education from the themes found in the

interviews. As described above, the interview responses were placed into themes which

have been placed into six general categories for ready comparisons. The college

presidents, it may be recalled, had been placed into one of four groups. These groups are

highly successful presidents with formal leadership education, unsuccessful presidents

with formal leadership education, highly successful presidents with no formal leadership

education, and unsuccessful presidents with no formal leadership education.

The four groups of presidents interviewed are compared in the six tables below.

On the stub of the table lists the themes of the presidents' responses and on the head of

the table lists the types of presidents. The data are reported number of presidents in each

group responding with similar answers. The overall number of presidents, regardless of

education or success, responding similarly was also reported.

The first of these comparisons is offered in Table 4-11, below. More presidents

with formal leadership education referred to their formal education than those without

formal leadership education regardless of the success of the school. However, more

highly successful (H.S.) presidents with no formal leadership education did refer to short

courses and seminars as compared to those highly successful presidents with formal

leadership training, which is to be expected. An equivelent number of presidents, with

and without formal leadership education, referred to mentors. However, fewer presidents

with formal leadership education, either highly successful or unsuccessful (U), refer to

bad mentoring as compared to presidents without formal leadership education. This may

indicate that leadership education helps graduates avoid bad mentoring. Finally, only one

president with formal leadership education referred to his course-work in any of the

responses. Almost all presidents interviewed discussed mentors (both good and bad) in their responses.

Table 4-11

Comparisons of Presidents' Responses in the General Category of the Presidents Education

Theme	President types				Overall
	Formal Leaders		No Formal Training		
	H.S.	U	H.S.	U	
Formal Education	4	2	0	2	8
Short Courses and Seminars	1	0	0	3	4
Mentors Good	4	4	3	3	14
Mentors Bad	1	1	2	1	5
Course-work	0	1	0	0	1
Refer to education On exit question	1	1	0	0	1

Below, Table 4-12 shows the presidents' responses which fall into the general category of personal experiences. There were more highly successful presidents with and without formal leadership education who responded that experience was important in understanding the job in general, school finances, and surviving the job as compared to unsuccessful presidents with or without formal leadership education. This was also true for family and personal experience as being important in influencing their leadership style. This trend was reversed when considering experience with financial aid. That is, a higher number unsuccessful presidents both with and without formal leadership education

found experience helpful to understanding financial aid. Most of the presidents,

regardless of their education responded that experience was important to understanding

the job, financial aid, and school finances.

Table 4-12

Comparisons of Presidents' Responses in the General Category of Personal Experience

| Themes | President types | | | | Overall |
| | Formal Leaders | | No Formal Training | | |
	H.S.	U	H.S.	U	
Experience with Job	4	2	3	1	10
Family & Personal Experience	3	1	2	0	6
Experience with Student Graduation Rates	1	0	0	1	2
Experience with Financial Aid	3	3	1	3	10
Experience with School Finances	3	2	3	3	11
Being Responsible For School Finances	1	0	0	1	2
Surviving the Job	1	1	3	0	5
Refer to experience On last question	1	0	1	1	4

Considered next, Table 4-13 regards the presidents' responses that fall into the

general category of decisions and leadership style. Interestingly, most of the presidents

with formal leadership education, both successful and unsuccessful, used raw numbers to

help them understand graduation rates. All presidents interviewed felt that they are participatory when making decisions. Finally, the majority of presidents made comparisons to other colleges across the nation to help them understand faculty salaries and benefits.

Table 4-13

Comparisons of Presidents' Responses in the General Category of Decisions and leadership styles

	President types				
Theme	Formal Leaders		No Formal Training		Overall
	H.S.	U	H.S.	U	
Collaborative & Participatory	5	4	3	4	16
Graduation rates Raw Numbers	4	3	0	1	8
Comparisons of Faculty Salaries	1	4	3	3	11

Next, Table 4-14 shows the presidents' responses which were placed in the general category of campus operations. Virtually all presidents, 15, actually use those indicators from IPEDS to judge how successful their schools are. Additionally, a high number of presidents use internal planning boards, or committees to help them decide what indicators to use. Only three presidents responded that their state or accreditation body dictates indicators of success for their school. Interestingly, a greater number of successful presidents both with and without formal leadership training responded that

having a good endowment programs and good financial aid staff was important for their

students for scholarships and student aid.

Table 4-14

Comparisons of Presidents' Responses in the General Category of Campus Operations

Theme	President types				Overall
	Formal Leaders		No Formal Training		
	H.S.	U	H.S.	U	
IPEDS Or Similar	4	4	3	4	15
Planning Boards	4	4	2	1	11
State	1	0	1	1	3
Outside Accreditation Agencies	2	0	0	1	3
Collective Bargaining	3	1	0	0	4
Good FA Staff	1	2	1	2	6
Good Endowment Program	2	1	3	1	7
Good CFO	3	1	3	3	10
Infrastructure	1	3	0	0	4

Table 4-15 below shows the number of the presidents' responses which were

placed in the general category of campus climate. A greater number of presidents, both

highly-successful and unsuccessful, with formal leadership education responded that they

use campus climate as indicators for institutional success. Additionally a larger number

of highly-successful presidents, both with and without formal leadership education,

responded that faculty are worth the money. Interestingly, all highly-successful presidents with formal leadership education believe that their greatest accomplishment is creating a positive campus culture.

Table 4-15

Comparisons of Presidents' Responses in the General Category of Campus Climate

Theme	President types				Overall
	Formal Leaders		No Formal Training		
	H.S.	U	H.S.	U	
Campus Climate As Indicators	3	1	0	1	5
Faculty are Worth the Money	2	0	2	1	5
Culture	5	0	1	3	9

Finally, Table 4-16, shows the presidents' responses for the general category of student education. A greater number of highly successful presidents, both with and without formal leadership education consider students' age, diversity, and circumstances helpful when examining graduation rates. In contrast, a greater number of unsuccessful presidents with formal leadership education considered a high-quality education for students as one of their greatest accomplishments.

Table 4-16

Comparisons of Presidents' Responses in the General Category of Student

Education

Theme	President types					
	Formal Leaders			No Formal Training		Overall
	H.S.	U		H.S.	U	
Age Diversity & Student Circumstances	3	2		3	2	10
Student Education	0	2		1	1	4

Content Analysis Summary

In describing their leadership styles, respondents gave highly similar responses.

All presidents responded that they were collaborative leaders when it came to making

decisions. Similarly, virtually all responded that they either use IPED or similar

indicators to measure their institutions' success.

There were some marked differences between presidents with and without formal

leadership training. All presidents with formal leadership education referred to their

education at least once in their interview. In contrast, only two presidents with no formal

leadership education responded that their education was important.

Additionally, highly successful presidents, regardless of their education,

commented that they had good endowment programs. Finally, highly successful

presidents with a formal leadership education all responded that creating a positive

culture was one of their greatest accomplishments. None of the unsuccessful leaders with formal leadership responded similarly.

Implications of the Qualitative Content Analysis for the Quantitative Analysis

The content analysis is designed to find specific traits of college presidents with and without formal leadership training. Not surprisingly, the presidents' responses and attitudes can be compared to the results of the quantitative analysis.

This section relates the responses and attitudes of presidents with and without formal leadership training to the results from the quantitative section. In particular, this section examined the responses and attitudes of highly successful president to find if they are different in attitudes for unsuccessful presidents.

An important fact is that during the interviews most college presidents use indicators that are found in or are similar to the IPEDS data. This is important because the indicators of success used in this study are accepted—and routinely used as—indicators by the colleges. In this case, the content analysis validated the quantitative analysis. It is apparent from all presidents interviewed that the indicators are important not only for them, but also for the state and accrediting bodies, as well. Therefore, the choices of indicators in the quantitative analysis should give future researchers confidence in using these indicators of success drawn from IPEDS.

High faculty salaries are another example of where the content analysis validated the quantitative analysis. Presidents who are highly successful, either with or without formal leadership training, have the attitudes that faculty are worth the money. In those cases, these colleges tend to spend more on their faculty than do presidents of colleges that are unsuccessful. Additionally, presidents with a formal leadership degree stated they

have positive relations with the faculty collective bargaining units at the schools they work.

Presidents from schools with high graduation rates all have similar attitudes about their understanding of those rates. These highly successful presidents, with or without formal leadership education, feel that it is important to understand the students in terms of their goals, the students' ages and the students' background. Additionally, these presidents also responded that it was important to understand and use the raw numbers on graduation, by department and by cohort, when making decisions.

The topic of scholarship and grants is another example of where presidents who lead highly successful schools differ from those who don't. These presidents indicated that they have highly successful endowment programs. The quantitative data examined earlier supports their claim. That is these presidents have more scholarships and money awarded to students than colleges that are unsuccessful.

Finally, presidents' attitudes about school finances also support the findings in the quantitative analysis. A higher proportion of presidents with or without formal leadership education believe that experience is key to understanding school finances. These schools also have higher school finances both private and public then those schools that are unsuccessful.

<div align="center">Chapter Four Summary</div>

This chapter reported the statistical results of data taken from the IPEDS database from 100 schools that were led by presidents with formal leadership education and 100 schools led by presidents without formal leadership education. Additionally, this chapter reported a content analysis of responses of sixteen highly successful and unsuccessful

presidents with and without formal leadership degrees. Through the use of both narrative and tabular descriptions, the chapter presented the results for the quantitative analysis and the content analysis. Although too numerous to summarize in detail, particular similarities and distinct differences existed among schools led by presidents with formal leadership degrees and those schools led by presidents without formal leadership degrees. Further similarities and differences were found in the content analysis, which in many ways supported the findings of the quantitative analysis. It is important to note that although the results are mixed, it is apparent the presidents with formal leadership education do head successful schools; in particular, these presidents are very successful in two-to-four year schools. A discussion of the studies findings, including a summary of such similarities and differences, is provided in Chapter Five.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMENDATIONS

Introduction

Prompted in part by decades of criticism of leadership programs, the research reported here has examined the obvious issue implied in a much more straightforward manner than previous studies. That is: Do leadership programs produce successful leaders? Previous evaluations of programs have overwhelmingly examined such things as curriculum content, faculty quality, and student satisfaction. In contrast this research sought to examine the relationship between leadership education and college success.

Summary and Discussion of Findings

The present study addressed the central notion of the debate; namely, does leadership education make a difference for the organizational well being of the organizations headed by presidents so educated?

A two phase mixed-methodological approach was employed. First, was a quantitative study of measure in which indicators of success are compared between universities and colleges headed by presidents with formal leadership training and those with none. The second phase of the study was a structured telephone interview of presidents identified from the quantitative study in order to understand the attitudes, traits and importance of their education of successful and unsuccessful presidents with and without formal leadership education. The following sections are descriptions of the results placed in a manner as to answer the research question and sub-questions raised at the outset.

Research Questions

Research Question 1: What is the distribution of leaders with formal leadership education in colleges and universities across Carnegie classifications?

The first sub-question was designed to determine the types of schools where presidents with formal leadership education are employed. In the random sample employed leaders with formal leadership education are distributed fairly evenly among different college types. Forty-nine percent of presidents with formal leadership education are employed two-to-four year schools, whereas 51 percent are employed at four-or-more year schools. However, this distribution does differ substantially from presidents without formal leadership education. Only 26 percent of presidents without formal leadership education led two-to-four year colleges, while 74 percent led four-or-more year schools. Compared to presidents without formal leadership training, presidents with formal leadership education are more concentrated in the two-to-four year colleges, where they are particularly numerous in the medium sized schools (1,000-5,000 students) and the large sized schools (greater than 5,000 students).

Educational leadership was the most common degree among the presidents with formal leadership education; 84 of the 100 presidents had such degrees. There were 13 presidents with business administration degrees and only three presidents with a public administration degree in the sample. As mentioned in Chapter Four, no presidents with degrees in military leadership were found in the sample. The distribution of presidents with formal leadership education by type of degree shows some differences. In two–to-four year colleges there were fifty-three percent of presidents with degrees in educational

leadership as compared to 30 percent of presidents with graduate degrees in business administration, while no president had advanced degrees in public administration led two-to-four year schools. Forty-seven percent of presidents with degrees in educational leadership led four-or-more year schools, compared to 70 percent presidents with graduate degrees in business administration and 100 percent of presidents with degrees in public administration.

Thus, presidents with formal leadership education seem to occupy a niche. That is, these presidents tended to led two-to-four year colleges. Among the three formal leadership degrees considered, educational leadership, business administration, and public administration, educational leadership is more common and those presidents are concentrated in the two-to-four year colleges.

Research Question 2: What is the relationship between formal leadership education and various indicators of success such as enrollments, program completion, graduation rates, faculty and staff finances, school financial data, and student financial aid?

From the outset of this research this question was posed in a general form. As the research progressed it was apparent that the comparisons of presidents with and without leadership education was the significant point of the research. These comparisons are examined thoroughly below.

Research Question 3: Are there differences between those leaders who have and have not had a formal leadership education and are and are not successful?

As with question two, this is addressed with the IPEDS data. Together these two questions represent the heart of this research. As can be seen from the data presented in Chapter Four, there are differences between presidents with and without formal

leadership education. The indicators of success were placed into three general categories: admission selectivity and student characteristics, student support and success, and school resources. There are statistically significant differences in each category between leaders with and without formal leadership education when not considering school size and purpose.

Considering admissions selectivity and characteristics of students, which has ten indicators, schools that employ presidents with formal leadership training have significantly lower tuition and out-of-state tuition. In contrast, presidents with no formal leadership training head schools that have significantly higher mean SAT verbal scores, SAT math scores, and significantly higher mean composite ACT scores.

Turning to student support and success, which has nine indicators, schools that employ presidents with formal leadership education have significantly higher two-year graduation rates. In contrast, schools that employ presidents without formal leadership degrees have significantly higher average state and local aid per student, and higher average student loans. There were no other significant differences between the two groups in any other indicator in this category.

In the case of school resources, the final category, having six indicators, schools that employ presidents without a formal leadership education have significantly higher nine-and twelve-month benefits and significantly higher nine-month salaries. All other categories in this category did not differ significantly between the two groups.

Additionally, when considering the odds ratio for all of the indicators, schools that employ presidents without formal leadership degrees are about seven times more likely to be successful than schools that employ presidents with formal leadership degrees.

In conclusion, there are few statistical differences between schools that are led by presidents with formal leadership degrees compared to those without formal leadership education. Of particular note is that the two-year student graduation rate is higher for students with leaders with formal leadership degrees. This point is of practical importance because employees with a associate's degree earn 25% more over a lifetime of work compared to an employee with only a high school education (Porter, 2002).

However, when examining the odds ratio, it is apparent the leaders without formal leadership education have a higher probability leading successful schools than those presidents with formal leadership education. An important question that remains to be answered is: How do schools of similar sizes and purpose with presidents that do and do not have formal leadership education compare? This will be addressed in the following section which compares presidents with and without formal leadership education in similar school types and sizes.

Research Question3i: Within each group what are the most successful and least successful outcomes?

After comparing schools that employ presidents with and without leadership education, the next important question is: in which indicator(s) are these school most successful? The most successful indicators for either group of presidents, with or without leadership education, are those that are consistently better than the other group despite school size and purpose. The most successful group of indicators for schools that employ presidents with formal leadership education are out of state tuition, total tuition, 12-month faculty salaries, average federal grant dollars per student, percent of students receiving federal grant aid, percent of students receiving federal loan aid, and two year

graduation rates. The most successful group of indicators for schools of any type or size that employ presidents with no formal leadership education are the college affordability index, all of the SAT and ACT composite scores, admissions yield, faculty benefits, nine-month faculty salaries, average state and local aid per student, average student loan dollars per student, private revenue and four-year graduation rates.

It is apparent from the data that schools with presidents with formal leadership education do a better job keeping tuition lower. However, this may be that these schools are less prestigious than schools that employ leaders without formal leadership education. The fact the schools with presidents with no formal leadership education accept students with higher SAT and ACT scores suggests as much. However, this argument is somewhat mixed; presidents with formal leadership education may be keeping tuition low to attract students.

Schools with presidents with formal leadership education also do a better job of securing federal grants and more students obtain student loans. However, students from schools that have presidents with no formal leadership education secure more state and local aid, which suggests a bigger endowment.

Schools with presidents without formal leadership education have higher benefits and nine-month staff and faculty salaries compared to presidents with formal leadership education. Finally, the graduation rates are mixed. Two-year graduation rates are higher in schools that employ presidents with formal leadership education, and the opposite is true for four-year graduation rates.

These data demonstrate that there are indicators in which each type of president, those with and without formal leadership education, is proficient. These results are of

practical importance for schools searching to boost one or two aspects of the program.

For example, if two-to-four year colleges are in need of increasing graduation rates and

are in search of a president, then a president with a formal leadership education is more

likely to meet that goal than one without.

Research question 3ii: How do individual leadership situations, such as degree type and

Carnegie classification, to indicators of success compare between and within groups?

The results of comparing schools with and without formal leadership training are

mixed, but the data do slightly favor schools with presidents with no formal leadership

training. However, when controlling for Carnegie classification, in school size and

purpose, it is apparent from the findings in Chapter Four that leaders with no formal

leadership education are more successful in all sizes of four-or-more year colleges and

leaders with formal leadership education are more successful in all sizes of the two-to-

four year colleges as compared to those without leadership education. That is there is a

niche in which presidents with formal leadership education work, and they are successful

in their niche.

When controlling for school size and purpose, and comparing schools with

presidents who have and don't have formal leadership training, there are few significant

differences. When examining all sizes of four-plus year schools, the total cost of tuition

is significantly lower and the percent of students receiving state and local aid is

significantly higher in medium sized four-or-more year schools that employ presidents

with formal leadership education. Similarly, the percent of students receiving federal aid

and federal grant aid is significantly higher with schools that employ presidents with

formal leadership education in large schools. In contrast, in both small and large schools

the SAT Math score is significantly higher for schools that employ presidents with no

formal leadership education. Similarly, ACT scores and faculty benefits are significantly

higher in schools that employ leaders with no formal leadership education. The odds of

success in small four-or-more year schools with presidents without formal leadership

education are about five times greater; in large schools they are about three and a half-

times more likely to be successful than schools with presidents with formal leadership

education. In medium-sized schools, where there is an equal number of presidents with

and without formal leadership education, the odds of either group of being successful are

essentially the same.

For two-to-four years schools, the trend is opposite of what was found for four-or-

more years schools. That is, presidents with formal leadership education lead schools

that are more successful than schools with presidents without formal leadership

education. As before, there are few significant differences among indicators of success

between schools that employ presidents with and without formal leadership education.

However, the odds favor schools with presidents with formal leadership education and

are on average about two times more likely to be successful than schools that employ

presidents with no formal leadership education.

From the data, another question suggested itself. Namely, does the type of

credential—for both those with and without leadership education—make a difference?

When comparing presidents with formal leadership degrees, it is apparent that schools

that employ presidents with degrees in business administration are more successful than

presidents with educational leadership based on the indicators of success. As before, there

are few significant differences between presidents with educational leadership and

business administration. However, schools that employ presidents with degrees in business administration, are three-and-one-half more likely to be more successful the indicators of success than presidents with educational leadership degrees.

Presidents with business administration head schools that are more successful than presidents with educational leadership. An important question from this result is: When presidents with business administration degrees are removed from the sample, what happens when comparing schools that employ presidents with educational leadership only to schools that employ presidents with no formal leadership education? Stated another way: are the successes noted for those with leadership training largely due to those with a background in business administration? With presidents who have business administration degrees removed, the trend of schools with presidents with formal leadership education being more successful than schools with presidents without formal leadership education remains. That is, presidents with educational leadership degrees preside over more successful school than presidents with no formal leadership degree.

Similarly, presidents with no formal leadership degree were broken down into two main categories of terminal degrees: humanities and behavioral sciences. As above, there were few significant differences between these two groups. The odds are that presidents with degrees in humanities are about two-and-one-half times of being more successful than schools that employ presidents with degrees in behavioral sciences.

To return to the major point, there is a difference between presidents with and without leadership education. Four-or-more year schools, of any size, that employ presidents without formal leadership education are more successful than schools with

presidents with formal leadership education. In sharp contrast, two-to-four year schools (of any size) that employ leaders with formal leadership education are more successful than their counterparts. Additionally, although presidents with graduate degrees in business administration are more successful than presidents with educational leadership in the two-to-four year schools, comparing presidents with educational leadership degrees, to their counterparts, the effect of the benefit of presidents with formal leadership education being more successful remains.

The quantitative data show that there are differences between presidents with and without formal leadership training. However, the quantitative analysis is silent about the attitudes and perspectives of college presidents in terms of their experiences and their education. The following sections summarize the attitudes and perspectives of highly successful and unsuccessful presidents gained from the telephone interviews.

Research Question 4: Do leaders believe that formal leadership education prepares college presidents for understanding and enhancing indicators of success such as graduation rates, faculty salaries, scholarship monies and/financial aid, and school finances?

The content analysis of the interviews was designed to answer this question. It was expected that presidents would reference their education and even specific classes when discussing indicators of success. In only one instance did any president interviewed mention any specific class (a finance course) that he thought helpful for budgeting at his school.

An important point is that all presidents use IPEDS data and other similar data as indicators of school success. This is an important fact that lends validity to the current

study and to future studies. The conclusion from this information is that future quantitative studies measuring college and university success can use indicators from IPEDS with a high degree of confidence that these indicators are accepted by colleges and universities across the nation.

While specific classes were not mentioned in the interviews of presidents with formal leadership education, all referenced their formal education as being important. In contrast, only 25% of presidents with no formal leadership mention their formal education as being important in their current position.

Research Question 5: What do leaders of all kinds find valuable in their education or experiences?

Most presidents, whether with or without formal leadership education valued mentors, experience on the job, experiences with financial aid and school finances as important factors in understanding and performing in their current positions. Additionally, presidents valued having competent subordinate administrators.

Presidents with formal leadership training felt that comparing graduation rates to like and similar colleges was helpful in understanding and affecting graduation rates. Interestingly, highly successful presidents with formal leadership education focused on the quality of the culture of their school in terms of faculty and as indicators of success at a much higher rate than unsuccessful presidents with formal leadership education.

Most presidents with no formal leadership education felt that a good chief financial aid officer was most helpful in understanding school finances at a much higher rate than presidents with formal leadership education. This may be an indication that

presidents with formal leadership education are better prepared in their course-work for finances compared to those presidents with no formal leadership education.

Overall Conclusions

There are several important conclusions that can be drawn from this research. These include advantages or disadvantages to leadership education, what is being taught in leadership programs and short courses, potential guidelines for college search committees on degree type of potential presidents, and the fact that the current detractors of leadership programs are overly negative and have based their criticism in the absence of critical comparisons such as those made in this study.

First, there is no obvious advantage or disadvantage to formal leadership education when comparing across all Carnegie classifications. The evidence is too mixed across all school types and sizes. Each group of presidential academic qualifications are associated with some success. However, there are some differences when comparing school types and sizes. Namely, there is a niche where presidents with formal leadership education are most successful. While presidents with no formal leadership education presided over relativity successful four-or-more year institutions compared to presidents with no formal leadership education, presidents with formal leadership education preside over more successful institutions as compared to presidents with no formal leadership education.

Second, there are some distinct differences between presidents with formal leadership education by the type of degree. Presidents with business administration degrees preside over more colleges with greater scores on IPEDs data than do those who have degrees in educational leadership. These schools have more students receiving

federal grants more students receiving state and local aid and student loan aid, higher

private revenue, higher faculty benefits and nine-month faculty salaries. These are

precisely the types of financial indicators that are taught in business administration

coursework (AASB, 2008). It is readily surmised that business administration

coursework focuses in greater depth on financial aspects of institutions than do presidents

with educational leadership. Similarly, presidents with educational leadership degrees

preside over institutions with higher student success rates, lower tuitions, and generally

higher financial aid per student compared to presidents with business administration.

Again, it would be reasonable to expect that these rates would be higher with educational

leadership, as student focused education is at the core of that curriculum (Baker et al.,

2007).

Analysis of the interviews with the presidents also leads to several important

conclusions. Although presidents did not reference individual course-work *per se*, all the

presidents interviewed with formal leadership education did reference their formal

leadership education regardless of whether they were highly successful or unsuccessful.

This indicates that the presidents did think their education was important to their current

position. Additionally, because of the different responses, especially about finances, it is

apparent that presidents with formal leadership education are more prepared for the

financial aspects of running schools as compared to presidents with no formal leadership

education.

The previous conclusion on the area in which presidents are successful extend

themselves to an obvious and important fact. Colleges that are conducting a presidential

search should examine their own indicators and those areas which there is needed

improvement. The search should then be focused on presidential degree that would give the college the needed improvement. That is, if a college is lacking in student-centered services such as graduation rates or student success, then the search committee should focus on candidates with degrees in educational leadership. Conversely, if colleges need improvement in financial matters then the search should focus on candidates with degrees in business administration.

Additionally, as can be seen from Chapter Two, the core curriculum of leadership programs are highly similar. Even short courses and seminars read like the course requirements of any of the leadership programs (AACC, 2007). It is important to note that even college presidents who do no have a formal education in any leadership program, value the courses and the content that are found in these programs. Indeed as can be seen from the content analysis, they refer to the content of those courses frequently.

In many ways the most important conclusion from this research is that the criticisms of leadership programs have been inaccurate at best. The focus of the criticisms, discussed in Chapter Two, of all the leadership programs centered on the quality of students, the faculty the research and the quality of the curriculum. The data presented in Chapter Four contradict those specific criticisms.

The students of these leadership programs were successful in their careers and they held the most senior position in a college and university. Indeed, where presidents with formal leadership education are most concentrated, they have higher odds of being more successful than presidents without formal leadership education.

The interviews of the presidents suggested that the presidents used data in making decisions. Although this does not directly show that the research from those programs was good, it does show that the presidents do know how to use data to make decisions and understand the differences between good data and bad data, essentially making them connoisseurs of research.

In interviews the presidents all commented on the importance of mentoring, many of whom commented on the faculty in their formal leadership education, indicating the quality of the faculty they encountered while obtaining their formal leadership education. Finally, presidents with formal leadership education commented on their formal education referring to its importance in their current role.

The criticisms of leadership programs are essentially one dimensional. That is weaknesses in such programs are reported by insiders and there are no comparisons to other programs. It is not hard to imagine that academics such as chemists, historians, psychologists or members of any other discipline could find fault in other programs around the country. Had the detractors of leadership programs conducted empirical studies investigating the relationship of institutional success to the education of the leader, they would have reached other conclusions and been saved from potential embarrassment of being shown wrong from systematic studies such as this one.

<center>Recommendations for Leadership Education Programs</center>

The findings for this research have some clear implications for the programs of leadership education. Clearly, nothing was encountered here to support the radical proposal that programs be abandoned in their entirety. In other words detractors such as Art Levine are incorrect in their assertions.

First, as part of any curriculum, it is apparent from the interviews that college presidents rely on their experience. Additionally, a number of common recommendations for program change in public administration, business administration, and educational leadership were developing a mentoring system, and developing real-life problems (Liberatore & Nydick, 2001; Hoaas & Wilcox, 1996; SREB, 2007). From the results of this research it is apparent that presidents value experience. Therefore, it is recommended that leadership programs implement a curriculum that uses real-life problems such as balancing a university budget, practice negotiating salaries, and increasing endowment programs, interacting with governing boards, community leaders and other external constituencies.

Mentoring was important for those presidents interviewed. Programs that implement mentoring should include working with school districts, universities, public government, and business, and may want to consider ongoing mentoring after students leave the university. Programs should pair students with leaders for a specific time with the intention of not only learning what the leaders specifically do, but to develop networking relationships. Afterward the student should present their experience and or findings to the faculty.

Presidents with degrees in business administration were more successful than presidents with educational leadership degrees, especially in financial matters. For students of educational leadership, whose goals include a college presidency, more required course-work in finance would be helpful, especially higher education finance would seem essential. The recommended courses include a macroeconomics and microeconomics as well as selected finance courses. Finally, as an important aspect, these

courses should include not only a detailed description of how to interpret and understand the data found in IPEDS, but also how to make sound decisions from these data.

The interviews showed that most presidents either used IPEDS data or data similar IPEDS. Leadership programs should implement courses that focus on these types of indicators, giving students the knowledge on how to understand and use data. This course would focus more on being a knowledgeable user of data rather than being a researcher.

Finally, leadership programs might aim for the niche in which presidents with formal leadership training were most successful in terms of recruiting and placing students. From this research, it is apparent that presidents with formal leadership training are most successful in two-to-four year schools. Leadership programs should focus on recruiting faculty as prospective students from these schools who are interested in the college presidency. Additionally, leadership programs should provide networking opportunities for their graduate students in order to help in job placement.

<div align="center">Recommendations for Future Research</div>

Research typically not only answers questions but raises new ones, as well. The present study is no exception. The following are specific recommendations for future research:

1. The present research examined the presumed impact of college presidents trained in leadership education. Nothing is known about how typical it is for such education to lead to senior-level positions such as the presidency. Accordingly, the more general way to assess the effectiveness of leadership education is to examine the distribution of graduates from these programs

related to their first and final occupations. This study should be done for multiple programs across multiple disciplines. Graduates of these programs can be surveyed as to their work history in terms of the positions that they held. Then, these data can be linked to the current study to determine the efficacy of leadership programs.

2.   Next in importance would be a longitudinal study. This should be conducted in order to determine what positions are held by graduates of a specific leadership programs. The results of this study can be used to focus a program in an area where most of the program's graduates work.

3.   Research could be conducted that uses the results of or in conjunction to the first two studies, and would use leadership indicators such as those described by Kouzes & Posner (1988) to determine the predictability of successful leadership. This study would identify the most successful presidents; administer to them the leadership indicator survey, and then correlate the traits with the most successful presidents to the indicators. The results of this study could be used to identify successful candidates for leadership positions.

4.   Because most educational leadership programs prepare graduates for K-12 positions, research should be conducted to determine whether doctoral candidates choose educational leadership with the goal of the college presidency. Along with this research, it is important to determine how many, if any, educational leadership programs specifically prepare graduates for leadership positions in colleges and universities.

5.   Finally, because of the presidents interviewed overwhelming believe that their leadership style is collaborative in nature; research should be conducted that examines not only what they define as collaborative leadership styles, but also what their subordinates believe that their leadership style is.

Endnote

Leadership programs have evolved in similar and somewhat notorious histories. They are here to stay, and have benefited many. Criticisms of these programs seem to be ever-present in all of the programs, with little or no data to justify the harsh critiques published.

The present research provided substantial evidence that there is no need for leadership programs to be defensive. We live in an ever-changing world, and leaders, especially those who can adapt to change, are needed in all spheres or our complex society. It is hoped that this research makes a modest contribution toward indicating how leadership education has affected higher education and how leadership education programs can be improved.

APPENDIX A

CARNEGIE CLASSIFICATIONS

The Carnegie classification system has three basic categories: undergraduate, graduate, and "size and setting." The undergraduate and size and setting categories each have 17 subcategories. The graduate category has 18 subcategories (carnegiefoundation.org, 2006).

Undergraduate

The instructional undergraduate program classification is based on three pieces of information: the level of undergraduate degree awarded, the proportion of bachelor's degree majors in the arts and sciences and in professional fields, and the third classification is based on the extent to which an institution awards graduate degrees in the same fields in which it awards undergraduate degrees. Short descriptions of the undergraduate categories are as follows (taken from www.carnegiefoundation.org):

- **Assoc:** Associate's. According to the degree data these institutions awarded associate's degrees but not baccalaureate level.

- **Assoc-Dom:** Associate's Dominant. These institutions awarded both associates and bachelor's degrees, but the majority of degrees awarded were at the associate's level.

- **A&S-F/NCG**: Arts and sciences focus, no graduate coexistence. According to the degree data, at least 80 percent of bachelor's degree majors were in the arts and sciences, and no graduate degrees were awarded in fields corresponding to undergraduate majors.

- **A&S-F/SGC:** Arts and science focus, some graduate coexistence. At least 80

percent of bachelor's degree majors were in the arts and sciences, and graduate degrees were observed in some of the fields corresponding to undergraduate majors (but less than half).

- **A&S-F/HGC**: Arts and sciences focus, high graduate coexistence. At least 80 percent of the bachelor's degree majors were in the arts and sciences, and graduate degrees were observed in at least half of the fields corresponding to undergraduate majors.

- **Bal/NGC**: Balanced arts & sciences/professions, no graduate coexistence. According to the degree data, bachelor's degree majors were relatively balanced between arts and sciences and professional fields (41–59 percent in each), and no graduate degrees were awarded in fields corresponding to undergraduate majors.

- **Bal/SGC**: Balanced arts & sciences/professions, some graduate coexistence. Bachelor's degree majors were relatively balanced between arts and sciences and professional fields (41–59 percent in each), and graduate degrees were observed in some of the fields corresponding to undergraduate majors (but less than half).

- **Bal/HGC:** Balanced arts & sciences/professions, high graduate coexistence. Bachelor's degree majors were relatively balanced between arts and sciences and professional fields (41–59 percent in each), and graduate degrees were observed in at least half of the fields corresponding to undergraduate majors.

- **Prof+A&S/NGC**: Professions plus arts & sciences, no graduate coexistence. According to the degree data, 60–79 percent of bachelor's degree majors were

in professional fields (such as business, education, engineering, health, and social work), and no graduate degrees were awarded in fields corresponding to undergraduate majors.

- **Prof+A&S/SGC**: Professions plus arts & sciences, some graduate coexistence. 60–79 percent of bachelor's degree majors were in professional fields, and graduate degrees were observed in some of the fields corresponding to undergraduate majors (but less than half).

- **Prof+A&S/HGC**: Professions plus arts & sciences, high graduate coexistence. 60–79 percent of bachelor's degree majors were in professional fields, and graduate degrees were observed in at least half of the fields corresponding to undergraduate majors.

- **Prof-F/NGC**: Professions focus, no graduate coexistence. According to the degree data, at least 80 percent of bachelor's degree majors were in professional fields (such as business, education, engineering, health, and social work), and no graduate degrees were awarded in fields corresponding to undergraduate majors.

- **Prof-F/SGC**: Professions focus, some graduate coexistence. At least 80 percent of bachelor's degree majors were in professional fields, and graduate degrees were observed in some of the fields corresponding to undergraduate majors (but less than half).

- **Prof-F/HGC:** Professions focus, high graduate coexistence. At least 80 percent of bachelor's degree majors were in professional fields, and graduate degrees were observed in at least half of the fields of undergraduate majors.

Graduate

The Carnegie Classification system uses the graduate instructional program in addition to the undergraduate classification. This classification looks at the nature of graduate education with a focus on the types and mix of graduate programs. Graduate-level degrees awarded (masters, professional, or doctoral) qualify the school to be in this classification, and also the number of fields that have graduate programs. Short descriptions of the graduate categories are as follows (taken from www.carnegiefoundation.org):

- **S-Postbac/Ed**: Single Post baccalaureate (education). Based on the degree data, these institutions award master's degrees in education but not in other fields.

- **S-Postbac/Bus**: Single Post baccalaureate (business). Based on the degree data, these institutions award master's degrees in business but not in other fields.

- **S-Postbac/Other**: Single Post baccalaureate (other field). Based on the degree data, these institutions award masters or professional degrees in a single field other than education or business.

- **Postbac-Comp**: Post baccalaureate comprehensive. According to the degree data, these institutions award master's degrees in the humanities, social sciences, and STEM fields (science, technology, engineering, and mathematics), and degrees in one or more professional fields.

- **Postbac-A&S:** Post baccalaureate, arts & sciences dominant. These institutions award master's degrees in some arts and sciences fields. They may

also award masters or professional degrees in other fields, but in lesser numbers.

- **Postbac-A&S/Ed**: Post baccalaureate with arts & sciences (education dominant). These institutions award master's degrees in some arts and sciences fields as well as degrees in professional fields, and the plurality of graduate degrees are in education.

- **Postbac-A&S/Bus**: Post baccalaureate with arts & sciences (business dominant). These institutions award master's degrees in some arts and sciences fields as well as degrees in professional fields, and the plurality of graduate degrees are in business.

- **Postbac-A&S/Other**: Post baccalaureate with arts & sciences (other dominant fields). These institutions award master's degrees in some arts and sciences fields as well as degrees in professional fields, and the plurality of graduate degrees are in a professional field other than business or education.

- **Postbac-Prof/Ed:** Post baccalaureate professional (education dominant). According to the degree data, these institutions award master's or professional degrees in professional fields, and the plurality of graduate degrees are in education.

- **Postbac-Prof/Bus**: Post baccalaureate professional (business dominant). According to the degree data, these institutions award master's or professional degrees in professional fields, and the plurality of graduate degrees are in business.

- **Postbac-Prof/Other**: Post baccalaureate professional (other dominant fields).

According to the degree data, these institutions award master's or professional degrees in professional fields, and the plurality of graduate degrees are in a field other than business or education.

- **S-Doc/Ed**: Single doctoral (education). Based on the degree data, these institutions award doctoral degrees in education but not in other fields (they may have more extensive offerings at the master's or professional level).

- **S-Doc/Other:** Single doctoral (other field). Based on the degree data, these institutions award doctoral degrees in a single field other than education (they may have more extensive offerings at the master's or professional level).

- **CompDoc/MedVet:** Comprehensive doctoral with medical/veterinary. According to the degree data, these institutions award doctoral degrees in the humanities, social sciences, and STEM fields, and they also award degrees in medicine, dentistry, and/or veterinary medicine. They also offer professional education in other health professions or in fields such as business, education, engineering, law, public policy, or social work.

- **CompDoc/NMedVet:** Comprehensive doctoral (no medical/veterinary). According to the degree data, these institutions award doctoral degrees in the humanities, social sciences, and STEM fields. They also offer professional education in fields such as business, education, engineering, law, public policy, social work, or health professions other than medicine, dentistry, or veterinary medicine.

- **Doc/HSS:** Doctoral, humanities/social sciences dominant. According to the degree data, these institutions award doctoral degrees in a range of fields, with

the plurality in the humanities or social sciences. They may also offer

professional education at the doctoral level or in fields such as law or

medicine.

- **Doc/STEM**: Doctoral, STEM dominant. According to the degree data, these

  institutions award doctoral degrees in a range of fields, with the plurality in

  the STEM fields. They may also offer professional education at the doctoral

  level or in fields such as law or medicine.

- **Doc/Prof**: Doctoral, professions dominant. According to the degree data,

  these institutions award doctoral degrees in a range of fields, with the plurality

  in the professions other than engineering (such as education, health

  professions, public policy, or social work). They may also offer professional

  education in law or medicine.

Size and Setting

Size and the setting is the final category of school classification. This

classification examines the size of the school and the total number of students living on

campus, and only includes undergraduate schools. Size does seem to matter in schools.

The size of the school indicates the school complexity, culture and other finances

(Carnegie Foundation, 2007).

This classification is divided into a full time equivalent (FTE) enrollment, and

three categories of residential character. Because few two-year institutions have

residential capabilities, these are only classified by the FTE category. Residential

categories are based on the ratio of full-time students seeking undergraduate degrees and

the number of residential full-time students (Carnegie Foundation, 2007).

Short descriptions of the graduate degrees by size and setting categories are as follows (Carnegie Foundation, 2007):

- **VS2**: Very small two-year. Fall enrollment data show FTE enrollment of fewer than 500 students at these associate's degree granting institutions.

- **S2**: Small two-year. Fall enrollment data show FTE enrollment of 500–1,999 students at these associate's degree granting institutions.

- **M2**: Medium two-year. Fall enrollment data show FTE enrollment of 2,000–4,999 students at these associate's degree granting institutions.

- **L2**: Large two-year. Fall enrollment data show FTE enrollment of 5,000–9,999 students at these associate's degree granting institutions.

- **VL2:** Very large two-year. Fall enrollment data show FTE enrollment of at least 10,000 students at these associate's degree granting institutions.

- **VS4/NR:** Very small four-year, primarily nonresidential. Fall enrollment data show FTE enrollment of fewer than 1,000 degree-seeking students at these bachelor's degree granting institutions. Fewer than 25 percent of degree-seeking undergraduates live on campus (includes exclusively distance education institutions).

- **S4/R:** Very small four-year, primarily residential. Fall enrollment data show FTE enrollment of fewer than 1,000 degree-seeking students at these bachelor's degree granting institutions. 25-49 percent of degree-seeking undergraduates live on campus.

- **VS4/HR:** Very small four-year, highly residential. Fall enrollment data show FTE enrollment of fewer than 1,000 degree-seeking students at these

bachelor's degree granting institutions. At least half of degree-seeking
undergraduates live on campus.

- **S4/NR:** Small four-year, primarily nonresidential. Fall enrollment data show
  FTE enrollment of 1,000–2,999 degree-seeking students at these bachelor's
  degree granting institutions. Fewer than 25 percent of degree-seeking
  undergraduates live on campus (includes exclusively distance education
  institutions).

- **S4/R**: Small four-year, primarily residential. Fall enrollment data show FTE
  enrollment of 1,000–2,999 degree-seeking students at these bachelor's degree
  granting institutions. 25-49 percent of degree-seeking undergraduates live on
  campus.

- **S4/HR**: Small four-year, highly residential. Fall enrollment data show FTE
  enrollment of 1,000–2,999 degree-seeking students at these bachelor's degree
  granting institutions. At least half of degree-seeking undergraduates live on
  campus.

- **M4/NR**: Medium four-year, primarily nonresidential. Fall enrollment data
  show FTE enrollment of 3,000–9,999 degree-seeking students at these
  bachelor's degree granting institutions. Fewer than 25 percent of degree-
  seeking undergraduates live on campus (includes exclusively distance
  education institutions).

- **M4/R:** Medium four-year, primarily residential. Fall enrollment data show
  FTE enrollment of 3,000–9,999 degree-seeking students at these bachelor's
  degree granting institutions. 25-49 percent of degree-seeking undergraduates

live on campus.

- **M4/HR:** Medium four-year, highly residential. Fall enrollment data show FTE enrollment of 3,000–9,999 degree-seeking students at these bachelor's degree granting institutions. At least half of degree-seeking undergraduates live on campus.

- **L4/NR:** Large four-year, primarily nonresidential. Fall enrollment data show FTE enrollment of at least 10,000 degree-seeking students at these bachelor's degree granting institutions. Fewer than 25 percent of degree-seeking undergraduates live on campus (includes exclusively distance education institutions).

- **L4/R**: Large four-year, primarily residential. Fall enrollment data show FTE enrollment of at least 10,000 degree-seeking students at these bachelor's degree granting institutions. 25-49 percent of degree-seeking undergraduates live on campus.

- **L4/HR:** Large four-year, highly residential. Fall enrollment data show FTE enrollment of at least 10,000 degree-seeking students at these bachelor's degree granting institutions. At least half of degree-seeking undergraduates live on campus.

APPENDIX B

QUALITATIVE INTERVIEW FORM

NOTE: Complete This Form AFTER Completion of Quantitative assessment analysis.

Project: Explorations in Leadership Education: The Role of Leadership Education in Higher Education Outcomes

Logistics: Day & Date_____   Time _____am pm (circle)

Location _____ Interviewer _____

Interviewee Information: Gender_____ Age____ Research code ____

Job Title _____ Hours/week worked in profession ____

Education: Bachelor degree field _____ Year_____

Master's degree field _____ Year_____

Other education _____ Year_____

Interviewer Script: To help me gain a sense of some of the ways how you make decisions and how you used your experience/ formal leadership education, and how your experience of the problems and success of your program are due to that formal education, I would like to ask you a few questions. Please consider these questions as a starting point for open-ended conversation.

QUESTIONS

1. How would you describe your leadership style when it comes to making decisions?

2. How do you measure success for your institution? What are the indicators of success, and who determines those indicators?

3. What experiences have you had in with leadership/management education?

4. What or who has influenced your leadership style?

5. What has proven most helpful to you in understanding student graduation rates?

6. What has proven most helpful to you in understanding faculty salaries and benefits?

7. What has proven most helpful to you in understanding financial aid and scholarships?

8. What has proven most helpful to you in understanding school finances?

9. What is your single greatest accomplishment as president?

10. Is there anything else you would like to discuss about your leadership experience?

APPENDIX C INTERVIEW CONSENT FORM

TITLE: Explorations in Leadership Education: The Role of Leadership Education in Higher Education Outcomes

PROJECT DIRECTOR(S): Douglas G. McBroom

Purpose:

> I am currently a doctoral candidate in the School of Education at the University of Montana. I am requesting your participation in my dissertation research, which is being chaired by Dr. Roberta Evans, Dean of the School. My topic concerns how administration, decision making, and leadership are conducted at colleges and universities throughout the country.

Procedures:

> My request is that you agree to a brief telephone interview (10-15 minutes) during which I would inquire about your experience in these areas. Of course this would be arranged at a time convenient to you.

Risks/Discomforts:

> The risks of this interview will be minimum. I will be asking how you make decisions at you university.

Benefits:

> Your help with this study may help further the understanding of leadership and leadership training.

Confidentiality:

> Only the researcher and his faculty supervisor will have access to the files. Your identity will be kept confidential.

Compensation for Injury

> Although we do not foresee any risk in taking part in this study, the following liability statement is required in all University of Montana consent forms.

> > AIn the event that you are injured as a result of this research you should individually seek

appropriate medical treatment. If the injury is caused by the negligence of the University or any of its employees, you may be entitled to reimbursement or compensation pursuant to the Comprehensive State Insurance Plan established by the Department of Administration under the authority of M.C.A., Title2, Chapter 9. In the event of a claim for such injury, further information may be obtained from the University=s Claims representative or University Legal Counsel.@ (Reviewed by University Legal Counsel, July 6, 1993)

Voluntary Participation/Withdrawal:

 Your decision to take part in this research study is entirely voluntary, and you may withdraw from the study at any time.

Questions:

*If you have any questions about the research now or during the study contact: Douglas G. McBroom (406)431-0405

Subject's Statement of Consent:

I have read the above description of this research study. I have been informed of the risks and benefits involved, and all my questions have been answered to my satisfaction. Furthermore, I have been assured that any future questions I may have will also be answered by a member of the research team. I voluntarily agree to take part or to have my child take part in this study. I understand I will receive a copy of this consent form.

_____

Printed (Typed) Name of Subject

_____

Subject's Signature   Date

APPENDIX D

LETTER TO PRESIDENT

Douglas G. McBroom

1496 Cayuse

Helena, MT, 59602

<Addressee >

<School>

<Town, State, Zip>

Dear <Addressee>:

    I am currently a doctoral candidate in the School of Education at The University of Montana. I am requesting your participation in my dissertation research, which is being chaired by Dr. Roberta Evans, Dean of the School. My topic concerns how administration, decision making, and leadership are conducted at colleges and universities throughout the country.

    My request is that you agree to a brief telephone interview (10-15 minutes) during which I would inquire about your experience in these areas. Of course this would be arranged at a time convenient to you. It is understood that if you agree to this interview and at any time change your mind, then your interview information will not be included in the research. The identity of interviewees will be kept confidential and referenced only by a code number.

    I have taken the liberty of providing you with an informed consent form to complete and return in the prepaid self-addressed envelope provided. Upon receipt I will contact your office to make arrangements for the interview.

    Sincerely,

Douglas G. McBroom

REFRENCES

Association to Advance Collegiate Schools of Business International, (n.d.). Retrieved
April 8, 2008 from http://www.aacsb.edu/accreditation//

Ainsworth, M., & Morley, C. (1995). The value of management education: Views of
graduates on the benefits of doing a MBA. *Higher Education, 30(2),* 175-187.

American Association of Community Colleges. Washington, DC (2001). *Leadership
2020: Recruitment, preparation, and support.* Retrieved December 26, 2006 from
www.eric.ed.gov.weblib.lib.umt.edu:2048/ERICDocs/data/ericdocs2/content_stor
age_01/0000000b/80/27/c0/30.pdf

American Association of Community Colleges (2005). *Competencies for community
college leaders.* Washington, DC.

American Counsel for Education (n.d.). retrieved from http://www.acenet.edu on April
5, 2008.

Anderson, J. A. (1997). Leadership training initiatives for community college
administrators: A focused synthesis of the literature. *Community College Review,
24,* 27-54.

Baker, B. D., Orr, M. T., & Young, M. D. (2007). Academic drift, institutional
production and professional distribution of graduate degrees in educational
leadership. *Educational Administration Quarterly, 43 (3),* 279-318.

Balfour, D. L., & Marini, F. (1991). Child and adult, X and Y: Reflections on the process
of public education. *Public Administration Review, 51(6),* 478-485.

Ball, S. (2007). Leadership of academics in research. *Educational Management
Administration and Leadership, 35(4),* 449-477.

Ban, C., & Faerman, S. R. (1990). Issues with the evaluation of training. *Public Productivity and Management Review, 13(3)* 271-286.

Barling J., Weber, T., & Kelloway, E. K. (1996). Effects of transformational leadership on attitudinal and financial outcomes: A field experiment. *Journal of Applied Psychology*. *81*, 827-832.

Bass, B. M. (1985). *Leadership and performance: Beyond expectations*, New York, NY: Free Press.

Bass, B. M., & Avolio, B. J. (1990). The implications of transactional and transformational leadership for individual, team and organizational development. *Research in Organizational Change and Development, 4,* 231-272.

Blase J., & Blase J. (1999). Principal's instructional leadership and teacher's development: Teacher's perspectives. *Educational Administration Quarterly, 35(3),* 349-378.

Blalock, H.M. (1979). *Social Statistics*. (2nd ed.). New York, N.Y. McGraw Hill.

Board Foundation and Thomas B. Fordham Foundation (2003). *Better Leaders for America's schools. A manifesto.* Retrieved February 28th 2006, from http://www.Edexcellence.net/manifesto/manifesto.html.

Bornemann, A. (1961). The development of the teaching of management in the school of business. *The Journal of the Academy of Management, 4 (2),* 129-136.

Brody, D. S., Brooks, U., & Bunnell, R. (1956). Supervised experience: A technique for training lay leaders in parent education. *The Coordinator, 4(3),* 13-22.

Burke M. J., & Day, R. R. (1986). A cumulative study of training. *Journal of Applied Psychology, 71*, 232-265.

Burndrett, M. (2001). The development of school leadership preparation programmes in England and the USA. *Educational Management and Administration, 29(2),* 229-245.

Button, H. W. (1966). Doctrines of administration: A brief history. *Educational Administration Quarterly*, *2(3),* 216-224.

Callahan, R. E. (1962). *Education and the cult of efficiency*. Chicago, IL: University of Chicago Press.

Callahan, R. E. & Button, H. W. (1964). Historical change of the role of the man in the organization: 1865-1950. In D.E. Griffiths (ed.), *Behavioral Science and Educational Administration.* 3rd NSSE Yearbook (pp. 11-32). Chicago: University of Chicago Press.

Carnegie classifications (n.d.). Retrieved August 8, 2007 from http://www.carnegiefoundation.org/classifications/index.asp?key=785

Chatterji, M. (2002). Models and methods for examining standards-based reforms and accountability initiatives: Have the tools of inquiry answered pressing questions on improving schools? *Review of Educational Research, 72(3),* 345-386.

Chenoweth, T., Carr, C., & Ruhl, T. (2002). Best practice in education leadership preparation programs. Retrieved June 30th 2007, from http://www.ode.state.or.us/opportunities/grants/saelp/edleaderforum.pdf

Cicero, L., Pierro, A. Bonaiuto, M., Knippenberg, D., & Kruglanski, A. (2007). Leader group prototypically and leadership effectiveness: The moderating role of need for cognitive closure. *The Leadership Quarterly. 16 (4),* 503-516.

Choices.org, (n.d.). *ISSLC Standards.* Retrieved September 11, 2007 from

http://www.choices.org/

Cleary, R. E. (1990). What do public administration masters programs look like? Do they

do what is needed? *Public Administration Review, 50 (6),* 55-61.

Cohen, D. K. (1995). What is the system in systemic reform? *Educational Research,*

24(9), 11-17.

Cooper, B. S., & Boyd, W. L. (1987). The evolution of training for school administrators.

In J. Murphy and P. Hallinger (eds.), *Approaches to administrative training,* 3-27.

Albany: State University of New York Press.

Creswell, J., (1998) *Qualitative inquiry and research design: Choosing among five*

traditions. New York: Sage.

Denhardt, R. B. (2001). The big questions of public administration education. *Public*

Administration Review, 61(5), 526-534.

Dyckman, J. (1978). *Three crises of American planning: Planning theory in the 1980's.*

New Brunswick, NJ: Rutgers University Press.

Edfelt, R. (1988). U.S. management education in comparative perspective. *Comparative*

Education Review, 32(3), 334-354.

Elfin, M. (November 4, 1996). Cutting costs while improving educational quality is the

main aim of the new college reform movement. *U.S. News and World Report,* p.

34.

Etzioni, A. (1971). *A comparative analysis of complex organizations..* New York, NY:

The Free Press on Glencoe, Inc.

Felbinger, C. L., Holzer, M., & White, J. D. (1999). The doctorate in public administration: Some unresolved questions and recommendations. *Public Administration Review, 59(5),* 459-464.

Fiedler, F. E. (1996). Research on leadership selection and training: One view of the future. *Administrative Science Quarterly, 41(2),* 241-250.

Finletter, T. K. (1958). Factors looking to western world leadership. *Annals of the American Academy of Political and Social Science, 318,* 138-145.

FM6-22. (2006). *Army leadership competent confident, and agile.* Washington, DC: The united states Army.

Fuhrman, S. H. (1993). *Designing coherent policy.* San Francisco: Jossey-Bass.

Glasman, N., Cibulka, J., & Ashby, D. (2002). Program self-evaluation for continuous improvement. *Educational Administration Quarterly, 38(2)*, 257-288.

Gleason, J. R. (2006). Contemporary business administration curricula in today's business and marketing education: The national standards reflect a broad business contest. *Techniques, 81(7),* 22-27.

GoArmy.com (n.d.) Retrieved December7, 2007 from http//goArmy.com.

Golembjewksi, R. T. (1974). Public administration as a field: Four developmental phases. *Georgia Political Science Association Journal, 2,* 24-25.

Goodnow, F. (1900). *Politics and Administration.* New York: MacMillan. 10-11.

Gregen, D. (2006, October 30). America's best leaders. *U.S. News and World Report,* p. 35.

Gregg, R. T. (1960). Administration. In C. W. Harris (ed.), *Encyclopedia of educational research* (3rd ed., pp. 19-20). New York: Macmillan.

Gregorowicz, P., & Hegji, (1998). Economics in the MBA curriculum: Some preliminary survey results. *The Journal of Economic Education, 29(1),* 81-89.

Gillette, J. M. (1916). Training for rural leadership. *Annals of the American Academy of Political and Social Science, 67*, 87-96.

Griffiths, D. E. (1988). *Educational Administration: Reform PDQ or RIP*. Occasional Paper 8312. Tempe AZ: University Council for Educational Administration.

Griffiths, D. E., Stout, R. T., & Forsyth, P. B. (1988). *Leaders for America's schools: The report and papers of the national commission of excellence in educational administration*. Berkeley, CA: McCutchan.

Gupta, P. B., Sanders, P. M., & Smith, J. (2007) Traditional master of business administration (MBA) versus the MBA with specialization: A disconnection between what business schools offer and what employers seek. *Journal of Education for Business, 82(6),* 307-312.

Hallinger, P. & Murphy, J. (1991). Developing leaders toward tomorrow's schools. *Phi Delta Kappa, 72(7)*, 514-520.

Hanson, M. E. (2003). *Educational administration and organizational behavior*. Boston: Allyn and Bacon.

Haveman, R., & Smeeding, T. (2006). The role of higher education in social mobility. *The Future of Children, 16(2),* 125-150.

Henry, N. (1975). Paradigms of public administration. *Public Administration Review, 35(4),* 378-386.

Hersey, P. (2003). *Situational leadership: The core*. *A participant workbook*. Escondido, CA: Center for Leadership Studies, Inc.

Hess, F. M., & Kelly, A. (2005). *The accidental principal.* Hoover Institution, Stanford University.

Hoaas, D. J., & Wilcox, D. C. (1995). The academic coverage of business ethics: Does economics measure up? *American Journal of Economics and Sociology, 54 (3),* 289-303.

Hutchison, P.J. (1988). Mediated military leadership: A narrative analysis of military leadership training material. (Master's thesis, Air Force institute of technology, 1988) *Defense Technical Information Center, ADA212443*

Jacobs, T. O. (1991) Intro to Section 4. in Gal R. & Mangelsdorf, A.P. *Handbook of Military Psychology.* Chichester, UK: John Wiley and Sons.

Jennings, E. T. (1989). Accountability, program quality, outcome assessment and graduate education for public affairs. *Public Administration Review, 49(5),* 438-446.

Kaplan M., Schaefer, E., & Zinkiewcz, L. (1994). Member preferences for discussion content in anticipated group decisions: Effects of type of issue and group interactive goal. *Basic and Applied Social Psychology, 15(4),* 489-508

Katz, D. & Kahn, R. (1966). *The Social psychology of Organizations.* New York: Wiley.

Kerlinger, F. (1989) *Foundations of behavioral research: Educational and psychological inquiry.* New York: Hold, Rinehart & Winston.

Kleber, B.E. (1978). The history of military education: The U.S. army. *Military Affairs, 42(3),* 136-141.

Knapp, G. L., & Seaks, T. G. (1992). An analysis of the probability of default on federally guaranteed student loans. *The Review of Economics and Statistics, 74(3),* 56-90.

Knapp, M. S. (1997). Between systemic reforms and the mathematics and science classroom: The dynamics of innovation, implementation, and professional learning. *Review of Educational Research, 67(2),* 227-266.

Kouzes B, Z., & Posner J. M. (1988). Development and validation of the leadership practices. *Inventory Educational and Psychological Measurement*, *48, (2)*, 483-496.

Kouzes B. Z., & Posner, J. M. (1994). An extension of the leadership practiced inventory to individual contributors. *Educational and Psychological Measurement, 54(4),* 959-966.

Kurtus, R. (1999). Difference between education and training. Retrieved April 5, 2008 from http://www.school-for-champions.com/training/difference.htm.

Krippendorf, K. (2003). *Content analysis: An introduction to its methodology.* New York: Sage Publications

Leithwood, K., Louis, K. S., Anderson, S., & Wahlstrom, K. (2004). *Review of research: How leadership influences student learning.* Wallace Foundation.

Levine, A., (2005). *Educating school leaders.* New York, NY: Columbia University, Teachers College, Education Schools Project.

Liberatore, M. J., & Nydick, R. L. (1999). The teachers' forum: breaking the mold—A new approach to teaching the first MBA course in management science. *Interfaces, 29(4),* 99-116.

Lock, A. R. (1996). The future of the MBA in the UK. *Higher Education, 31(2),* 165-187.

Lyons, G. M. and Masland, J. W. (1959). The origins of the ROTC. *Military Affairs, 23(1),* 1-12.

Mahmoud, S., & Frampton, C. (1975). An evaluation of management curricula in the American association of collegiate school of business. *The Academy of Management Journal, 18(2),* 407-411.

Management and Administration Career Cluster Status Report. Retrieved September 12, 2007 from http://www.nde.state.ne.us/BMIT/pdf/Bus_Management_AdministrationReport3-14-2007.pdf.

MarkEd Resource Center. (n.d.). Retrieved September 15, 2007 from http://www.mark-ed.org/2.0/Joomla/index.php

Mason, J. C. (1992). Business schools: Striving to meet customer demand. *Management Review, 81(9),* 10-15.

McKendal, M. A., & Lindquist, S. C. (1997). True colors: The response to business schools to declining enrollments. *Journal of Business Ethics, 16(8),* 867-873.

Miller, J. W., & Boswell, L. E. (1979). Accreditation, assessment, and the credentialing of educational accomplishments. *The Journal of Higher Education*. *50(2),* 219-225.

Murphy, J. (1991). The effects of the educational reform movement on departments of educational leadership. *Educational Evaluation and Policy analysis, 13(1)*, 49-65.

Murphy, J. (1998). Preparation for the school principalship: The United States experience. *School Leadership and Management, 18(3)*, 359-372.

Murphy J. & Forsyth, P. B. (1999). *Educational Administration: A Decade of Reform*. Thousand Oaks, CA: Corwin Press.

Murray, H. (1988). Management education and the MBA: It's time for a rethink. *Managerial and Decision Economics, 9,* 71-80.

National Center for Educational Statistics (NCES). (n.d.). Retrieved August 8, 2007 from http://nces.ed.gov/

National Commission of Excellence in Education. (1983). *A Nation at risk: The imperative for educational reform*. Washington, DC: U.S. Government Printing Office.

National Commission for the Principalship (1993) *Principals for our changing schools: The knowledge and skill base*. Fairfax, VA: NCP.

National Commission on Excellence in Educational Administration (1988). *Leaders for America's schools: The report of the national commission of excellence in educational administration*. Tempe, AZ: University Council of Educational Administration.

Neiberg, M. S. (2000). *Making citizen soldiers: ROTC and the ideology of American military service.* Cambridge, MA. Harvard University Press.

Ng, K.Y., Ramaya, R., Teo, T.S. & Wong, S.F. (2006). Cultural Intelligence: It's Potential for Military Leadership Development. Paper presented at 47th Annual IMTA Conference 2006.

Peel, H. A., Wallace, C., Buckner, K. G., Wrenn, S. L., & Evans, R. (1998). Improving leadership preparation programs through a school, university and professional organization partnership. *NASSP Bulletin 82(602),* 26-34.

Pfeiffer, J., & Davis-Blake, A. (1992). Salary dispersion, location in salary distribution, and turnover among college administrators. *Industrial and Labor Relations Review, 45(4),* 753-763.

Powell, A. G. (1976). The university schools of education in the twentieth century. *Peabody Journal of Education, 54(1),* 3-26.

Raadschelders, J. C. (1999). A coherent framework for the study of public administration. *Journal of Public Administration Research and Theory, 9(2),* 281-303.

Report of the Committee on Instruction in Government (1913). *Proceedings of the American Political Science Association.* Washington, DC: APSA, p. 264.

Robinette, P.M., (1954). The study of military history. *Military Affairs, 18(1),* 27-28.

Saari, L., Johnson, T. R., McLaughlin, S. D., & Somberly, D. M. (1988). A survey of management education practices in U.S. companies. *Personnel Psychology 41(4),* 731-743.

Segev, E., Raveh, A., & Farjoun, M. (1999). Conceptual maps of the leading MBA programs in the United States: Core courses, concentration area and the ranking of the school. *Strategic Management Journal, 20(6),* 549-565.

Sergiovanni, T.J. (1991). *The Principalship: A reflective practice perspective* (2nd ed.). Boston, M.A: Allyn & Bacon.

Shively, H. (1966). The core curriculum in higher education for business. *The Journal of Higher Education, 37(2),* 88-91.

Short Courses for Leadership Training Retrieved September 21, from

    http://www.aacc.nche.edu/Content/NavigationMenu/NewsandEvents/

    Future_Leaders_Institute/FLI_II.htm

Shults, C. (2001). *The critical impact of impending retirements on community college*

    leadership. (No. 1 AACC-RB-1-5). Washington, D.C.: American Association of

    Community Colleges.

Silverthorne, C., & Wange, T. H. (2001). Situational leadership style as a predictor of

    success and productivity among Taiwanese business organizations. *The Journal of*

    Psychology, 135(4), 399-412.

Simon, H. (1947). A comment on the science of public administration. *Public*

    Administration Review, 3, 202-208.

Smith, P. (2000). *The Quiet Crisis: How Higher Education is Failing America*. New

    York: Jossey Bass.

Southern Regional Education Board (2007) *Schools can't wait: Accelerating the redesign*

    of university principals preparation programs. Atlanta GA: The leadership

    preparation institutive

Tang, T., Tang, D., and Tang, C. (2000). Factors related to university presidents' pay: An

    examination of private colleges and universities. *Higher Education*, *39(4),* 393-

    415.

Tickle, E. L., Brownlee, J., & Nialon, D. (2005). Personal epistemological beliefs and

    transformational leadership behaviors. *The Journal of Management Development,*

    24, 1-14.

Urwick, L. (1937). Organization as a technical problem. *Papers on the Science of Administration.* New York: Institute of Public Administration, 49

U.S. News and World Report (n.d.). Retrieved September 12, 2006 from http://www.usnews.com/sections/education.

Utecht, R.E., & Heier W.D. (1978). The contingency model and successful military leadership. *Academy of Management Journal,* 606-618.

Ventriss, C. (1991). Contemporary issues in American public administration education: The search for an educational focus. *Public Administration Review, 51(1),* 4-14.

Vroom, V. H., & Jago, A. G. (2007). The role of the situation in leadership. *American Psychologist, 62 (1),* 17-24.

Wallin, D. L. (2006). Short-term leadership development: meeting a need for emerging community college leaders. *Community College Journal of Research and Practice, 30,* 513-528.

Willoughby, W. F. (1927). *Principles of public administration.* Baltimore: Johns Hopkins Press.

Winiewski, M.A. (2002). *Leadership in higher education: Implications for leadership development programs.* Retrieved December 26th, 2006 from http//:www.academicleadership.org.

Yeakey, G. W. (2002) *72 Situational Leadership.* From Military Review. Retrieved January 25th, 2007 from http://www.au.af.mil/au/awc/awcgate/milreview/yeakey.htm.

Zand, D. E. (1996) . *The Leadership triad: Knowledge, trust and power.* Oxford University, UK: Press Oxford.

Zander, A. (1944). Training volunteer leaders for youth groups. *Journal of Educational Sociology, 17(4),* 406-410.

Zeleny, L. D. (1941). Experiments in leadership training. *Journal of Educational Sociology, 53(5),* 424-431.

Zhu, W., Chew, K., & Spangler, D. (2006). CEO transformational leadership and organizational outcomes: The mediating role of human-capital-enhancing human resource management. *The Leadership Quarterly, 17(3),* 316.