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NO. 3474

A STUDY OF ADMINISTRATIVE LEADERSHIP STYLES
OF THE SENIOR ADMINISTRATORS OF
PUBLIC UNIVERSITIES IN TEXAS

DISSERTATION

Presented to the Graduate Council of the
University of North Texas in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Samuel Okechukwu Nwafor, B.B.A, M.Ed.

Denton, Texas

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The study of leadership in education, business, industry, government, and other organizations has evolved over time. Early studies focused on leadership traits and behavior. Currently, researchers and theorists have concentrated on the interaction of leadership styles and situations.

The primary purpose of this study was to determine the predominant leadership style of a group of senior administrators of public universities in Texas. Additionally, the leadership styles of administrators were compared with the following personal and institutional factors: age, gender, current administrative level, years in present position, years at present institution, years in administration, highest degree earned, years of experience in teaching, number of subordinates reporting directly to the senior administrator, and size or population of present institution.

One hundred and eleven of the 185 senior administrators in the 37 public universities in Texas were selected to participate in the study. Administrators in the selected group were asked to respond to a demographic questionnaire and the Styles of Leadership Survey developed in 1968 by Hall and Williams and revised in 1986. Ninety-one percent of the administrators completed the survey instruments. Descriptive statistics including percentages, chi-square, t-test, one-way analysis of variance, and least significant difference tests were used to analyze data at .05 level of confidence.

Major findings from the analysis were the following:

1. Nearly three-fourths (74.3%) of the senior administrators preferred the 9/9 collaborative (AAA) leadership style.
2. There was no significant difference in the leadership style preference of senior administrators with regard to gender, administrative level, years at present institution, years in teaching, and number of subordinates reporting directly to the senior administrator.
3. Leadership style preference of senior administrators differed significantly with regard to age, years in present position, years in administration, highest degree earned, and size or population of institution.

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CHAPTER 1

INTRODUCTION

Higher education currently faces complex visible but uncharted problems which affect the leadership, administration, and management of colleges and universities. In a study of former college senior administrators, Carbone (1981) found that higher education has gone through many revolutions since World War II. Some of these revolutions include enrollment, research, adult education, international education, student protests, service to society, and a revolution of rising expectations on the part of those left behind in the early years.

As pointed out by Cawelti (1982), most of these pressing problems are the outgrowth of trends such as declining enrollments of traditional-age students, reductions in federal and state funding, problems with access to institutions of higher education, reduced public support, collective bargaining, and decentralization of governing boards. This rapid increase in problems has resulted in an increase in the responsibilities of senior administrators of public institutions of higher education. Cawelti emphasized that leaders are supposed to lead,

provide a sense of direction, motivate others toward attainment of goals, and build consensus among respective constituencies. Senior administrators' effectiveness depends largely on how well they gain the cooperation of respective constituencies involved in the development and progress of their institutions, such as legislature, trustees, students, faculty, staff, and various community groups.

Senior administrators often turn to personnel for assistance in carrying out their ever-increasing responsibilities. The leadership styles of senior administrators vary from situation-to-situation; however, in any situation where they rely on personnel for assistance, their leadership styles which motivate the personnel greatly influence the achievement of the group.

As asserted by Sergiovanni (1982), senior administrators' assumptions about schooling, the place of education in society, how institutions should be organized and operated, and how people should be treated are the guiding principles that give integrity and meaning to leadership. Leaders generally stand for certain ideas and principles that become the cornerstone of their leadership style and being. Therefore, senior administrators' leadership styles, which allow their subordinates to

exercise initiative, make decisions, and be generally active, are important to the progress of an institution.

Higher education, according to Cohen and March (1986), is a distinctively different type of organization from business, industry, and government. In business and industry, Dressel (1981) pointed out, purposes, goals, and policies are formulated at the top of the organizational structure. These policies are subsequently interpreted and carried out by individuals operating under relatively inflexible rules and limitations. Although some management experts, such as Mayo (1945), Drucker (1967, 1980), McGregor (1964), Maslow (1954), Herzberg (1966), Morrisey (1970, 1976), Odiorne (1979), Hersey and Blanchard (1977), Blake and Mouton (1978, 1981), Donnell and Hall (1980), Tannenbaum and Schmidt (1973), Ouchi (1981), and Koontz, O'Donnell, and Weihrich (1986), have written extensively on employee involvement in decisions and on humanitarian concerns in achieving both high moral and production efficiency, the necessity of maintaining a profit margin combined with insatiable individual expectations and union demands ensure the presence of directive management and administration.

Burns (1978), Dressel (1981), Burnham (1983), Baradat (1979), Kraemer and Newell (1979), Cummings and Wise (1981), Reagan (1972), and East, Salmore, and Herman (1978) pointed out that a democratic government theoretically draws its

directions and policies from elected representatives. Politicians enact laws and formulate policies to be interpreted, applied, and enforced by an ever-expanding bureaucracy that is nurtured by routine, red tape, and a general reluctance to abolish any budgeted agency or policy. According to Dressel (1981), politicians tend to become career oriented in governance and, therefore, endorse mainly those policies and decisions that are likely to improve their chances for reelection.

Higher education differs from business, industry, and government in several respects. As Morrissey (1970) found in his study of the application of management by objectives in higher education institutions, the outstanding difference is in the nature and measurement of outcomes. Unlike business, industry, and government, higher education outcomes are nonmeasurable. Higher education uses tangible resources to produce intangible outcomes which do not easily lend themselves to the models of measurement used in business, industry, and government.

Cohen and March (1986) concluded that higher education is like organized anarchy. Thus, none of the administrative hierarchical models of the corporate world or the political model of democratic government with its checks and balances among the executive, legislative, and judicial branches are

appropriate for the leadership, administration, and management of higher education institutions.

Leadership is an ambiguous concept that influences the administration and management of any organization. The study of the concept of leadership has, in recent years, received much attention in higher education. Among the popular recognized scholars and researchers in the study of leadership are Cohen and Roueche (1969), Lahti (1979), Kauffman (1980), Karol and Ginsbury (1980), Astin and Scherrei (1980), Atwell and Green (1981), Dressel (1981), Carbone (1981), Kamm (1982), Brown (1984), Bogue (1985), Kerr and Gade (1986), and Fisher and Tack (1988, 1990). The popularity of leadership as a topic of study is the result of its impact on administrators and managers in the field of higher education and of its important role in society.

Within an organizational context, Eddy and Inchassi (1986) asserted, leadership serves to stimulate human resources that are focused on accomplishing the goals and objectives of an organization. As pointed out by Bogard (1979), leadership serves teaching and learning in education, promotes efficiency and economy in government, and stimulates increased development of technology and competency in completing assigned tasks in business and industry.

The terms administration and administrator are still commonly used to describe leaders in academic institutions, whereas management and manager are widely used and accepted in business organizations throughout the world. Drucker (1967), Bernard (1962), Morrisey (1970, 1976), Tannenbaum and Schmidt (1973), and Koontz et al. (1986) agreed that notable management functions include planning, organizing, implementing, coordinating, and controlling.

Richman and Farmer (1974) found that management involves strategy, innovations, initiating, creative problem-solving and decision-making, and a high degree of risk-taking and entrepreneurship. They also reported that administration implies more routine decision-making and operations, and the implementation of goals, priorities, and strategies usually determined by others.

Eddy, Miller, Martin, and Stilson (1985) stated that the primary focus of administrators is on the behavior of people in charge of an organization. Administrators' main purpose is to see that specific tasks leading to goal accomplishment for an organization are efficiently and effectively planned, organized, and evaluated.

However, Richman and Farmer (1974) concluded that effective management needs the support of competent administration and administrators. If an institution is to continue functioning properly in the turbulent environment

in which most academic institutions now find themselves, management, administration, and effective leadership must step in to resolve the conflicts that increase in frequency when resources decrease.

In his study of chief student affairs administrators in private colleges and universities, Richardson (1979) found that leadership is differentiated from management or administration by the concept that to be effective, management or administration must include leadership. Davis (1967) also concluded that leadership is an essential part of management or administration.

In a study of the senior administrators of 2,400 institutions of higher education, Kerr and Gade (1986) emphasized that the fortune of higher education institutions is affected by the leadership style of senior administrators more than by any other similar-sized group of individuals within the academic community. They further indicated that to study senior administrators--what they do and how they do it--is to study higher education in general, for senior administrators are central to the development of higher education.

Theorists have attempted to explain the concept of leadership on the basis of the "great leader-great man" theory. This theory is associated with the primary view that leaders are endowed with unique and superior qualities

which set them apart from others. In a study of 14 nations covering 5 to 10 centuries, Woods (cited in Stogdill, 1974) concluded that leaders of nations or institutions make it what it is, and mold it in accordance with their abilities. According to Dowd (1936), the masses, whatever they do, are always influenced and led by individuals who are few in number but superior in leadership skills. Stogdill (1974) pointed out that the "trait" theories of leadership evolved from the great man theories and were developed as a result of attempts to identify the superior qualities that differentiate leaders from their subordinates. Thus, researchers have tried to determine whether people who are considered leaders have certain characteristics that differentiate them from their subordinates.

The earliest determinants of leadership were probably physical traits. Leaders were selected because of their superior strength. Kuntz (1991) emphasized that, regardless of strength, every leader has weaknesses. Fulmer (1978) explained that as the masses became more aware of the worth of individuals and the equality of people, the influence and power gained by leaders was based more on their mental traits. Mahoney, Jerdee, and Nash (1960), in their study of leaders and subordinates, found a tendency for leaders to have a higher level of intelligence than the average of their subordinates. Subordinates view their leaders' job as

requiring the analytical ability to perceive broad problems and complicated relationships which must be resolved.

Ghiselli (1963) also concluded that an individual's intelligence is an accurate predictor of leadership within a certain range.

Fulmer (1978) speculated that personality traits are probably the keys in determining a leader. He further revealed that the interrelationships of physical, mental, and social traits tend to fall under the broad term of personality. Although personality is a determinant of leadership, it is difficult to classify the personality types of leaders because leader personalities differ according to the nature of groups or subordinates. Finally, Fulmer contended that, although physical, mental, and personality traits are seemingly homogeneous throughout the general population, the methods of accomplishing goals and objectives in a leadership manner are peculiarly a leader's major characteristic. Other researchers have singled out behavior as the quality which best describes leaders and distinguishes them from their peers.

In the mid-1940s, researchers at Ohio State University, according to Stogdill and Coons (1957), began one of the earliest attempts to analyze leadership behavior. These researchers were concerned with identifying various leadership behaviors and analyzing the effects of those

behaviors. Two general types of leadership behavior were identified: (a) initiating structure and (b) consideration. Initiating structure refers to leaders' behavior in structuring the tasks of subordinates and establishing specific patterns of organization and communication. Consideration is a leadership behavior which indicates mutual trust, respect, and friendship. Using the Leader Behavior Description Questionnaire, Ohio researchers found that the two types of leadership behaviors were independent. That is, some leaders structure subordinate activities, but provide very little consideration, while other leaders are considerate, but provide little structure. Their study revealed that many leaders do not fit into either of these categories. Other leaders spend little time using either structure or consideration behaviors but are relatively involved with their subordinates.

The "personal-situational" theories of leadership attempt to explain the actions of leaders in terms of the interactive effects of individuals and situational factors. Stogdill (1974) pointed out that early theorists described leadership as being directly related to the personality of the leader and the conditions under which the leader operates. According to Gerth and Mills (cited in Stogdill, 1974), these early theories were expanded after World War II. They contended that an understanding of leadership

requires that attention be given to (a) the traits and motives of leaders, (b) images that others hold of leaders and their motives for following them, (c) the characteristics of the role that they play as a leader, and (d) the institutional setting in which leaders and their subordinates may be involved. Stogdill and Shartle (cited in Stogdill, 1974) proposed the study of leadership in terms of the status, interactions, perceptions, and behavior of individuals in relation to other members of an organized group. Thus, leadership is regarded as a relationship between persons rather than as a characteristic of an individual. These researchers asserted that when data for all the members of a group are combined and interrelated they provide a means for studying leadership in terms of the structural and functional dimensions of an organization.

Bennis (1961) suggested a similar theory of leadership, which includes the consideration of (a) impersonal organization and rational decision-making, (b) informal organization and interpersonal relations, (c) benevolent autocracy and its efficiency, (d) job enrichment that permits individual self-actualization, and (e) participative management that allows the integration of individuals and organizational goals.

Recently, researchers on leadership theory have emphasized the interactive functions of leadership. The

relationship between leaders and subordinates is determined by the degree of interaction initiated by the leaders and the expectations of the subordinates as to the intended objectives of the group. Thus, leadership becomes an act of initiating and maintaining the structure of interaction for the purpose of attaining group accomplishment. The initiation of both structure and consideration, which was studied and explained extensively by Fiedler (1967), has proved successful under different conditions. It has also resulted in a contingency model of leadership effectiveness which suggests that the effectiveness of a given leadership behavior is contingent upon the demands imposed by the situation. Work-oriented leaders tend to be more effective in both very easy and difficult situations. Person-oriented leaders tend to be more effective in situations that require moderate leadership demands.

Stogdill (1974) referred to the "humanistic" theories as the most popular and more-widely quoted theories of leadership. The humanistic theories attempt to explain relationships between individuals and organizations in terms of individuals' search for freedom of action as opposed to monolithic structure and control of an organization. It then becomes the function of leadership to modify an organization to provide an environment where individuals can maximize their potentials and fulfill their needs while, at

the same time, contributing to the goals and objectives of the organization. Whyte (1956) claimed that organizational demands are damaging to individuals. He stated that an individual must conform to the wills of an organization and must possess an unthinking loyalty in order to achieve success. He viewed society as being made up of unimaginative conformists, where individuality and creativity are of a lower priority than the demands of an organization.

Argyris (1957) also studied the fundamental conflict between individuals and organizations. He stated that an analysis of the basic properties of relatively mature human beings and formal organizations lead to the conclusion that there is an inherent incongruency between the self-actualizing of the two. The basic incongruency creates a situation of conflict, frustration, and failure for participants.

Blake and Mouton (1964) viewed leadership in terms of concern for people or concern for production. Their managerial grid graphically illustrates a concern for people on the vertical axis and a concern for production on the horizontal axis. A leader may be high or low on both, or may be high on one and low on the other. The leader who rates high on both axes develops subordinates who are highly

motivated and who develop relationships of trust and respect.

In his study of the relationship of leadership to the organization, Likert (1961) revealed that the leadership and other processes of an organization must insure a maximum probability that in all interactions and relationships with the organization, each member will, in light of his or her background, value, and expectations, view the experience as supportive and as one which builds and maintains a sense of personal worth and importance. Likert suggested that leadership is a relative process; thus, leaders must consider the expectations, values, and interpersonal skills of individual group members who interact with them. Leaders must behave in such a way as to prove supportive of their subordinates' efforts and sense of personal worth. A leader's primary role is to build group cohesiveness and motivation for productivity by allowing freedom of decision-making and individual self-initiative.

McGregor (1964) postulated two types of organizational leadership: theory X and theory Y. The theory X type of leadership is based on the assumption that people see little intrinsic value associated with work. They work primarily for the extrinsic rewards offered. In addition, the average person prefers to be directed, wishes to avoid responsibility, has little ambition, and seeks security.

Because of an individual's inherent dislike of work, theory X leadership is essentially directed toward coercing, controlling, and directing workers to get them to put more effort toward the achievement of organizational goals.

The theory Y type of leadership is based on the assumption that people like to work and find that it not only provides the means for satisfaction, but is satisfying within itself. The major tenets of theory Y are that an average person does not inherently dislike work; he or she will exercise self-direction and self-control in order to achieve both personal and organizational goals; the average person seeks and accepts responsibility; and the intellectual potentialities of the average human being are only partially utilized. Thus, theory Y leadership is directed toward organizing the work environment to enhance the fulfillment of individual needs while promoting the goals of the organization.

Sisk (1969) and Ouchi (1981) developed theory Z, which holds that organizations are composed of various subsystems where changes in any one area modify the functioning in another area. In addition, Ouchi (1981) revealed, theory Z concerns important matters such as productivity; the welfare of organizations and their employees; and, by extension, the competitiveness of the economy. Therefore, leadership under

theory Z involves analyzing and acting on each organizational situation as it arises.

Different types of behaviors have been attributed to leaders, but there seems to be little or no agreement among researchers as to what types of behavior are most important. The literature reveals that variance in leadership behavior is as diverse as the differences which exist among individuals. Miller (1975) pointed out that "personalistic" leadership is reflective of who a person is and why he or she thinks, acts, and believes as he or she does. This aspect of leadership behavior, according to Miller, is by nature reflective, qualitative, intuitive, experimental, intangible, judgmental, philosophical, and extremely personal. Miller concludes that the leadership style of individuals is built up over a period of years and their personal behavior is manifested in their total repertory of administrative behaviors.

Leighton (1956) also revealed that leadership behaviors are conditioned by the beliefs of the leaders. He stated that individuals act in terms of what they perceive, and what they perceive must pass not only through their eyes, ears, and other special senses to reach their consciousness, but also through the dark and iridescent waters of their beliefs.

Koontz and O'Donnell (1968) indicated that various types of leadership behavior are based on environmental factors. They suggested that the environment in which groups function has a bearing on the quality and type of leadership. This environment, according to Koontz and O'Donnell, is greatly affected by a leader's successes and failures which, in turn, result partly from the leader's level of managerial skill and partly from external factors.

According to Flippo (1970), the type of approach used by leaders to influence others to follow provides a convenient way to classify leadership behavior. Basically, the approaches to leadership revealed by Flippo are classified as either negative or positive. If the approach is grounded primarily on fear, threat, or force, it is usually characterized as negative. If it is based primarily on incentive, reward, or subordinate gain, it is described as positive. However, neither approach is considered superior to the other. In reality, leaders use a combination of both approaches.

In a study of publications on leadership which covered the years 1915 to 1951, Stogdill (1974) found that 16 researchers during this period recognized two or more types of leadership. The most prevalent types of leadership found were authoritative, persuasive, democratic, intellectual, executive, and representative. The authoritative leadership

style was also identified as task-oriented or structured. The persuasive style seemed to be a subclass of task-oriented or structured behavior. The democratic style was called person-oriented or considerate. Intellectual style leadership was difficult to recognize but was related to leadership based only on reasoning powers. It was viewed as the style that afforded leaders the most difficulty in obtaining and holding subordinates. The executive style was not considered to be a separate style but was classified as task-oriented or person-oriented. The representative pattern of leadership was synonymous with that of the spokesperson of a group and was independent of task-oriented or person-oriented leadership.

Recently, theorists have focused attention on authoritative, participative, and laissez-faire types of leadership. These types of leadership, according to Sartin and Baker (1965), generally describe the basic kinds of leadership behavior that exist within an organization.

Authoritative or autocratic leaders make extensive use of power and authority to structure the work environment and actions of their subordinates. Consequently, subordinates have relatively little input concerning decision-making. They are responsible only for obeying the instructions of their superior and do exactly what they are told. The

authoritative or autocratic leader takes full authority and assumes full responsibility (Sanford, 1973).

Participative or democratic leaders share managerial or administrative authority and decision-making responsibilities almost equally with subordinates as a group. Their estimates of subordinates' responsibilities are usually higher than those of autocrats. They attempt to develop a general sense of responsibility among subordinates for the accomplishment of group goals. Although decision-making is shared, decisions remain with the leader. Participative leaders use authority sparingly and delegate large amounts of authority and subsequent decision-making to their subordinates. However, Flippo (1970) concluded that authority and, subsequently, influence are centered in the group rather than being divided among individuals.

The Laissez-faire leaders attempt to pass responsibility for decision-making to subordinates, particularly as a group. They prefer that decisions be made by the group and prefer to join the group as a participating member. As Flippo (1970) pointed out, these leaders prefer to give little or no direction and allow subordinates a large measure of freedom, with little or no formal structuring. In a sense, these leaders relinquish power and control to their subordinates.

It is important to remember that neither positive or negative leadership nor authoritative, participative, or laissez-faire leadership can be considered as the best or the worst for all problems and situations. There are occasions when an authoritative approach may be the only alternative. However, there are few leaders who are always authoritative or always participative or laissez-faire. Current leadership studies indicate an increasing emphasis on positive stimulation by leaders and more participation by subordinates in decision making.

Statement of the Problem

The problem of this study is the lack of knowledge about the administrative leadership styles of senior administrators of public universities in Texas.

Purposes of the Study

The purposes of the study are as follows:

1. To determine the prevalent leadership style of senior administrators of public universities in Texas.
2. To compare the leadership styles of senior administrators of public universities in Texas based on the following characteristics: (a) age, (b) gender, (c) current administration level within the institution, (d) years in current position, (e) years of experience as a senior administrator, (f) years of experience in teaching,

(g) highest degree earned, (i) number of subordinates reporting directly to the senior administrator, and (j) size (enrollment) of the institution.

Hypotheses

In order to carry out the purposes of this study, the following hypothesis and subhypotheses were tested using data collected by the Styles of Leadership Survey.

The main hypothesis was: there will be no significant difference in the administrative leadership styles of senior administrators of public universities in Texas.

The 10 subhypotheses were:

1. There will be no significant difference in administrative leadership styles based on the age of the senior administrators.
2. There will be no significant difference in administrative leadership styles based on the gender of the senior administrators.
3. There will be no significant difference in administrative leadership styles of senior administrators based on their administrative level within the institution.
4. There will be no significant difference in administrative leadership styles based on the number of years in their present position as senior administrators.

5. There will be no significant difference in administrative leadership styles based on the number of years in their present institutions as a senior administrator.

6. There will be no significant difference in administrative leadership styles based on the number of years of experience as senior administrators.

7. There will be no significant difference in administrative leadership styles of senior administrators based on the number of years of experience as a teacher.

8. There will be no significant difference in administrative styles of senior administrators based on their highest degree earned.

9. There will be no significant difference in administrative leadership styles based on the number of subordinates reporting directly to the senior administrators.

10. There will be no significant difference in administrative leadership styles of senior administrators based on the enrollment of their institutions.

Background and Significance of the Study

Several years of supervisory experience and graduate study in higher education prompted this study of leadership styles. A work environment provided the opportunity for isolation of several leadership behaviors, especially the

democratic personality and notation of the value of this type of personality in certain leadership situations. Graduate study and professional meetings also provided insight into personality and leadership types.

Supervisory experience often reveals a variety of styles of leadership. Observing the patterns of leadership within an administrative and supervisory staff is interesting and, thus, motivates one to look more closely into the leadership styles possessed by individuals within management and administration.

A majority of the available studies of institutional administrators are autobiographies or biographical works, which were written by a friend or relative of an administrator. Because actual research literature on higher education administrators is scarce, Peterson (1987) advocated that new studies on leadership behaviors and styles of senior administrators of institutions of higher education be conducted. Although much of what has been written about senior administrators flows from their own pens, Carbone (1981) emphasized that the subject of administrative leadership has, in recent years, attracted many students of higher education administration.

Blake and Mouton (1964) asserted that education provides new insight and skills, introduces new possibilities, and excites new appetites for something

better than that which presently exists. In order to have a good understanding of the leadership styles of senior administrators, it is necessary to first have a good understanding of individuals, organizations, conditions, and their interrelationships.

Literature supports the need for additional studies on the leadership of senior administrators. Researchers have begun to address questions about how senior administrators acquire their skills, abilities, and other attributes; maintain their effectiveness; keep informed; update their skills; sustain their motivation; and continue to grow, both professionally and personally. Lipham (1964) called for greater attention to external forces and relationships of variables on leadership. He summarized questions concerning what researchers should concentrate on in studying leadership. According to Lipham, the focus on leadership research has moved from leaders and events to situations, behaviors, and relationships. In addition, he placed greater emphasis on the effects of, and numerous group variables that affect, leadership.

Gephart (1969) further emphasized a need for the study of leadership, and discussed the subject of problem conceptualization. He pointed out the fact that researchers cannot profitably investigate the nature of variables and relationships unless the variables are known. Gephart also

indicated a need to define variables and relationships of variables. One of the methods to accomplish this objective is to compile a list of the variables related to leadership. This compilation, in turn, should contribute to additional research into the variables that relate to leadership styles.

Filly and House (1969) pointed out that leadership is one of the most researched and least understood variables of the management process. Stogdill (1974) and Bass (1981) compiled more than 5,000 studies relating to the concept of leadership. Burns (1978) asserted that one of the most universal cravings of today is a hunger for compelling and creative leadership. Bennis (1984) called for leadership that reaches the souls of others by raising levels of consciousness, building meaning, and inspiring intent. He further defined leadership as the translation of intent into reality. To achieve this translation, a leader must exhibit vision through the capacity to create and communicate and must exhibit persistence, consistency, and focus through molding the support of multiple constituencies. Astin and Scherrei (1980), in a study of administrators of higher education institutions, identified four senior administrative leadership styles--the bureaucrat, the intellectual, the egalitarian, and the counselor. Literature on the study of leaders at various levels has

proven that the administrative leadership style used in an organization is a major determinant of that organization's productivity.

While studying the relationship between leader behavior and change processes, Chen (1967) discovered that literature is limited in this area. His study focused on what kind of leader behavior encourages change processes in the most effective fashion and whether some kinds of leader behavior are more appropriate to one type of change process than to another. However, none of the studies reviewed were specifically directed toward senior administrators of public universities in Texas. This study, therefore, fills the vacuum.

Other variables such as age, gender, current administrative level, years in present position, years in present institution, years of experience as a teacher or a senior administrator, highest degree earned, number of subordinates reporting directly to the senior administrator, and enrollment of the institution may be influencing factors in carrying out institutional administrative leadership functions. The data collected in this study provide a database which can assist institutions of higher education in identifying factors that greatly contribute to administrative effectiveness.

Specifically, this study is significant because it (a) determines whether or not there is a prevalent administrative leadership style for senior administrators of public universities in Texas; (b) determines whether or not there is a relationship between senior administrators' leadership styles and their age, gender, administrative level, present position, experience as a teacher or senior administrator, highest degree earned, and number of subordinates reporting directly to the senior administrator; (c) determines whether there is a need for courses, training, and assignment of persons for leadership roles in higher education; and (d) emphasizes the need for awareness by senior administrators as to their leadership and its functioning within the public universities of Texas.

Definition of Terms

The following definitions are relevant to this study:

Administrative functions of planning, implementation, and evaluation are performed by an institution's formally designated senior administrators, managers, or authorized leader.

Administrative leadership style is the activity of senior administrators as they carry out their administrative functions or tasks ("purpose oriented" according to the instrument) and how they perceive those being led ("people

oriented" according to the instrument) toward accomplishment of institutional goals.

Concerns for people are those human resources which comprise the organization.

Concerns for purpose are the reasons for being which characterize an organization, the objectives to be served by organized action.

Dean of student affairs is the chief student affairs administrator who is responsible for planning, organizing, leading, and controlling the activities of the total program of student development and/or student personnel services. Included are associate vice-presidents and deans of student affairs whose positions are equivalent to the vice-president for student affairs.

Dependent variables are the conditions or characteristics (the leadership styles) that appear, disappear, or change as independent variables are introduced, removed, or changed.

Group 1 are small institutions with enrollments up to 4,999.

Group 2 are medium institutions with enrollments from 5,000 to 9,999.

Group 3 are large institutions with enrollments of 10,000 or more.

Independent variables are the conditions or characteristics (public universities in Texas and the demographic variables) that are manipulated in an attempt to ascertain their relationship to observed phenomena.

Leadership is an individual's capacity for achieving organizational goals and objectives through people.

Predominant leadership style is the leadership style that received the highest frequency count from returned surveys. In this study, the term is used synonymously with prevalent leadership style.

Prevalent leadership style is the leadership style that received the highest frequency count from returned surveys. It is the style practiced most often and most consistently by senior administrators. In this study, the term is used synonymously with predominant leadership style.

Senior administrator is an administrative officer in an institution, and includes chancellors; vice-chancellors; presidents; vice presidents for academic affairs, administrative affairs, fiscal affairs, and student affairs; and deans of students affairs, where the position has not been recognized as vice president for student affairs.

Styles of leadership survey is an instrument, developed by J. Hall and M. S. Williams (1986) for Teleometrics International, Woodlands, Texas, which is based on a

two-dimensional analysis of leadership practices, essentially like that developed by Blake and Mouton.

Subordinates are administrative officers who are members of each senior administrator's staff within each public university in Texas. The various titles used to designate these officers include vice-president, executive assistant to the president, dean, and director.

Style 9/9--collaborative (AAA) reflects a maximal concern for both purpose and people.

Style 5/5--strategic (AA) reflects a moderate concern for both purpose and people.

Style 9/1--directive (A) reflects a maximal concern for purpose and a minimal concern for people.

Style 1/9--supportive (BB) reflects a minimal concern for purpose and a maximal concern for people.

Style 1/1--bureaucratic (B) reflects minimal concern for both purpose and people.

Delimitations

The scope of this study is delimited in the following ways:

1. The data were collected and analyzed with the concept drawn from the descriptive styles of Hall and Williams' Leadership Grid (1986).

2. The limitations are recognized in collecting data by mailed questionnaires and in the particular instrument used.

3. This is a correlational study; therefore, cause and effect relationships are not inferred and only associations are detected.

4. Judgments of prevalent leadership style were delimited to the responses of individual senior administrators on the Styles of Leadership Survey instrument.

Basic Assumptions

In carrying out the strategy of this study, it was assumed that:

1. The senior administrators in this study had one predominant leadership style.

2. The responses to the questionnaire represented the opinions of the selected senior administrators in the public universities in Texas.

3. The leadership styles used in business, industry, and government could be applied by the selected senior administrators in the public universities in Texas.

4. The selected senior administrators gave their utmost consideration to the questionnaire.

Organization of the Study

This study is organized into five chapters as follows: Chapter 1 presents the introduction, a statement of the problem, purposes of the study, the hypothesis, subhypotheses, background and significance of the study, definition of terms, delimitations, and basic assumptions of the study. Chapter 2 contains a presentation of the review of research and literature. The focus is on three major areas that relate to this study: defining the concept of leadership; studying the styles and/or theories of leadership, and the situations and behaviors that affect, or are affected by them; and the analysis of leadership from a futurist's viewpoint. A description of the population and sample of the study and a detailed explanation of the questionnaire, the survey instruments, research design, procedures for data collection, and the statistical treatment of data are provided in Chapter 3. The presentation of tables, statistical analysis, interpretation, and results of the data collected are included in Chapter 4. A summary of major findings, the conclusions, and recommendations for future research are presented in Chapter 5.

CHAPTER 2

SYNTHESIS OF RELATED RESEARCH AND LITERATURE

This study was conducted in an effort to contribute to the current level of knowledge and understanding of the concept of leadership. Extensive literature describes research studies on leadership in all aspects of group management.

Stogdill (1948), in his study of leadership, compiled a review of literature from 1904 to 1948. He further classified the method for identification and study of the characteristics of leaders into the following five groups: (a) observations of behavior in group situations, (b) choice of associates (voting), (c) nominations or rating by qualified observers, (d) selection (rating or testing) of persons occupying positions of leadership, and (e) analysis of biographical and case history data.

Bowers and Seashore (1966) summarized leadership concepts of various investigators from 1950 to 1964. The focus of their review centered on the identification of four dimensions of leadership: (a) support, (b) interaction facilitation, (c) goal emphasis, and (d) work facilitations.

More recently, Stogdill (1974) and Bass (1981) compiled a review of more than 5,000 studies in leadership.

Defining the Concept of Leadership

The concept of leadership has been one of the most difficult terms for researchers and theorists to define. Words meaning chief and king were the only ones found in many languages to differentiate rulers and leaders from other members of society. A notation in the Oxford English Dictionary (Little, 1933) indicated that the word leader first appeared in the English language in about 1300. However, Stogdill (1974) indicated that the word leadership did not appear until the late 1700s.

Definition of the leadership concept has been a challenging task for researchers and theorists. Burns (1978) contended that there are over 130 definitions of leadership. Studies in the field of leadership have shown that definitions tend to vary depending upon the orientation or purpose of the researcher. As pointed out by Eddy and Inchassi (1986), the vast number of variations in the definition illustrate the diversity of the literature on leadership. For instance, Hemphill (1949b) defined leadership as an act that initiates a structure-in-interaction as part of the process of solving a mutual problem. Fiedler (1967) defined leadership as the task of

directing and coordinating task-relevant group activities. Etzioni (1961) stated that leadership is power based predominantly on personal characteristics, usually normative in nature. Dubin, Homes, Mann, and Miller (1965) viewed leadership in an organization as that which involves the exercise of authority and the making of decisions.

Lassey and Fernandez (1976) comprehensively defined leadership as a role that leads toward goal achievement and involvement. It involves interaction and influence and usually results in some form of changed structure of behavior of groups and organizations. The strength of personality and ability to induce compliance or to persuade are critical variables in the effectiveness of leaders, but their relative influence depends on time and circumstance.

In his major study, Stogdill (1974) identified the following 11 families of definitions or conceptions of leadership which also illustrate the range of inquiry into the concept of leadership. Leadership is seen as (a) a focus of group processes, (b) personality and its efforts, (c) the art of inducing compliance, (d) the exercises of influence, (e) an act or behavior, (f) a form of persuasion, (g) a power relation, (h) an instrument of goal achievement, (i) an effect of interaction, (j) a differentiated role, and (k) the initiation of structure.

Cooley (1902) indicated that all social movement revolves around a leader who forms the nucleus. Later, Mumford (1906) pointed out that leadership represents the rise to power of an individual or group of individuals who exercise control over societal phenomena. Bernard (cited in Stogdill, 1974) and Redl (1948) asserted that a leader focuses on the needs of a group in a desired direction, and Knickerbrocker (1948) maintained that leadership is a function of group needs and consists of a relationship between an individual and a group.

Some researchers have contended that personality is a key variable in leadership. Bingham (cited in Stogdill, 1974) defined a leader as a person who possesses the greatest number of desirable traits of personality and character. Bernard (1926) viewed a leader as a person who possesses more than the average amount of communicative skills and psychological stimuli. Borgardus (1934) defined leadership as the development of exceptional behavior patterns to the extent that other persons respond to them.

Many writers have also viewed leadership as a means of social control. Bennis (1959) defined leadership as the process by which an agent induces a subordinate to behave in a desired manner. Allen (1958) described a leader as a person who guides and directs other people. According to Allport (1924), leadership is a direct confrontation between

leaders and subordinates, resulting in a form of personal social control.

The concept of influence has often been used in defining leadership. Tannenbaum, Waschler, and Massarik (1971) defined leadership as individual influence communicated toward the attainment of specific goals. Haiman (1951) explained that leadership is a process whereby an individual influences the behavior of others toward given ends. Katz and Kahn (1966) stated that the amount of directed influence put out by a supervisor is the essence of organizational leadership. Hollander and Julian (1968) suggested that leadership, in the broadest sense, implies the presence of a particular influence relationship between two or more persons.

Many social scientists have preferred to define leadership with regard to behaviors or actions of a leader. Carter (cited in Stogdill, 1953) commented that leadership behaviors are any behaviors an experimenter wishes to designate or any behaviors which experts in this area wish to consider as leadership behaviors. Hemphill (1949a) generally defined leadership as a behavior of an individual while he or she is involved in the directing of group activities. More recently, Fiedler (1967) defined leadership in terms of the acts in which a leader engages,

such as public relations, praise, criticism, and consideration for well-being.

Schenk (cited in Stogdill, 1974) and Copeland (1944) preferred to use the term persuasion in defining leadership. They viewed leadership as being the management of individuals by persuasion and inspiration (as opposed to the term coercion). Koontz and O'Donnell (1968) viewed leadership as the process of persuading people to cooperate in order to meet the objectives of the work group. Stogdill (1974) felt that some leaders tend to transform any leadership opportunity into a power relationship. Therefore, leadership can be explained in terms of differential power relationships among members of a group. Janda (1960) portrayed leadership as a kind of power relationship, characterized by group member A's perception that group member B has a delegated right to prescribe behavior patterns for group member A relative to the goals of the group. Member B's effort to attain the goals involves the interpersonal relationships which Bass (1960) defined as leadership.

In many definitions of leadership, the attainment of group goals is an important ingredient. Bellows (1959) viewed leadership as the arranging of activities to achieve the common goals of the group with maximum efficiency of time and effort. Knickerbrocker (1948) stated that

leadership exists when the leader of a group is perceived by the group as controlling the means for the satisfaction of their needs. Urwick (1953) explained that a leader represents the personification of the attainment of group goals, not only to those within the organization, but also to everyone outside it. Davis (1957) defined leadership as the human factor which binds a group together and motivates it toward its goals.

Theorists who have recently analyzed the earlier definitions of leadership have generally concluded that leadership is primarily a process of interaction between a leader and group members (dyad). Pigors (1935) asserted that leadership is a process of mutual stimulation which, by the successful interplay of individual differences, controls human energy in the pursuit of a common cause. Nwafor (1990) and Anderson (1940) supported the interplay of individual differences but further emphasized that a true leader is a person who can make the most of individual differences within a group. Merton (cited in Stogdill, 1974) viewed leadership as an interaction process where members of a group comply because they want to, not because they have to. Other researchers, such as Homans (1950) and Stogdill (1959), assessed leadership in a more active sense, where the leader actively stimulates the group and initiates a structure of interaction leading to the achievement of goals.

Leadership Theories

A number of administrative leadership theories and styles are found in higher education administration. These theories, according to Eddy, Miller, Martin, and Stilson (1985), include biographical theories, leadership styles, situational theories, and behavioral theories of leadership. Terry and Franklin (1982), McGregor (1964), Stogdill (1974), Ghiselli (1971), Blake and Mouton (1964, 1968, 1978, 1980, 1981), Hersey and Blanchard (1977), Fiedler (1967), and Tannenbaum and Schmidt (1973) revealed that most leadership theories rely on a leader's basic assumptions about the attitudes of others toward work and organizations. These assumptions affect a leader's attitudes and behavior and, therefore, shape the leader's style or approach to leadership.

Biographical Leadership Theories

Early studies of leadership were focused on the (great-leader) great man theory which concentrated on the characteristics of leaders. These studies were based on the belief that people learn from the examples of leaders who were born, not made. Based on biographies of leaders, readers were able to compare and invigorate their own lives from models of the past (Emerson, 1888). Leaders were able to rise above other individuals of their times in their

vision and ability to lead others (Gustavson, 1955). According to Haslett (1973), however, the great leader theory can be dysfunctional to the serious study of leaders and leadership, especially to an assumed scientific study which is designed to yield practical guidance for the recruitment and training of administrators in education. The great leader approach for the study of leadership is confounded by the vain search for a general definition and explanation of greatness. A more reasonable way to approach the matter, Haslett suggests, is to address specific questions of interest to biographical and historical data relating to persons in formal leadership positions without concern for whether or not they were great or the basis for their assumed greatness.

Controversy obviously existed regarding approaches to the study of leadership. Later researchers assumed that leaders have superior qualities that differentiate them from their subordinates. This assumption led researchers to the analysis of physical attributes, intellectual capacity, and personality characteristics of leaders as compared to their subordinates. Findings of these early studies failed to identify any group of traits or characteristics that were common among all leaders.

Bird (1940) found that only 5% of the listed traits (physical attributes, intellectual capacity, and personality

characteristics) of leaders were common to four or more studies in leadership. Stogdill (1948) and Goode (1951), in their compilation of leadership studies into the trait theory, found contradictory conclusions for some of the traits. However, in a later study, Stogdill (1948) reported that leaders excel over nonleaders or members of a group in intelligence, scholarship, dependability, exercising responsibility, activity, social participation, and socioeconomic status. He concluded that a person does not become a leader by virtue of the possession of some combination of traits, but that the pattern of personal characteristics of a leader must bear some relevant relationship to the characteristics, activities, and goals of the subordinates.

From her study of female administrators in five major Texas junior/community college districts, Branch (1979) found that personal factors that could be attributed to female administrators' characterization at a particular level by exhibiting certain traits were not evident. Jennings (1961) added that 50 years of study had failed to produce any personality trait or set of qualities that could be used to discriminate leaders from nonleaders.

Leadership Styles

Many studies are focused on leadership styles rather than the specific characteristics of a leader. Such studies attempt to determine how a particular leadership style affects or is affected by the environment or circumstance. In the late 1940s, various theories emerged in an attempt to identify situational factors that affect leadership styles.

Sikula (1976) identified these situational factors as characteristics of a leader, subordinates, task, organization, and the external environment. Leadership style was considered to be an output of all five of these input variables. Sikula described leadership style as a system that comprises many interrelated, dynamic, overlapping, and constantly-changing variables that individually cannot explain leadership ability, but when considered collectively can account for many factors comprising the leadership concept. Because factors and circumstances change frequently, the study of leadership styles must be approached by a system's methodology, incorporating the many variables in an environment.

Sergiovanni, Metzcus, and Burden (1969) identified two major qualities of leadership styles which they called optimizing and controlling. They indicated that teachers generally respond favorably to the optimizing style rather than the controlling style of leadership. Optimizing, in

their study, means encouraging need satisfaction among those being led so that they can develop to their maximum potentials.

Blake and Mouton (1964), in their grid theory of management, indicated that an administrator adopts one basic style to meet the various needs of the organization. The grid model was designed to show the extent to which an administrator expresses concern for people or concern for purpose. Using a number system of one to nine, senior administrators can be measured as chiefly autocratic or democratic. On this basis, five basic leadership styles were identified by Hall and Williams (1986) as collaborative (AAA) leadership, 9/9 (high concern for both people and purpose); strategic (AA) leadership, 5/5 (balanced concern for both people and purpose); directive (A) leadership, 9/1 (more concern for purpose in relationships); supportive (BB) leadership, 1/9 (higher concern for people than purpose); and bureaucratic (B) leadership, 1/1 (minimum concern for both people and purpose).

In the managerial grid of Blake and Mouton (1964), only the 9/9 (triple alpha) position of maximum concern for both people and production is a desirable leadership style. Flippo (1970) indicated that this philosophy is consistent with the models developed by Argyris (1957), Herzberg (1966), and McGregor (1965). These authors contended that

there should be little fundamental conflict between a well-managed organization and a well-adjusted mature man. The 9/9 oriented leader, according to Richardson (1979), views his responsibility as seeing that planning, directing, and controlling are accomplished soundly. Blake and Mouton (1964) explained that the 9/9 oriented leadership style is characterized by informal free choice, shared participation in problem-solving and decision-making, mutual trust and respect, open communication, completion of activities within a framework of goals and objectives, and responsibility for one's own actions.

Senior administrators can determine their own leadership style and at least one backup style by using various assessment instruments developed around the Managerial Grid Concept (or the Leadership Grid--developed by Jay Hall and Martha Williams, 1986). Blake and Mouton (1964, 1978) stated that once the leadership style is known, one's leadership style can be changed by learning what assumptions are held about people and behavior and acted upon when working with and through others, and what alternative assumptions provide more effective results. The model measures the degree of concern for, not how much or the amount of actual production or actual behavior toward people. The degree of concern one has for each area

determines a person's behavior or attitude toward, people or work production.

Kurtz (1991) revealed that senior administrators' own leadership styles and how their styles interact with subordinates is an area often ignored in management and/or administration. He further contends that psychology has failed to find a leadership style or personality that is effective in all situations. Therefore, it appears that different styles are appropriate for different situations.

Although each leader is unique, certain leadership or personality styles are revealed throughout the literature. Jung (1923) conceptualized various psychological personality types in a way that is related to leadership styles. Myers-Briggs (1962, 1980) revealed methods of measuring different Jungian personality preferences that are useful for managers and administrators. Keirsey and Bates (1984) explained the usefulness of the Myers-Briggs Type Indicators in describing leadership and personality styles. As they pointed out, leaders have distinct preferences in the way they perceive situations, make judgements, and reach conclusions about their perceptions. Myers-Briggs (1962) maintained that perception and judgement govern a large portion of a leader's behavior because of their influence on decisions. She further reveals that there are two preferred modes of perceiving (sensing and intuition) and two modes of

judging (thinking and feeling). Like handedness, each person is capable of using either mode of perceiving but probably has a decided preference for one. Further, both types of judgement--thinking and feeling--are needed in different management and/or administrative situations. In the Myers-Briggs Type Indicator model, energy flow from the inner to outer world or vice versa is called introversion or extroversion. According to the model, introverts need quiet time to reflect on perceptions and restore their energy. Extroverts, on the other hand, need people and activity to charge their batteries.

Keirsey and Bates (1984) determined that a combination of preferences derived from Myers-Briggs Type Indicator (1962) can be put together to produce four distinct leadership styles: (a) the stabilizer, (b) the catalyst, (c) the troubleshooter, and (d) the visionary. Keirsey and Bates emphasized that all four leadership styles are needed in various administrative tasks or functions.

Stabilizers rely heavily on well-developed policy and principles to govern decisions. They are the most trustworthy and dependable of the leadership types. Organizing is usually done in a systematic and analytical way. For stabilizers, goals are like gigantic puzzles, and they take great pride in fitting together all of the pieces. They often motivate subordinates by setting an example of

hard work and a tradition of excellence. Stabilizers, like all leaders, may have problems with leadership styles that are different from their own because of their emphasis on a step-by-step plan to accomplish the mission of an organization.

Catalysts rely heavily on intuition to govern their decisions. Their mission is to enhance the personal and professional development of themselves and their subordinates. They like group planning and consensual decision making. They dislike details and motivate through their own enthusiasm about people and ideas. Leaders of this type disagree with the stabilizers' insistence on detailed planning, the troubleshooter's directness with people, and the visionary's mission which does not benefit all who are involved.

Troubleshooters rely on problem-solving ability and adaptability. They are the most adaptable of the four types and are at their best when solving immediate problems in their organizations. Their mission is always to develop a well functioning institution, and their goals tend to be practical and immediate. They are often good negotiators and prefer to work as a team. Troubleshooters have problems with the stabilizer's step-by-step planning and the catalyst's patience with people or professional and staff development.

Visionaries can speculate a set of conditions for a perfect organization or world. They rely on their intuition and thinking ability for making decisions. They are architects of organizations and ideas and can develop a dedicated group of subordinates. Visionaries may see the stabilizer's style as slow, have less regard for the catalyst's need for consensus decision making, and appreciate the troubleshooter's ability to solve immediate daily problems.

According to Kurtz (1991), few leaders represent pure styles as described by Keirseay and Bates (1984). Kurtz (1991) emphasized that their descriptions are best viewed as preferences rather than fixed traits or leadership styles. Jung (1923) stated that the best personalities are those that can bring out the shadow or opposite side when a situation calls for it. It is also likely that leadership styles evolve over time just as personalities or organizations develop. Myers-Briggs (1980) pointed out that no one leadership style is clearly better than other types. All of the styles of leadership have their own peculiar strengths which are needed in particular administrative tasks. Kurtz (1991) concluded that senior administrators become more effective leaders if they understand their own strengths and leadership style and learn to value those who are different. Since different leadership styles often

compliment each other, institutions with a variety of personality types can make a strong team, even though they may not agree on all issues at all times.

Anderson (1959) assessed 60 studies of democratic and autocratic leadership in the classroom. He pointed out that the evidence failed to demonstrate that either pattern of behavior was consistently relative to achievement or productivity. He also found a qualified tendency for morale to be higher under democratic leadership than under autocratic leadership. He, therefore, concluded that the democratic-authoritarian construct provides an inadequate conceptualization of leadership behavior.

Kast (1970) reflected on the intensity of research into leadership styles, but concluded that there are no clear-cut decisions regarding the relative merits of autocratic, democratic, or laissez-faire styles. He further found that particular leadership styles develop as a result of established objectives, subordinates, and situations.

Beach (1967) classified leadership in terms of exploitive autocratic, benevolent autocratic, consultative, and participative. These classifications range from a purely autocratic (exploitative) to a more democratic (participative) style of leadership.

Paschall (1977) supported these classifications. He further asserted that they represented a closer attempt to

begin a description of styles that was more definitive than the traditional autocratic, democratic, and laissez-faire styles.

Dubin et al. (1965) offered a unique approach in the study of leadership styles. In their study of supervision, they reported four types of supervisory behavior. These behaviors reveal the supervisor taking on the role of (a) representing management, (b) representing employees, (c) representing both employees and management, and (d) identifying strongly with other supervisors as a social group. They found that supervisors find it difficult to please all groups and, thus, represent only the group that provides security for their own role in the organization. However, the researchers indicated that supervisors attempt to orient themselves to all of the groups at one time or another.

Paschall (1977) provided an example of the difficulty an administrator may experience in pleasing all groups in an organization. He studied lower-level officers' perceptions of the leadership styles of administrators within selected colleges and universities in Texas. He found that the democratic, pragmatic/functional, and organic leadership styles were chosen with greatest frequency for chief officers. He further observed that 12% of the subordinate lower-level officers who avoided selection of autocratic

leadership for themselves selected autocratic for their chief officers.

In his attempt at describing leadership, Davis (1957) identified positive and negative leaders. Positive leaders motivate people by increasing their satisfaction with the job. Negative leaders motivate through fear, insecurity, and decreases in job satisfaction. Davis described three classifications of leaders: autocratic, participative (democratic), and free rein (laissez-faire). Autocratic leaders centralize all decision-making within themselves. Participative (democratic) leaders decentralize their authority and allow input from lower-level administrators into the decision-making process. Free rein (laissez-faire) leaders depend upon the group to establish its own goals and work out its own problems.

There are advantages and disadvantages for each of the styles. Denhardt (1970) emphasized that open styles of organizational leadership result in greater worker involvement, as measured in terms of perceived personal fulfillment. He further measured the degree of group involvement under authoritarian and democratic leadership. Results of his study indicate that open styles undoubtedly produce greater employee job fulfillment than do authoritarian styles. Biremham (1966) and Weed, Mitchell, and Moffitt (1976) strongly supported Denhardt's findings.

From a slightly different viewpoint, Likert (1967) defined an open or democratic management system as one that approaches the leadership process on the basis of teamwork, trust, and participation in decisions. He indicated that production is more likely to improve or remain high under such systems of management.

A study by Hersey and Blanchard (1969b) supported this assumption. They cited increased production in a particular clothing industry plant when its management system was changed from an authoritarian system to one more closely resembling a democratic system.

Erving (1969) also described a democratic approach to leadership that encourages working with people in order to accomplish goals through implementing programs. Erving stressed that planning should involve those who must implement it. In addition, Erving stressed that any deviation from this warning can cause the program to fail.

Many authors have emphasized the greater effectiveness of democratic styles of leadership by reporting the negative aspects of authoritarian styles. Kelly (1951) pointed out that the more rigid a social structure is, the less honest the members are in their communication. Lippert and White (1966) reported that authoritarian leadership is not as effective in getting people to work. They also emphasized that authoritarian leadership produces a great deal more

person-to-person irritability and aggressiveness within a group. Lewin (1939) contended that people are likely to change if they are involved in decision-making processes.

Argyris (1957) surveyed the attitudes of authoritarian management personnel and their impact on employees. He related that top-level management looks negatively on employees, blames them for errors and waste, and views them as basically lazy. Management, in response to the attitudes of employees, becomes very directive in the employer/employee relationship. The direct result of this, according to Lippert and White (1966), Adams (1945), Mowrer (1939), and Robbins (1952), is that subordinates tend to respond to authoritarian leadership by (a) leaving, (b) becoming submissive and dependent, (c) releasing their pent-up feelings when the leader is away, (d) demanding increased attention from leaders, (e) fighting and competing with other persons for the leader's favor, (f) releasing some of their feelings by creating a scapegoat, and (g) increasing emphasis on the material aspect of their relationships.

Since Robbins' (1952) findings on the effects of autocratic leadership, some efforts have been made to find better ways to relate to subordinates. Mayo (1945) and Roethlisberger and Dickson (1949) indicated that poor human relations lower production. Improving employer/employee

relations, therefore, becomes an essential ingredient for increasing production. Paschall (1977) asserted that the business world has responded to this message by placing great emphasis on the improvement of human relations on the job.

Businesses and other organizations have spent millions of dollars on staff development training and good communication systems that are designed to develop better personnel relations. Smith, Bruner, and White (1956), in their study of communication systems, found that these programs did not change the attitudes of employees and, thus, were not effective in improving production.

As Rogers (1956) pointed out, however, the concern for human relations is not an absolute solution for some of the problems of authoritarian leadership. Communication, or an attempt to be more concerned about employee relations, is influential in making a person who is easily managed by the communication of others to be passive, rigid, insecure, and authoritarian.

When assessing democratic leadership, educators refer to a continuum where autocratic leadership and laissez-faire represent extremes. For instance, Tannenbaum and Schmidt (1973) formulated a leadership continuum based on decision-making prerogatives of both superiors and subordinates. The authors contended that the continuum

suggested a useful framework from which senior administrators could decide what type of leadership action is most appropriate. Finally, they suggested that senior administrators should: (a) assess their own value system, (b) weigh the degree of felt confidence in subordinates, (c) analyze personal feelings of security in the situation, and then (c) determine the general style of leadership with which they are most comfortable and under which their subordinates can operate effectively. Bartky (1956) portrayed democratic leadership as the mean between autocratic leadership and laissez-faire leadership. In the democratic form of leadership, all policies and decisions are made by group discussion and decisions which are encouraged and assisted by the leader.

Ladd (1970), however, contended that it is impossible to have a truly democratic senior administrator. He asserted that this term simply means a manner of administration that involves subordinates in policy-making and treats them justly and kindly. Haiman (1951) explained that some of the advantages of democratic leadership are seen in terms of better understanding through participation in the formulation of ideas, greater support of decisions made when the group is allowed to participate in decisions, greater utilization of human resources, creation of stronger and more self-reliant persons, better morale, and greater

opportunity to disagree without isolation. Haiman further revealed some of the limitations of democratic leadership, including the fact of inequality. This suggests that democracy in its purest form allows the least able to be as important as the most capable in decision-making; the abstraction of social policies which are not detailed because of group discussion which leads to generalities in verbal agreement; the delay in the decision-making process which is created by the democratic process of group discussion and voting; and finally the individualism that brings about nonconformity.

Situational Leadership Theories

In order to determine the quality of a leader, it is necessary to study the effects of many impacts of the leader's environment on the leader. Many variables, both internal and external to the organization, as well as many individual inputs into goal achievement, are apparent as leaders are observed in their roles.

Various theorists (Donnelly, Gibson, & Ivancevich, 1978; Fiedler, 1967; House, 1971) have attempted to identify situational factors or variables. Unlike the Blake and Mouton (1964) Managerial Grid Theory, which suggests that leaders can adopt any of the five leadership styles, recent studies emphasize leadership for the situation rather than a

particular leadership style for all situations. Situational theories of leadership concern the moderating influence of situational variables on relationships between leadership styles and end-result variables. Behavioral scientists in this area contend that the best leaders are those who are adaptive and can change their style depending on the situation, the group, and their personal values. Thus, Hellriegel and Slocum (1974) asserted, it is not a matter of which style is best, but which is the most effective style in a given situation. Sikula (1976) described leadership style as a system which comprises many interrelated, dynamic, overlapping, and constantly changing variables that individually cannot explain leadership ability, but when pictured collectively can account for many variables comprising the leadership process. He identified the leadership variables as (a) traits of the leader, (b) characteristics of the followers, (c) characteristics of the task, (d) characteristics of the organization, and (e) characteristics of the external environment. Leadership is considered to be an output of the five variables, and because variables and circumstances change frequently, Sikula emphasized, leadership must be studied as a system's methodology incorporating the variables that exist in an environment.

House (1971), in his "path-goal" theory of leader effectiveness proposed that a leader is a key individual in bringing about improved subordinate motivation, satisfaction, and performance. The key point in this theory is how the leader affects the paths between subordinate behavior and goals by (a) recognizing and stimulating subordinates' needs for reward, (b) rewarding goal achievement, (c) supporting subordinates' efforts to achieve goals, (d) helping reduce frustrating barriers in the way of achieving goals, and (e) increasing the opportunity for personal satisfaction of subordinates. Donnelly et al. (1978) described a situational leadership model by Vroom-Yetton that attempts to identify the appropriate leadership style for specific situations. The model defines leadership styles numbered from I to IV in terms of the extent to which the subordinates participate in decision-making.

In their "life-cycle" theory of leadership, Hersey and Blanchard (1969a) stressed that leaders should be able to diagonalize their leadership behaviors based on their environment. Hersey and Blanchard considered the level of maturity of a leader's followers in determining the appropriate leadership style. As the level of maturity of a leader's followers increases, appropriate leadership style, according to Hersey and Blanchard, not only requires

decreasing structure (task) while increasing consideration, but should also require decreases in socioemotional support (relationships). Hershey and Blanchard developed a LEAD-Self survey instrument to measure leadership style, range, adaptability, and effectiveness. The effectiveness dimension of the instrument parallels Reddin's (1967) 3-D model of leadership. Although Sergiovanni (1979) agreed with Hersey and Blanchard and Reddin's concepts of leadership style, he contended that maturity is not the only or most important consideration. He, therefore, listed other areas of consideration for leadership style matching such as role expectations of followers, peers, superordinates; personality characteristics (other than maturity) of leaders and followers; time constraints for achieving objectives; political considerations; and interpersonal tension with a group.

In his study of Sisk's (1969) theory Z leadership model, Luckie (1963) emphasized the fact that organizational effectiveness is dependent upon recognition and adaptation to many variables and interdependent situational factors. He listed six interaction and situational variables as factors that determine the appropriateness of any given organizational structure or process: (a) size of organization, (b) degree of interaction, (c) personality of members, (d) congruence of goals, (e) level of decision

making, and (f) the state of the system. Sisk (1969) revealed that, as the size of an organization increases, organizational structure becomes more formal and complex, leading to an authoritarian structure. He believed that participative processes and a less formal structure are appropriate when member and organizational goals are congruent. He revealed that participative processes and informal structure are effective when decision-making functions are retained within a workgroup. When an organization's performance in achieving goals is poor, however, authoritative processes of motivation and structure may be necessary. Sisk concluded that, as the need for interaction increases in order to accomplish a prescribed task, the organizational structure should become more participative and less formal.

Fiedler (1967), in his study of relationship between organizational performance and styles of leadership, identified three effective situational variables which have eight possible combinations. These variables are:

- (a) leader-member relations, which refer to the degree to which group members like and trust a leader;
- (b) task-structure, which refers to the degree to which the task is spelled out step-by-step or is left nebulous and undefined; and
- (c) power-structure, which refers to a leader's ability to hire, fire, dismiss, promote, and demote

members. This is the formal authority and support which leaders receive from an organization in order to carry out their duties and responsibilities. McGregor (1960) pointed out that research findings to date suggest it is more fruitful to consider leadership as a relationship between a leader and a situation than as a universal pattern of characteristics possessed by certain people. He further asserted that the differences in requirements for successful leadership in different situations are more revealing than are the similarities.

Behavioral Leadership Theories

The behavioral approach to the study of leadership focuses on what leaders do and their leadership behavior. Terry and Franklin (1982) contended that widespread inconsistencies in other studies of leadership effectiveness have caused research to be focused on the behavior patterns or styles of leaders with respect to their interactions with group members.

McGregor (1964) and other researchers have developed theories of leadership that are based on the premise that behavior patterns make up leadership styles. Terms such as autocratic, democratic, laissez-faire, employee-centered, production-centered, and task-centered have been used to describe the general approach used by leaders. Lewin,

White, and Lippett (1939) and White and Lippett (1967), in their studies of small children to determine the effect of three types of leadership styles on their performance, compiled a record of each of the four groups' behaviors. Results indicated a definite pattern of leadership styles involving interaction and were labeled autocratic, democratic, and laissez-faire.

Autocratic leaders rule by commands which are generally obeyed in order to avoid punishment. This leadership style, according to Boles and Davenport (1975), is associated with the bureaucratic organizational structure. Authoritarian or autocratic leaders centralize power and decision-making in themselves, initiate decisions, give orders without consulting subordinates, and structure the work situation for employees. Employees of an autocratic leader do exactly what they are told. Autocratic leaders are task-oriented and tend to give criticism when productivity slows down. Autocratic leaders, Davis (1967) contended, take full authority and assume full responsibility. Autocratic leaders provide strong motivation and permits quick decision making because one person decides for a group. The main disadvantage of authoritarian leadership, according to Cunningham and Gephart (1973), is that people do not like it; however, it does have its place in the design of management or administration.

Democratic leaders act in direct contrast to autocratic leaders. As Davis (1967) reveals, democratic leaders decentralize power and encourage their subordinates to become cooperative in using their own initiative for handling the details of their jobs. Democratic leaders assume that subordinates want to do their best, and, thus, are supportive of the group's work rather than acting as a commander. Several studies of leadership styles and behaviors have revealed that the democratic leadership style is favored by some managers and administrators. Democratic leadership is seen in participative type organizations and is referred to as participate style leadership because leaders participate with their subordinates concerning decisions that affect them; thus, group members actively participate in the decision-making process.

The opposite dimension of the authoritarian leadership style is the laissez-faire or free-rein style. Evans (1969) pointed out that laissez-faire leaders adopt a hands-off attitude, help only when asked, and allow the group total freedom. In this type of organization, an individual is independent of the group and the leader. Evans recommended this leadership style when a group is composed of individuals who are competent to perform independently or when previous experience has shown that the group functions more effectively when authority is applied sparingly.

Hellriegel and Slocum (1974) found that the quantity of work was greater in autocratic groups, but the quality of work was superior in democratic groups. When the autocratic leaders left the production area, the members almost completely stopped working (a sign of job dissatisfaction), while the performance of the democratic groups decreased only slightly when their leaders were away. They found that the laissez-faire approach (complete permissiveness and indifference) was generally not effective in stimulating performance. Groups with this style leaders did not produce either higher quality or more productivity than the other two approaches. In fact, less work was done under laissez-faire leadership, and the work was of poorer quality than in either the autocratic or democratic groups.

When deciding which of the three leadership styles to use, Evans (1969) noted, it is important to realize that no administrator uses any of them at all times. According to Miller (1975), the environment in which an organization operates usually defines the leadership style that is appropriate.

Various studies of leadership style have indicated that the democratic leadership style is best in most situations. Lippett and White (1966) concluded from their study that 19 out of 20 administrators preferred a democratic leader, and that more administrators were dissatisfied in autocratic

than in democratic. They also found that in democratic groups, there was a greater "we" feeling, more frequent mutual praise, and more readiness to share group property than in other styles of leadership. Their study indicated that the poorest situation in terms of productivity and member satisfaction was the laissez-faire pattern of leadership. As concluded by Lippett and White, even though less work is accomplished in a democratic environment than in an autocratic environment, greater originality, interest, and cooperation give the democratic leadership style the best overall performance. Uris (1953) emphasized that the three approaches are not mutually exclusive, and that administrators do not have to choose between them, or use all three. As he explained, a superintendent who directs a program coordinator to write reports, consults with department heads about program effectiveness, and suggests that instructors or trainers find better methods to improve interaction and instruction, has, in reality, used all three approaches.

Rosenbaum and Rosenbaum (1971) found that different situations demand certain leadership styles. They observed that a group subjected to high stress manipulation performed best under an authoritarian style of leadership, whereas a group with reduced competitiveness performed best under democratic leadership.

Fodor (1976) focused his study on the question of what styles of leadership administrators adopt in response to a situation of group stress. Using simulated models for providing group stress, he found that administrators subjected to group stress displayed a heightened tendency toward authoritarian leadership.

Miller (1975) indicated that democratic leadership is successful with regard to humanistically working people. He contended that authoritarian attitudes discourage individual initiative, corporate group effort, political success, and any effort for self-fulfillment in one's employment. Finally, he stressed that laissez-faire leadership styles are good only for ineffective groups. Other studies have also expanded the concept of associating particular leader behavior to leadership styles. Miller (1977) listed seven personal leadership models: (a) paternalistic authoritarian, (b) intuitive rationalistic, (c) charismatic, (d) managerial, (e) pragmatic functional, (f) political legalistic, and (g) personalistic (intuitive) humanistic. Miller added a new concept, or styles designed as organismic (the whole individual or organization), gestaltist (the field theory approach), creative (innovative, new ideas, not status quo), and scientific (one who uses a set process of decision making).

Reddins (1967) introduced yet another concept of leadership style in his 3-D styles. He emphasized that whether a style is effective or ineffective depends upon the situation. He, therefore, suggested the following eight styles: bureaucrat, developer, benevolent autocrat, and executive (effective); and deserter, missionary, autocrat, and compromiser (ineffective).

Some researchers and theorists (Argyris, 1957; Fiedler, 1974; House, 1971; Vroom & Mann, 1960; Vroom & Yetton, 1973) developed theories of leadership that are based on the premise that behavior patterns make up leadership styles. Terms such as autocratic, democratic, laissez-faire, employee-centered, production-centered, and task-centered are used to describe the general approach used by leaders. It is evident from research findings that leadership is a product of many forces that interact simultaneously. Eddy et al. (1985) emphasized that every administrator or manager must achieve some degree of integration of these varying and complex forces; otherwise, there is a void which prevents the administrator from performing the administrative job effectively. Miller (1981) pointed out that the development of integrated models of leadership has resulted in a great deal of understanding. He further stressed that leadership models take into consideration the complex forces, as well as make basic assumptions that the important point for a

leader is to be able to pick and choose an appropriate administrative leadership style that is effective in a particular setting. Miller's rationale for this is that no one in the field of education operates on one of the extremes of the autocratic, democratic, or laissez-faire styles.

As summarized by McCarty and Ramsey (1971), most research by students of leadership is focused on two contrasting styles: one labeled as directive or task-oriented and the other as democratic or group-oriented with a high concentration for the need of the individual. Experiments comparing the performance of the two types of leaders have indicated that each is more successful in some situations than in others. According to McCarty and Ramsey, no researcher or theorist has been able to show conclusively that one kind of leader is always superior or more effective.

McMurry (1958) added the concept of the benevolent autocratic. This leader listens carefully to the group, gives the impression of being democratic, but always makes his own personal decisions.

In their study of social behavior and the administrative process, Getzels and Guba (1957), found that the behavioral approach to the study of leadership served as the basis for much of the work at the Midwest Administrative

Center at the University of Chicago. This center identified three distinctive behavior styles of leaders: normative (nomothetic), personal (idiographic), and transactional. The normative (nomothetic) leader places emphasis on normative dimensions of behavior and, accordingly on the requirements of the institution, the role, and the expectation. The personal (idiographic) leader places emphasis on personal dimensions of behavior and, accordingly, on the requirements of the individual, the personality, and the need disposition. The transactional style leader calls attention to the need for moving toward the normative style under one set of circumstances and toward the personal style under another set of circumstances.

Hemphill's (1950) study contributed to the development of the Leadership Behavior Descriptive Questionnaire. This questionnaire, which has been widely used in leadership studies, was designed to identify the following components of leadership: (a) representation--leader speaks and acts as representative; (b) demands reconciliation--leader reconciles conflicting demands and reduces disorder in the system; (c) tolerance of uncertainty--leader is able to tolerate uncertainty and postponement without anxiety or being upset; (d) persuasiveness--leader uses persuasion and arguments effectively and exhibits strong convictions;

(e) initiation of structure--leader clearly defines his or her role and lets subordinates know what is expected of them; (f) tolerance of freedom--leader allows subordinates scope for initiative, decision, and action; (g) role assumption--leader actively exercises the leadership role rather than surrendering leadership to others; (h) consideration--leader applies pressure for production output; (i) predictive accuracy--leader exhibits foresight and ability to predict outcomes accurately; (j) integration--leader maintains a closely-knit organization and resolves inter-member conflicts; and (k) superior orientation--leader maintains cordial relations with superiors, has influence with them, and strives for higher status.

Stogdill, Goode, and Day (1963) argued that although this instrument is a good identifier of leadership, what is really needed is a good evaluative instrument; that is, an instrument is needed that can measure leadership when it initiates changes in goals, objectives, structure, procedures, inputs, processes, or outputs of a social system. Stogdill et al. concluded that there is a need to define leadership behavior in terms of the behavior of an individual that initiates a new structure in interaction within a social system.

Korman (1966) found insignificant evidence that leadership behavior and/or attitudinal variations, as defined by scores on the Leadership Behavior Descriptive Questionnaire, are predictive of later effectiveness and/or satisfaction criteria.

Miller (1965) described the responsibilities of senior administrators in four definitions of leadership behavior: (a) making decisions and taking action with regard to goals and purposes in the policy-making and probing-interpreting realm--that is, the creative and initiative decision; (b) decisions and actions with regard to operations, such as intermediary and authoritarian decisions and the passing along of orders and commands; (c) decisions and actions with regard to adjustment within the system, of the system, to the community or context; and (d) appellate in that they arise most frequently through the complaints of subordinates.

Brown (1967) identified systems and persons' orientation as leader behaviors. He further outlined two dimensions: (a) behaviors that center around the needs, goals, and performances of people and (b) behaviors that center around the needs, goals, and performances of organizations.

Havighurst (1972) indicated that outstanding knowledge and performance in instruction, curriculum, and evaluation

are important behaviors to investigate in attempting to elect leadership. He suggested that leadership selection does not rest in administrative or managerial ability alone. Havighurst also stated that effective educational leaders cannot fully rely on their hierarchical status nor their management skills. Effective educational leaders need to develop a leadership style that is based on their recognized knowledge and performance in those areas in which they propose to lead.

The Ohio State studies [Fleishman (cited in Stogdill, 1974)], the Managerial Grid by Blake and Mouton (1964), and Likert's four systems of leadership (Likert, 1961) are among the outstanding studies classified as behavioral that are significant in the field. These studies emphasize that a person's leadership style falls on a continuum between extreme positions.

A New Concept of Leadership Studies

According to Morris (1985), leaders' anticipation of the future has become the new focus for studies of leadership styles which attract numerous advocates. As contended by Wenrich (1976), leaders must live ahead of others. This involves the development of new behavioral strategies, mechanisms, and programs. This idea is also supported by Avery (1980), who suggests that new leadership

skills in the future must include a tolerance for multiple interpretations and the ability to explore and create alternatives. Based on the conclusions of Morris (1985), there is reason to believe that a new social order will emerge from the prevailing value system. Individuals will, thus, need strategies that reflect the 1990s and beyond for successful living.

Beliefs in the New Concept of Leadership

A fundamental belief for leaders which requires the necessity of developing a future consciousness is the idea that a connectedness with the future is possible and is essential for human survival (Morris, 1985). Leaders who develop rational thinking and a future consciousness will, according to Ellis (1980), be adequately equipped to deal with the stress that accompanies such social transformation in the future.

Another of Morris' (1985) beliefs that emphasizes the concept of change is that rapid socio-politico-economic change will continue and that stability will be attained with change. Scientific and technological advancement is more rapid today than at any previous time in the history of the world (Platt, 1974). These developments have contributed to a lack of permanency among social structures and individuals and have resulted in a prevailing sense of

instability. The role of a leader is, in part, to introduce others to this perception and assist members of the organization to develop constructive and responsible attitudes toward change. In dealing with everyday concerns, leaders should expect the unexpected (Morris, 1985). This belief suggests that daily and even long-range plans can vary and change significantly from one moment to another, often causing such plans to be altered on a short notice. Leaders' programs, according to Morris, are drastically affected by policy makers, new information, and financial matters. The rescheduling of plans, programs, activities, and the reassessing of individual motives will be common tasks for leaders in the future. Therefore, learning to function effectively in the face of unexpected change will aid leaders in adjusting quickly to new contingencies.

Finally, Morris (1985) indicated that individual beliefs in being and becoming are the cornerstone of leadership. He further pointed out that inner directed, spontaneous, pragmatic, self-accepting, integrated, rational, and intimate are traits which describe leaders. Such traits enable leaders to function in the here and now, with a personal need to be real, genuine, empathetic, and understanding toward others. Eddy and Inchassi (1986) advocated that leaders in higher education must be trained for the future--thinking of tomorrow--via anticipating

problems, having alternatives in mind, and creating programs that assist in the solutions, choices, and understanding of the advancing educational system and its influence on human life. Future leaders should also be trained to make leadership more effective in reaching organizational goals and objectives.

According to Hurley (1991), the 1980s was a decade of unprecedented concern for colleges and universities. He further predicted that there will be a profound change in higher education during the 1990s and beyond. Universities must have the resources to build on their innovative spirits and resources as well as sustain their traditional excellence in the classroom. Campuses today are educating students who will inherit the "global village" of the next century and become heirs to a new knowledge-based pluralistic world, Hurley predicted. If senior administrators are to assure today's students of a superior educational experience, and graduates with a degree that continues to gain in both reputation and value, they must, according to Hurley, work to assure that all of their future objectives are realized. Hurley concluded that it is the task of senior administrators (leaders) to prepare students for tomorrow so that they can harness the power for new technologies, guide the long-term resurgence of the economy,

and contribute significantly to the nation's overall well-being.

Leadership in Education

A review of the literature reveals that leadership training programs have operated successfully in business, government, and the military. Presently, there is an abundance of research on educational leadership. Kamm (1982) revealed that some campuses have long established academic departments of educational leadership. Fishman (1963) contended that senior administrators should lead their institutions. They must create for the institution, clear-cut and measurable objectives based on advice from all elements of the community. Leaders must be allowed to proceed toward those goals or objectives without being crippled by bureaucratic machinery that saps their strength, energy, and initiative. Leaders must be allowed to take risks, embrace errors, and use their creativity to its limit. They should also encourage faculty and students to use theirs, realizing that they have the roles of leaders, managers, administrators, energizers, envoys, and intellectuals.

Fishman (1963) noted that the administration of higher education, at its best, is the exercise of leadership toward rigorous, conceptually-integrated, and socially-challenging

intellectual goals. It requires an allegiance to more than the usual trinity of statements and honesty which translates into quality, standards, and democracy in the academic community. It requires a university-wide perspective and, even more, a philosophy which relates intellect to society in a particular way. Ultimately, according to Fishman, it requires not a budgetary goal or operational efficiency goal, but a socio-educational philosophy and the capacity to dedicate ones' self toward the realization of that philosophy.

Bowen (1972) asserted that leaders in the academic community should possess the ability to inspire trust; sound judgement; the ability to communicate and to listen and heed; a sense of direction; plans and aspirations which excite the interest and the dedication of faculty, students, trustees, friends, donors, legislators, and other constituencies; a willingness to provide conscientious hard work; and personal qualities that characterize educated and cultivated persons.

Dodds (1962) emphasized that the senior administrator's position should maintain its traditional character of educational leadership. He concluded that senior administrators' success in building academic personnel is a prime measure of the quality of their leadership. Stoke (1959), in the preface of his book, pointed out that the

position of senior administrator is so unique and different from all other academic positions, that a full appreciation of its distinction requires personal initiation. The position of the senior administrator, according to Stoke, cannot be understood through the techniques of research, statistical analysis, and case studies. He noted that senior administrators are all alike in that the nature of their office is determined by the functions they perform and not by the size and diversity of their institutions. He further stated that the factor of educational distinction has declined in recent years, while factors of personality, management style and skills, and successful experience in business and administration have increased in importance. This fact reflects, according to Stoke, the gradual transformation of the senior administrator from intellectual leader into a manager who is skilled in administration, a broker of personal and public relations.

Hurley (1991) and Stoke (1959) strongly recommended that senior administrators should delegate as much responsibility as possible and then respect their delegations. They pointed out that senior administrators' most indispensable instruments are information and the giving of information. Finally, Stoke revealed that the most important qualification senior administrators can bring to their job is a philosophy of education; that is, why the

institutions they preside over exist, for whom they are trying to provide education, and what kind of education they are trying to provide. Senior administrators, according to Stoke, find that such a philosophy has two indispensable uses: first, it gives the enterprise a sense of direction, and second, it serves the senior administration every day as a guide for administrative decisions.

Maccoby (1979) contended that the public presently lacks a clear understanding about what is best and what it takes to bring out the best in people. This confusion results from a lack of fit between old styles of leadership and changes in technology, work, and national character. There are two interrelated aspects of a leader's role. According to Maccoby, one has to do with the function of leadership, which may range from inspiring to disciplining, from mediating to commanding. The second has to do with presenting an image, a model that others want to emulate or imitate. Both the ideal character and the functions of leadership have changed historically because of economic and social transformations. As revealed by Maccoby, there is a crisis of authority because neither the functions of leadership nor the image of the leader fit the needs of the large organizations in an age of rights, limits, and new values.

One of the problems of leadership in large organizations today, in an age of limits, is how to create organizational goals that bring out the best in workers who are increasingly skeptical and self-affirmative. The change in social character appears to be the result of two broad currents. One is the transformation of traditional rural to modern urban values, based on revolutionary changes in technology, increased education, and the disappearance of a sense of independence rooted in self-employment. The other is the decline of patriarchal authority based on new demands for human rights. These new values are becoming dominant and, thus, determine attitudes in the work place. Unless leaders understand them, Maccoby (1979) stressed, they may bring out the worst rather than the best in the emerging social character. Maccoby also noted that more is demanded from leadership now than in the age of paternalism or times of unlimited economic growth. The combination of increased competition, the need to innovate and cut costs, new technology and materials, changing government regulations, and the changing attitudes of workers, according to Maccoby, demand a higher level of leadership in organizations than ever before. The primary tasks of leaders are to understand both motives and resistance to change, and to establish operating principles that build trust, facilitate cooperation, and explain the significance of the

individual's role in the common purpose. According to Maccoby, what brings out the worst in employees, including middle and lower levels of management, is a sense of powerlessness due to the size of the workplace and the anonymous authority that treats everyone like a part in a large machine.

Alluto and Acito (1974), Borland (1976), Cleary (1978), Dickson (1981), Drucker (1977), Fenn and Yankelovich (1972), Santos (1990), Maduagwu (1986), Wandia (1980), Okafor (1971), Maccoby (1979), and Nwaeke (1983) agreed that insecurity, suspicion, rumor, and a sense of injustice grow in organizations where employees do not understand the reasons for decisions and do not participate in how work is organized and evaluated. Leadership, according to Maccoby (1979), brings out the best in the emerging social character only by welcoming the positive aspects of character and by establishing a moral code that appeals to the common good and meets needs for participation, personal development, and equity.

Maccoby (1979) stressed the need for doing a better job of preparing leaders for the future. Whether or not college and university senior administrators succeed in bringing out the best in faculty, trustees, and students, higher education should provide a better curriculum for leadership. Education for leaders, according to Maccoby, should include

understanding of character (the philosophical, psychoanalytic and historical viewpoints), the philosophy of ethics, the sociology of different classes, the anthropology of organizations, political theory, and the study of ideology.

As revealed by Kamm (1982), there is comparatively little education of this kind available, especially concerning the understanding of character in relation to organizations. Instead, aspiring leaders are generally offered high-level technical training in economics, finance, law or engineering and bags of tricks and techniques to manipulate and control people, which generally bring out the worst in them. Kamm further contended that in order to develop a more productive democratic society, leaders are needed in business, government, and higher education who are able to bring out the best in a changing national character. There is a shortage of both the kind of leaders advocated and the education required to lead the organization of the future. Adequate leadership will have to emerge through on-the-job, social research development. Researchers contend that leaders can develop higher levels of trust and teamwork if they participate with those they lead in studying organizational problems, experimenting with solutions, and evaluating alternatives according to both economic and human or moral criteria.

Leadership in Politics and Government

In any free nation, leadership, or the lack of it, in politics and government is a popular topic of conversation. Leaders in high offices are especially subject to criticism, which sometimes results in their termination. Stall (1979) expressed concern about the abuse of a nation's highest leadership. He stated that nations use up their leadership at a rate that cannot last. According to Stall, citizens in all fields allow a leader to be good for only a few years, and then he or she is voted out of office or terminated. Kamm (1982) revealed that the five principal responsibilities of any nation's president are (a) leadership, (b) leadership, (c) leadership, (d) leadership, and (e) leadership. Murphy (1980a) pointed out that the most important leadership qualities the president of a nation should possess are honesty, integrity, decency, common sense, courage, and ability, plus an abiding faith in Almighty God. In addition, Murphy listed vision, humility, understanding, tenacity, patience, strength, dependability, confidence, statesmanship, pragmatism, objectivity, charisma and patriotism as other highly regarded attributes for a nation's chief executive. He also believed that a president needs the ability to select and surround himself or herself with competent advisers.

Burns (1978) studied leadership in politics and government and in the world, but his study also has great application for institutions, and other areas of human endeavor. Leadership today rarely rises to the full need of it. Burns described leadership as no mere game among elitists and no mere populist response, but as a structure of action that engages persons, to varying degrees, throughout the levels and among the interstices of society. As noted by Burns, the process of leadership must be seen as part of the dynamics of conflict and power; that leadership means nothing, if not linked to collective purpose; that the effectiveness of leaders must be judged by actual social change measured by intent and by the satisfaction of human needs and expectations; that political leadership depends upon a long chain of biological and social processes, of interaction with structures of political opportunity and closures, of interplay between the calls of moral principles and the recognized necessities of power; that in placing these concepts of political leadership centrally into a theory of historical causation, the possibilities of human volition and of common standards of justice in the conduct of people's affairs are reaffirmed.

Burns (1978) identified two basic types of leadership, the transactional and the transforming. He noted that the relationship of most leaders and followers are

transactional; that is, leaders approach followers with an eye to exchanging one thing for another, such as jobs for votes, or subsidies for campaign contributions. Such transactions, according to Burns, comprise the bulk of the relationships among political leaders and followers, especially in groups, legislatures, and parties. Burns further noted that transforming leadership, while more complex, is more potent. The transforming leader recognizes and exploits an existing need or demand of a potential follower. But, beyond that, the transforming leader looks for potential motives in followers, seeks to satisfy higher needs, and engages the full person of the follower. The result of transforming leadership is a relationship of mutual stimulation and evaluation that converts subordinates into leaders and may convert leaders into moral agents or, in Burns' terms, "moral leadership." Moral leadership is not mere preaching or an insistence on political conformity. Moral leadership emerges from, and always returns to, the fundamental wants and needs, aspirations, and values of followers. Burns contended that leaders and those led have relationships, not only of power but of first, mutual needs, aspirations, and values; second, that in responding to leaders, followers have adequate knowledge of alternative leaders and programs and the capacity to choose among those alternatives; and third, that leaders take responsibility

for their commitment. If they promise certain kinds of economic, social, and political change, they assume leadership in bringing about the change. Burns further concluded that the ultimate test of moral leadership is its capacity to transcend the claims or multiplicity of everyday wants, needs, and expectations, to respond to the higher levels of moral development, and to relate leadership behavior, its roles, choices, style, and commitment to a set of reasoned, relatively explicit, conscious values.

Leadership in Business and Industry

Boles (1971) reviewed leadership generally and in relation to areas of human endeavor, such as business and industry. He called leadership the interaction-of-people process. He observed that leadership in business and industry is a series of actions including, but not limited to, actions of initiation taken by a leader in helping a group to move toward goals that its members find acceptable. He noted also that leaders function when they possess influence that can reduce the uncertainties of others. Fischer (1967) pointed out that the essential ingredients of leadership in business and industry include high intelligence, high energy, skills in communication, upward drive, respect for constituted authority, bringing order out of chaos, reliability in emergencies, and a workable personality.

Wareham (1991) revealed that effective communication is an overall element to successful leadership in business and industry. Executives rise and fall according to their communication skills. Great leaders, Wareham stated, must master four fundamental communication skills: listening, discussing, writing, and advocating. He included five key working habits: industry, perseverance, self-reliance, orderliness, and job stability. He also stressed that in order to get along with superiors, peers, subordinates, and clients, a leader must possess and develop four crucial human qualities. These include empathy (the capacity to sense and share another's feelings), loyalty (being able to put the interest of others before personal interests), social dominance (the capacity to impose one's viewpoints on others so that they willingly accept them), and tact (the faculty of saying and doing the right thing at the right time).

Kamm (1982) revealed that many executives in business and industry believe that effective leadership has to be produced by the knowledgeable, informed, concerned few at the top, and imposed by management on the mass below. He further pointed out that executives feel that management explains the programs it decides on so that the led can work with understanding. The management also explains its goals, objectives, and purposes (policies and principles) to the

employees and the community, so that it is as well understood and accepted as possible. However, management cannot relinquish control or abdicate.

Although some leaders in business and industry continue to think and operate in this manner, there has been considerable change from an autocratic leadership style of management to a participative style which involves employees to various degrees in the management of an enterprise. Despite an apparent increase in concern for people, some executives in business and industry continue to help people to become efficient in order to increase production (which relates to "the productive utilization of people"). According to Kamm (1982), it is possible to further the goals of an organization and to maximize production of an environment which foster the welfare, growth, and development of those involved; which helps each person to achieve a sense of worth and dignity; which helps each to be and to become the best each is capable of being and becoming; and, which helps each in his or her own right, to be a leader.

As Norris (1980) pointed out, there are many technologies that are interesting and of value but that are not vital to significant improvement in individual living. More technology is urgently needed that reaches individuals, that enriches their lives, and that helps them take more

control over their destinies. Equally needed are technologies which increase participation in the resolution of value issues, especially those relevant to community living. Norris further contended that there are too many disadvantaged and handicapped people who are being denied the right to enter the mainstream. There are also too many people in the mainstream who are distressed and troubled. There are millions of people who are groping for a more meaningful life. All of these facts suggest a need for increased concern on the part of leaders in business and industry regarding the welfare of people.

Blake and Mouton (1964) described the need for a blend of two approaches to leadership development (the "scientific management" school and the "human relations" school). They added that the ultimate purpose of studies of managerial style is to aid in the training and development of those who would become better leaders. Whitehead (1936) pointed out that the human race has the problem of combining the stability of routine with adaptations to fast and continuous change. This problem centers itself somewhere in the activities of business and industry. The problem of satisfactory living for individuals is very largely the problem of providing a satisfactory society and fitting individuals to live in it. Whitehead also observed that each member of any society is a leader to some degree.

Whitehead concluded that leadership consists of obtaining the permission of a group to make an individual contribution and to give it a way of life somewhat different from what it would otherwise have had. It is of the essence of a democratic society that individual initiative, or leadership, be shared in a relatively high degree by all its members. Kamm (1982) pointed out that leadership is the quality of the behavior of individuals whereby they guide people or their activities in organized effort. Leadership depends on three things: the individual, the follower, and the situation. Kamm contended that the catalyst that brings leaders and followers together is faith, faith of the followers in the leader, and faith that satisfaction will be the result of following the leader. Until recently, Kamm reported, the trend in management has been away from leadership and almost exclusively concentrated in the organizing function of management. Kamm provided the following qualities of leadership to create faith:

1. Vitality and endurance (a physical demonstration of a willingness to contribute a lot of energy)
2. Decisiveness (an indication that the leader has a clear concept of the resultant)
3. Persuasiveness (an ability to interpret objective incentives into subjective values)

4. Responsibility (a propensity to act under a given set of circumstances)

5. Intellectual capacity (a better intellect than the follower, but not too much better).

In his study of top-level executives--presidents, chairmen, and chief executive officers of multinational billion-dollar corporations--Golightly (1976) found that moral excellence, character, or moral strength with its components--integrity, courage, sincerity, intelligence--were repeated most frequently as success factors in business and industry. Golightly concluded that it no longer matters so much who you know, and only partially what you know. Success depends primarily on what you are.

For many years, Maccoby (1979) worked with and studied leaders in business, industry, unions, and government who were trying to develop models of organizations that bring out the best in people. These leaders were convinced that by balancing concern for people (humanistic values) with attention to mission (economic values), it is possible to design better organizations.

In summary, although business and industry are substantially production-oriented and driven, and view leadership development of employees to a large extent in relation to enhancing organization production, Maccoby (1979) revealed that there is also considerable concern for

people, their welfare, and their involvement and for moral consideration.

University Leadership: Past, Present, and Future

Schmidt (1930) revealed that before 1860, more than 90% of all senior administrators were ordained ministers who retained some or all of their pastoral duties. They had the ultimate responsibility for everything that affected the reputation of their institutions and the well-being of students. As administrators in early times fulfilled these functions, they exercised a great deal of authority.

Rudolph (1962) pointed out that the greatest difference between the university administrators in years past and senior administrators in more modern times is that the former lived on the campus, were not absent for long periods of time, probably taught every member of the senior class, knew most of the students by name, and indeed probably made a practice of calling on them in their rooms. The duties of these early senior administrators began to change during the latter part of the nineteenth century.

Educational researchers (Corson, 1960, 1975; Daly, 1961; Dodds, 1962; Harper, 1938; Henry, 1975; Kauffman, 1977; Kerr, 1972; Perkins, 1973; Stoke, 1959) pointed out a variety of factors that have contributed to the expansion of higher education and, in turn, the evolution of duties of

senior university administrators. These factors and indicators of change include the industrial revolution, the secondary school movement, the establishment and growth of state universities, the Morrill Act of 1862, Johns Hopkins University, graduate education, and reemphasis on science.

Schmidt (1930) emphasized that during this period of profound change, the roles of senior administrators as teachers and patriarchs gave way to that of business executive. This was the time, according to Schmidt, when financial acumen and organizing ability came to rate higher than classroom skills and pulpit oratory. Eells and Hollis (1961) asserted that the role of university senior administrators was increasing in burden and complexity during this period. It was also during this period that administrative staffs became permanent fixtures within the university organization. Brubacher and Rudy (1958) revealed that this was a period of tremendous expansion and differentiation of the administrative functions which was the major change embraced in the new terminology of the modern university senior administrator. According to Donovan (1957), because senior administrators have learned the art of delegation, their office is much more efficient today than it has ever been. Because senior administrators have employed administrative techniques of government, business, and industry, their position is more like that of

an executive, and less like that of teacher or preacher. Modern university senior administrators have multiplied their services many times through the creation of other offices, which include vice-president, provost, dean, registrar, director of public relations, and counselors. Donovan emphasizes that this is the greatest difference between senior administrators of earlier periods and senior administrators of today.

Dodds (1962) and Walberg (1969) agreed that the role of senior administrators as eminent scholars has presently decreased. Corson (1960) described the role of modern university senior administrators by analyzing how two major university senior administrators spent their time: 40% of their time on financial matters, 20% on public and alumni relations, 12% on problems of physical facilities, 10% on general administration, and 18% (less than one-fifth) on education matters. Walberg (1969), in an extensive study of 180 senior administrators in New York State on 18 different activities grouped into four main areas, based his data on the average time reported by the administrators, and found the following distributions; administrative activities--35.6%, external activities--31.4%, collegial activities--22.7%, and individual activities--10.1%. Walberg concluded that the senior administrator's role in the area of collegial activities is considered comparatively minor.

Larger blocks of administrators' time, and probably their energy, are given to administering their institution to outsiders.

Cowley (1956) contended that senior administrators actually superintend, facilitate, develop, and lead in making policy. Demerath, Stephens, and Taylor (1967) pointed out that, more specifically, senior administrators may be seen as financial advisers, academic managers, father figures, public relations officers, and educators. They concluded that whatever the description, senior administrators retain the responsibility for the entire operation of an institution.

Corson (1960) stressed the idea that senior administrators must be responsible for whatever is going badly in their institutions. Corson also viewed senior administrators as being at the center of power and leadership in an institution, surrounded by other functions such as faculty selection, student affairs, public and alumni relations, physical facilities, finance, and educational programs. Prichard, Buxton, and Sintek (1972) analyzed responses from 55 senior administrators who were asked to disclose their greatest problem as university administrators. Evidence from their study suggests that finance, listed by 25 respondents, was the primary problem confronting most of the university senior administrators

studied. Fourteen respondents listed work tasks and routines while seven revealed faculty and faculty recruitment as their greatest concern.

In recent years, the ever-expanding role of senior administrators has gained more attention. Jones and Stanford (1964) stated that most of the added demands on senior administrators and their staffs have come about within the last 20 years. The Carnegie Commission (1973) revealed that since 1900, enrollments at institutions of higher education have doubled every 14 or 15 years. Corson (1969) supported the Carnegie report and maintained that every institution experienced, in some measure, the consequences of three revolutions that racked the nation during the 1960s--technological revolution, the urbanization revolution, and the human rights revolution.

McNett (1970) revealed that there have been three generations of senior administrators--the first generation came from an academic background before World War II. Then, with the tremendous growth of higher education in two decades after the war, the prototypical university senior administrator was an institution builder. Today, according to McNett, the university senior administrator is a crisis manager. Kerr (1964) described the "multiversity" senior administrator as a leader, educator, creator, initiator, wielder of power, pump; he or she is also office holder,

caretaker, inheritor, consensus-seeker, persuader, bottleneck, but mostly a mediator. Kerr (1970) predicted that future senior administrators will be academic statesmen. Academic statesmen, according to Kerr, will seek the same goals as academic executives, which include well used resources, effective policies, reform quality, and consent, but with new methods. Generally, the academic statesmen's conduct will be less in the committee room and more in the open. Public relations, on and off campus, will be of greater concern. The new senior administrators will be more visible, more accessible, and more of public personality.

Mayhew (1971) predicted that the only workable option for future senior administrators is a restoration of power to administrators and their central administration. Mayhew visualized new senior administrators acting as prime ministers, free to conduct affairs of state according to their own discretion while remaining responsive to the broad notions of the majority in parliament. Hodgkinson (1971) contended that if universities become modified quasi-public utilities in the future, as suggested by Kerr, then senior administrators of the future will represent political rather than on-campus groups.

Ronning (1973), in a study of perceived leadership role behaviors of presidents at selected, private institutions of

higher education in New York State, found that administrators were perceived as (a) benevolent leaders with added qualities found in the stereotype of the dictatorial leader, (b) strong leaders with authority over all segments of the university with the exception of the board of trustees, and (c) friends to all segments of their university. Senior administrators were also described as peacemakers and conciliators. Their image was still projected as the leader in charge of the university.

Kauffman (1980) concluded that senior administrators are at the center of vastly complex and fragile human organizations. Whatever one chooses as a leadership metaphor--prime minister, executive, administrator, or manager--the senior administrator must be effective or the institution will suffer.

Summary

Literature on the concept of leadership reveals a series of studies by researchers and theorists who have attempted to define or classify the concept into various subsets according to the background of the research. Stogdill (1974) concluded that there are almost as many definitions of leadership as there are persons who have attempted to define the concept.

A later approach to the study of leadership concentrated on the characteristics or traits of great leaders. These studies failed to identify any group of characteristics or traits common among all leaders.

A variety of researchers have examined the effects of different leadership styles in an effort to determine how a particular style affects or is affected by the environment or situation. Hersey and Blanchard (1977) indicated that the leadership process is a function of the leader, the follower, and other situational variables, $L = f(l, f, s)$.

The behavioral approach focuses on what the leader does and how--the leader's style or behavior--autocratic, democratic, and laissez-faire. Havighurst (1972) concluded that leaders need to develop a leadership style based on their recognized knowledge and performance in the areas in which they propose to lead.

Recently, a new concept of leadership emphasized leaders' knowledge of the future. Wenrich (1976) and Morris (1985) contended that leaders must live ahead of others in their chosen area.

CHAPTER 3

PROCEDURE FOR COLLECTION AND ANALYSIS OF DATA

The purpose of this study was to determine the prevalent leadership styles of senior administrators in the 37 public universities in Texas. The administrative leadership styles of senior administrators of the public universities in Texas were also compared based on various personal and institutional variables.

The procedures used for collection and analysis of data concerning this study are described in this chapter. Six sections of this chapter include the description of the population, the sample, the instrument, the questionnaire, the research design, and the procedure for the analysis of data.

Description of the Population

The population for this study was made up of senior administrators of the 37 public universities in Texas (Appendix A). The senior administrators used in this study were grouped according to the enrollment of their institution: (a) institutions with enrollment up to 4,999, (b) institutions with enrollments from 5,000 to 9,999, and

(c) institutions with enrollments of 10,000 or over. The division of the 37 universities into three groups according to size or population was an arbitrary decision for the purpose of data collection and analysis. The institutions' total enrollments, names, and addresses are listed in the Institutions of Higher Education in Texas 1990-1991, published by the Texas Higher Education Coordinating Board (1991). The total enrollments, names, and addresses of senior administrators were also confirmed with catalogs from each of the universities. Thirteen institutions fell into group one, and 12 institutions fell into each of the other two groups. The total population was 185.

Procedures for Collection of Data

Two weeks before sending the survey instruments to the selected senior administrators in Texas public universities, a letter (Appendix D) was mailed to them on January 25, 1991, stating that they would soon receive the survey instruments.

A second mailing to each selected senior administrator in the sample in the spring 1991, included a copy of the Styles of Leadership Survey (Appendix B), a demographic data questionnaire (Appendix C), a stamped self-addressed return envelope, a cover sheet (Appendix F), and a cover letter

(Appendix E). Each selected senior administrator was assured of confidentiality (Appendix E).

In order to facilitate follow-up procedures, the cover sheet (Appendix F) which was stapled to the questionnaire provided a place for the administrator's name, institution, address, and a question asking if the respondent would like to receive a copy of the abstract of the completed study. The survey instruments were coded with matching numbers in order to identify each institution as being in one of the three groups of the study. After recording the names of the administrators who desired a copy of the abstract and recording the receipt of a response from an institution, the cover sheets were removed and destroyed.

A minimum of 60% return of the survey instruments was required for adequate statistical analysis. A follow-up letter (Appendix G) was mailed approximately 4 weeks after the initial mailing. Finally, telephone contact was initiated to insure the highest possible number of returns. The last response was received on June 26, 1991. A total of 101 senior administrators (91% of the population) provided usable returns for the study. The 4.5%, or 5, senior administrators who declined to participate cited a lack of time or an excessive number of research requests as the primary reason for their unwillingness to participate. No response at all was received from 2.7% of the

administrators, and 1.8% of the administrators returned unusable or incomplete survey instruments. The institutions of the participating administrators and their respective groups are listed in Appendix A.

Selection of the Sample

One hundred eleven out of a population of 185 senior administrators at the 37 public universities in Texas were selected to participate in this study. The sample was based on the percentage representation of each of the three groups of institutions: 60% of the senior administrators were selected from each of the 37 public institutions, yielding 39, 36, and 36 for groups one, two, and three, respectively.

Selection of the Survey Instrument

Several instruments and books were reviewed in order to determine the most appropriate instrument for use in identifying the leadership styles of senior administrators in the public universities of Texas. After a thorough search of The Eighth Mental Measurement Yearbook, by Oscar K. Buros (1978), the Styles of Leadership Survey (SLS) was chosen as the most appropriate instrument for this study (Appendix B).

The SLS was developed by Jay Hall and Martha S. Williams in 1968. It has been reviewed and updated periodically and is distributed by Teleometrics

International, Houston, Texas. The Eighth Mental Measurement Yearbook indicates that the instrument has been used in studies for 1 book, 2 professional journals, and 5 doctoral dissertations. In a recent publication, Teleometrics International indicated that the instrument has been used in 13 research studies including 9 doctoral dissertations, 3 master's theses, and 1 article. The company states that the instrument's current normative sample of 2,844 includes leaders from educational, civic, business, industry, government, and service organizations. The average age of those comprising the normative sample was 37.7 years, with a range from 17 to 69 years. The average number of subordinates supervised by these leaders was 34, with a range from 4 to 403. Teleometrics International pointed out that leadership style is affected by age, the number of people supervised, rank of the leader, and organizational and occupational type.

Korman (1966), in a review of the instrument for The Eighth Mental Measurement Yearbook, revealed that the reported test-retest correlation of the instrument is .75. The current construct and concurrent validities and the reliability of the instrument were based on a normative sample of 2,844. Currently, reported median coefficient of stability of the instrument is greater than .70.

Best (1970) pointed out that a coefficient of stability of $r = .60$ to $.80$ shows a substantial or marked significance of relationship. Therefore, the .75 reliability of the SLS is substantially significant.

The SLS, which has been used for several studies (Ang, 1984; Ball, 1976; Beyerman, 1990; Blankenship, 1982; Cole, 1976; Joo, 1989; Lowry, 1984; Moore, 1973; Stine, 1975; Taylor, 1975; Vanderveen, 1986; Weed, Mitchell, & Moffitt, 1976) is based on a two-dimensional grid analysis of leadership practices, essentially like that developed by Robert R. Blake and Jane S. Mouton, of Scientific Methods in 1964. The instrument, designed primarily as a learning aid, consists of a form of concern for purpose and concern for people. It provides analysis of the overall leadership style as well as four components of leadership: philosophy of leadership, planning and goal setting, implementation, and performance evaluation.

Hall and Williams (1968) indicated that the Leadership Grid Model assesses leadership practices based on the following factors which have been found in organizations:

1. Purpose--the reason for being which characterizes the organization, the objective to be served by organized action in the first place.

2. People--the human resources which comprise the organization.

3. Power--the natural by-product of interpersonal activities which emerges as the relative capacity one has for influencing the thoughts and/or behavior of other members of the organization.

4. Philosophy--the general conception of how things are to be done within the organization and the value system which characterizes its practices toward people as compared with purpose.

Each senior administrator in the sample was asked to respond to a series of 12 questions (divided into three categories) concerning the behavior of individuals as they carry out their administrative functions as leaders of groups or organizations. Each category of questions was further divided into five alternative patterns of individual behavior or attitudes as possible responses to each situation. From each of the five alternatives, the respondent weighed the answer on a scale from completely characteristic (10) to completely uncharacteristic (1) and then rank ordered the possible answers.

With data collected from this process, a position on the Leadership Grid Model was plotted, corresponding to either one of the four extreme points on the grid quadrants or the midpoint on the grid. The five styles of leadership suggested by the grid model used in the development and interpretation of the SLS according to Hall and Williams

(1986) are 9/9, 5/5, 9/1, 1/9, 1/1. Thus, the grid model reveals that the 9/9 style reflects the highest degree of concern for purpose and people. The 9/9 leader believes that work is healthy for people, that people have an innate need to work and must achieve some task issues in order to feel good about themselves. For this leader, purpose and people are interdependent--literally, people are necessary to accomplish the purpose, and accomplishment of purpose is necessary for people.

While the 9/9 style reflects a maximal concern for both purpose and people, the 5/5 style reflects a moderate concern for both dimensions. Compromise is the 5/5 leader's way of dealing with perceived conflict between people and work. This leader understands the need to push for results but tries to yield enough to maintain some kind of balance between people and work.

The primary concern of the 9/1 leader is output or production, with a minimal concern for people. The 9/1 leader views people as contributors to the goals of the organization and expects them to carry out assigned plans and directions. The 9/1 leader feels that people do not like to work and, therefore, must be directed and controlled.

The 1/9 leadership style reflects minimal concern for purpose and maximal concern for people. The 1/9 leader

focuses on people and their relationships. The 1/9 leader feels that people are fragile and, therefore, tries to protect them from the organization.

The 1/1 leadership style reflects a minimal concern for both purpose and people. The leader does not want to attain any reasonable results or establish sound relationships with people. The major goal is to stay out of trouble by avoiding risk and to meet only minimum requirements for both results and relationships. The basic assumption of this leader is that people are lazy and indifferent.

The statistical 5/5 leadership style reflects the use of a variety of leadership styles in dealing with individuals and relationships. The leader selects a particular style on the basis of what he or she thinks is effective at a particular time. Some of the disadvantages of the statistical 5/5 include inconsistency in leadership, in-group discontent arising from differential treatment, member insecurity because of lack of predictability, and the danger of inaccurate assessment on the part of the leader.

The leadership model assumes that an administrator will utilize all five leadership styles at one time or another, but the SLS instrument (Hall & Williams, 1986) identifies the predominant style and back-up style as well as a measure of style strength. Totals and subscores are derived from weighted responses to 12 questions concerning the four

common administrative functions: philosophy of administration, planning and goal setting, implementation, and evaluation. The raw scores are totalled by style, converted to t -scores (conversion tables are provided by the authors), and plotted on the leadership quadrants. Predominant and back-up styles are determined by rank ordering the t -scores. The highest t -score represents the predominant style, while the next highest represents the back-up style. It is also possible to examine leadership styles in relation to the leadership components.

Response to the 10-point scale items, therefore, makes it possible to determine preference for a particular leadership style and to identify back-up tendencies which may be used in place of preferred behavior under certain stress levels.

According to Hall and Williams (1986), the t -scores have a mean of 50 and a standard deviation of 10. Therefore, if the difference in t -scores between the preferred and back-up styles is 10 or more (greater than 1 standard deviation), the administrator will resist moving into the back-up style to a moderate extent. If the difference is as much as 20 (2 standard deviations), the resistance against moving into a back-up style would be stronger. Differences of less than 1 standard deviation between preferred and back-up styles are indicative of low

style strength. Such low style strength is interpreted as indicative of a fairly quick abandonment of the preferred style of leadership.

The two major areas of concern on interpretation of the \bar{t} -scores are preference for a particular leadership style and persistence in the preferred style of leadership. However, differences of less than one standard deviation between the \bar{t} -score for all five styles is interpreted by Hall and Williams (1986) as a "statistical 5/5" position. Blake and Mouton (1964, 1978) strongly supported this classification regardless of which style has the highest \bar{t} -score, when none of the four different scores is 10 or larger.

The reliability and validity of the The Styles of Leadership Survey (Hall & Williams, 1968) is updated annually. The instrument was most recently used in a doctoral study at Boston University. No studies were found that specifically determined the leadership styles of presidents of public universities in Texas, however.

Questionnaire

A questionnaire developed for this study (Appendix C) was sent to the senior administrators along with the survey instrument. This questionnaire, used to collect demographic and institutional information, was based on items drawn from

an extensive review of the literature. Among the personal characteristics surveyed were age, gender, current position title, number of years in present position, number of years at present institution, total number of years in administration, highest degree earned, and total number of years in teaching. The institutional data collected included size and/or population for fall semester 1990, and number of full-time professional staff (non-clerical) reporting directly to a senior administrator.

To validate the survey instruments, a panel of five senior administrators was randomly selected from the 37 public universities in Texas. These administrators were asked to evaluate and validate the survey questions. Eighty percent of the administrators validated the survey instruments with few corrections on the demographic leadership data sheet. Revisions were made on the demographic questionnaire based on the panel's recommendations.

Research Design

The present approach may be more accurately described as an analytical survey in which, according to Leedy (1974), data are analyzed in order to infer meaning from them. This design attempts to discern the presence of potentials and dynamic forces, according to Leedy or relationships which

exist within those data that may suggest possibilities for further investigation. In addition, the analytical surveys are concerned with estimation problems which demand the testing of statistically-based hypotheses and, therefore, require the use of inferential statistical methods.

Procedure for the Analysis of Data

The SLS was scored on the scoring form provided in the instrument. Raw scores were then prepared on a keypunch worksheet and coded at the University of North Texas data and computing center for processing. Each null hypothesis was analyzed at the .05 significance level using the Statistical Package for Social Sciences (SPSS). The data were continuous and interval except for hypothesis 1 which was nominal.

The first hypothesis was tested using corrected chi-square goodness of fit to determine the predominant leadership style of the senior administrators. The use of chi-square requires the construction of a contingency table in order to determine observed and expected values. According to Cornett and Beckner (1975), a contingency table may be of any size, depending on the number of cells involved; however, low cell frequencies (expected or observed) may result in overestimates and incorrect decisions concerning significance. These problems may be

avoided by two statistical techniques. When an observed frequency is less than 5, Cornett suggests the cell should be collapsed. If the expected frequency is less than 10, the computed chi-square value is likely to be an overestimate.

Therefore, the Yates (1934) correlation formula should be applied rather than the standard chi-square formula. The Yates correction formula is expressed as

$$X^2 = \sum \frac{(O - E - .5)^2}{E}$$

The Yates formula reduces each expected cell frequency by .05 and increases each observed frequency by .05. In order to avoid the possibility of inaccurate decisions on the hypotheses, cells were collapsed and the Yates correction formula was applied where appropriate.

The first hypothesis was tested using the corrected chi-square. Although chi-square lacks power in comparison to other statistical methods, if no assumptions can be made about the pattern of the distribution of the variables in the population under study or if the data are nominal or ordinal in nature, nonparametric statistics should be used to analyze the sample data (Thomas & Young, 1986). Therefore, corrected chi-square is the best technique for testing the first hypothesis of this study. The SLS yields

a score for each of the five styles of the Hall and Williams Leadership Grid (1986) for each respondent. Using frequency counts and nominal level data to determine the first choice of leadership style provides a picture of the predominant style as needed for initial analysis of the data from the survey.

Borg and Gall (1971) and Cornett and Beckner (1975) described chi-square as a nonparametric statistical test that is often used in causal-comparative studies, particularly when the research data are in the form of frequency counts. These frequency counts can be placed into two or more categories. Chi-square is the most common device for testing the significance of educational data when data is classified into categories. The chi-square test can also be used with discrete data or to determine which group means differ significantly from one another (Borg & Gall, 1971).

Following the corrected chi-square analysis to determine whether there was a predominant leadership style, other analyses of a more exacting nature were made. Research subhypotheses 1 through 10 were analyzed using interval data with two statistical methods: one-way analysis of variance and the least significant difference for all possible comparisons. An analysis of variance was run using each of the leadership styles' raw score data for

each hypothesis to determine if any of the various groupings differed significantly from the others for the five leadership styles (dependent variables) and the personal and institutional characteristics (independent variables). If the F -ratio was statistically significant, the least significant difference test was completed to determine which group means differed significantly from the others.

Least Significant Difference Test =

$$t/2v \sqrt{\frac{2MS}{n}}$$

A variety of multiple comparison procedures, including Scheffé (1953), Turkey (1953), Duncan (1955), Newman (1939), Keuls, (1952), and Dunnett (1955), were initially considered with emphasis on Scheffé (1953) and Fisher's (1974) least significant difference. Kirk (1968), Sheskin (1984), Ferguson (1981), and Brookshire (personal communication, June 28, 1991) revealed that Scheffé's procedure is one of the most conservative. It is also much less powerful than other procedures for evaluating pairwise comparisons, and, consequently, is recommended only when complex contrasts are of interest.

The least significant difference, developed by Fisher, was therefore selected as the most appropriate form of multiple comparison for this study. Kirk (1968) pointed out

that Fisher (1974) described the least significant difference test as the first posteriori comparison procedure. The least significant difference test, according to Kirk (1968), consists of first performing a test of the overall null hypotheses by means of an F statistic. If the overall F statistic is not significant, no further tests are performed, but if the null hypotheses is rejected, the least significant difference test is used to evaluate all pairwise comparisons among means. Kirk further revealed that this procedure has been widely used in research, and that the least significant difference is one of the most liberal multiple comparison procedures available. The least significant difference test was therefore the most appropriate test for this study because of the unique characteristics which differentiate it from other multiple comparison procedures.

Descriptive statistics, including frequencies and percentages, were also used to summarize the data collected from the demographic questionnaire. Frequency distributions were used extensively on all variables including personal characteristics, institutional characteristics, and leadership styles. Frequencies were tabulated not only for the purpose of presenting a profile but also as a basis for constructing the contingency table for hypothesis 1. The questions were analyzed, described, and illustrated in both

descriptive and analytical forms in order to provide a comprehensive investigation of the information on the leaders included in the study. Additional tests were made to examine various relationships that evolved as initial data were analyzed.

Summary

This chapter contains a description of the procedures followed in accomplishing the purposes of the study. The selection of the population and sample, the survey instrument, the development of the demographic questionnaire, the detailed explanation of the research design, procedures for data collection, and the statistical analysis of the data are also discussed.

CHAPTER 4

PRESENTATION AND ANALYSIS OF DATA

The methods used to analyze data collected for this study and the results of the analysis are presented in this chapter. The first section of the chapter, in which the demographic data are presented, describes the distribution of respondents according to personal and institutional characteristics (Appendix A and Appendix C). The second section is organized according to the research hypotheses; the analytical data collected in the survey are presented for each of the 11 hypotheses.

This study was designed to describe and analyze the leadership style of the senior administrators of the 37 public universities in Texas. Research was based on the leadership grid model developed by Hall and Williams in 1986.

Description of the Sample

On February 1, 1991, 111 senior administrators (chancellors, presidents, and vice-presidents) of the 37 public universities in Texas were surveyed from a population of 185 senior administrators. Data were obtained from responses to a demographic questionnaire and a styles of

leadership survey returned by 101 (91.0%) of the senior administrators. Data describing the demographic characteristics of the responding sample were obtained from questions one through nine of the demographic questionnaire (Appendix A) and the size of the institutions. The institutions were divided into three groups based on enrollment.

The statistical analysis of data was designed to determine the predominant leadership style of the senior administrators of the public universities in Texas and to determine whether significant differences existed in the leadership styles of these administrators with regard to various demographic and institutional variables. A significance level of .05 was established for the research. The data are analyzed and presented in sections that describe the sample, the testing of both the major hypothesis and subhypotheses as outlined in Chapter 1. Results derived from the data analysis are presented in appropriate tables and discussed in the related explanation.

Descriptive Analysis of Demographic Data

Demographic data for the senior administrators who responded to the questionnaire are presented in Tables 1 through 11. The independent variables examined include population of institutions by groups (Appendix A), age,

gender, current position title, number of years in present position, number of years at present institution, total number of years in administration, total number of years in teaching, and number of full-time staff (non-clerical) reporting directly to an administrator. The data from these tables, although not utilized in the statistical analysis, revealed the senior administrators' domain within their respective institutions and other major characteristics of the leaders and their institutions.

Institutional Demographic Information

The Texas Higher Education Directory 1990-1991, published by the Association of Texas Colleges and Universities, Austin, Texas, and the respective university catalogs for the 1990-1991 school year were used as the basis for the three categories of institutions by size of populations: institutions with enrollment up to 4,999 (group 1), 5,000 to 9,999 (group 2), and 10,000 or over (group 3). One hundred and one (91.0%) of the 111 senior administrators responded to the questionnaire.

Response by Institutional Group

The number and percentage of senior administrators who completed the instruments are presented by institutional size in Table 1. Almost all the senior administrators surveyed (97.2%) in group 2 and group 3 responded to the

Table 1

Response of Senior Administrators of Public Universities in Texas by Institutional Group

Population of Institution/ Institutional Group	Response	Percentage
Up to 4,999	31/39	79.5
5,000 to 9,999	35/36	97.2
10,000 or over	35/36	97.2
Total	101/111	91.0

Note. N = 101.

survey while 79.5% of the senior administrators in group 1 completed the instruments.

Age

Age ranges on the demographic questionnaire were: less than 30 years, 30 to 39 years, 40 to 49 years, 50 to 59 years, and 60 or more years. The age distribution of the responding senior administrators is shown by number, percentage, and size of institution in Table 2. None of the administrators were less than 30 years of age. Almost one-half (44.6%) were in the 40 to 49 age group, a little over one-third (36.6%) were in the 50 to 59 age group, and over four-fifths (82.2%) were in the 40 to 50 group. The 40

Table 2

Age Distribution of Senior Administrators of Public Universities in Texas

Age of the Senior Administrators	Enrollment of Institutional Group			N	%
	Up to 4,999 (1)	5,000 to 9,999 (2)	10,000 or more (3)		
Less than 30 years	0	0	0	0	0.0
30 to 39 years	2	2	2	6	5.9
40 to 49 years	14	18	13	45	44.6
50 to 59 years	11	13	13	37	36.6
60 or more years	4	2	7	13	12.9
Total	31	35	35	101	100.0

to 50 age group was almost equally divided between the three subgroups of institutions: 28 were in group 1, 31 were in group 2, and 26 were in group 3. The highest number of the leaders in the 60 or over age category (53.8%) were in group 3 institutions.

Gender

As shown in Table 3, more than three-fourths of the administrators (80.2%) were males. Twenty-seven male administrators were in group 1, 26 were in group 2, and 28 were in group 3 institutions. Almost one-fifth (19.8%) of

Table 3

Gender Distribution of Senior Administrators of Public Universities in Texas

Gender of Senior Administrators	Enrollment of Institutional Group			N	%
	Up to 4,999 (1)	5,000 to 9,999 (2)	10,000 or more (3)		
Male	27	26	28	81	80.2
Female	4	9	7	20	19.8
Total	31	35	35	101	100.0

the respondents were females. Four female administrators were in group 1, 9 were in group 2, and 7 were in group 3 institutions. The combined ratio of the administrators responding to the study was four males to one female.

Current Position Title

As shown in Table 4, a majority of the responding administrators (85.2%) were vice-presidents of their institutions. Almost one-fifth (15.8%) of the administrators were presidents, and only one (1.0%) was a chancellor. This one chancellor was from an institution in group 3. Five presidents and 26 vice-presidents were in group 1 institutions, 7 presidents and 28 vice-presidents were in group 2 institutions, and 4 presidents and 30

Table 4

Official Title of Senior Administrators of Public Universities in Texas

Official Title of the Senior Administrators	Enrollment of Institutional Group			N	%
	Up to 4,999 (1)	5,000 to 9,999 (2)	10,000 or more (3)		
Chancellor	0	0	1	1	1.0
President	5	7	4	16	15.8
Vice-president	26	28	30	84	83.2
Dean	0	0	0	0	0.0
Total	31	35	35	101	100.0

vice-presidents were in group 3 institutions. No deans of student affairs were included in this study.

Number of Years in Present Position

The distribution of administrators based on the number of years employed in their present positions is shown in Table 5. Almost one-half (43.6%) of the respondents had held their present positions from 2 to 5 years: 14 were in group 1, 18 were in group 2, and 12 were in group 3 institutions. Almost one-fourth (24.8%) of the administrators had been in their present positions from 6 to

Table 5

Number of Years in Present Position of Senior Administrators
of Public Universities in Texas

Number of Years in Present Position	Enrollment of Institutional Group			N	%
	Up to 4,999 (1)	5,000 to 9,999 (2)	10,000 or more (3)		
0 to 1 year	3	4	4	11	10.9
2 to 5 years	14	18	12	44	43.6
6 to 9 years	10	5	10	25	24.8
10 or more years	4	8	9	21	20.8
Total	31	35	35	101	100.0

9 years, over one-fifth (20.8%) had served for 10 or more years, and over one-tenth (16.9%) had been employed 1 year or less.

Number of Years at Present Institution

The senior administrators were asked to indicate the number of years they had been at their respective institutions. As shown in Table 6, more than one-half (53.5%) of the respondents had been at their present institutions for 10 years or more: 17 were in group 1, 16 were in group 2, and 21 were in group 3 institutions. Almost one-fourth (23.8%) had been in their present

Table 7

Number of Years in Administration of Senior Administrators
in Public Universities in Texas

Number of Years in Administration	Enrollment of Institutional Group			N	%
	Up to 4,999 (1)	5,000 to 9,999 (2)	10,000 or more (3)		
0 to 1 year	0	1	0	1	1.0
2 to 5 years	5	5	2	12	11.9
6 to 9 years	3	4	1	8	7.9
10 or more years	23	25	32	80	79.2
Total	31	35	35	101	100.0

2, and 32 were in group 3 institutions. Of the remaining respondents (20.8%), 11.9% had been in administration for 2 to 5 years, 7.9% for 6 to 9 years, and only 1.0% had spent 1 year or less in administration. For the combined groups, more than four-fifths (87.1%) of the administrators had been in administration for 6 to 10 years.

Highest Degree Earned

The senior administrators were also asked to indicate their highest degrees earned. Their responses, tabulated and presented in Table 8, indicate that almost three-fourths (69.3%) of the respondents held doctorate degrees: 22 in

Table 6

Number of Years at Present Institution of Senior Administrators of Public Universities in Texas

Number of Years at Present Institution	Enrollment of Institutional Group			N	%
	Up to 4,999 (1)	5,000 to 9,999 (2)	10,000 or more (3)		
0 to 1 year	0	2	2	4	4.0
2 to 5 years	5	14	5	24	23.8
6 to 9 years	9	3	7	19	18.8
10 or more years	17	16	21	54	53.5
Total	31	35	35	101	100.0

institutions for 2 to 5 years, almost one-fifth had held their position for 6 to 9 years, and only 4% (2 leaders were in group 2 and 2 were in group 3) had served their institutions for 1 year or less.

Number of Years in Administration

In addition to the number of years in present institution, the senior administrators were asked to indicate the number of years each administrator has been in administration. The data summarized in Table 7 indicate that almost four-fifths (79.2%) had been in administration for 10 years or more: 23 were in group 1, 25 were in group

Table 8

Highest Degrees Earned by Senior Administrators of Public Universities in Texas

Degrees Earned	Enrollment of Institutional Group			N	%
	Up to 4,999 (1)	5,000 to 9,999 (2)	10,000 or more (3)		
Bachelor's degree	2	4	3	9	8.9
Master's degree	7	9	6	22	21.8
Doctorate degree	22	22	26	70	69.3
Total	31	35	35	101	100.0

groups 1 and 2, and 26 in group 3. A little more than one-fifth (21.8%) of the respondents held master's degrees and the remaining 8.9% held bachelor's degrees. Of the administrators who held bachelor's degrees, 2 were in group 1, 4 were in group 2, and 3 were in group 3.

Total Number of Years in Teaching

The distribution of administrators based on their total number of years in teaching is shown by number, percentage, and size of institution in Table 9. More than one-third (37.6%) of the respondents reported spending over 10 years in teaching; 13 in group 1, 14 in group 2, and 11 in group 3 institutions. Almost one-third (30.7%) indicated teaching

Table 9

Number of Years in Teaching of Senior Administrators of
Public Universities in Texas

Number of Years in Teaching	Enrollment of Institutional Group			N	%
	Up to 4,999 (1)	5,000 to 9,999 (2)	10,000 or more (3)		
0 to 1 year	7	10	14	31	30.7
2 to 5 years	5	6	7	18	17.8
6 to 9 years	6	5	3	14	13.9
10 or more years	13	14	11	38	37.6
Total	31	35	35	101	100.0

for 1 year or less: 7 in group 1, 10 in group 2, and 14 in group 3, and almost one-fifth (17.8%) had taught from 2 to 5 years: 5 in group 1, 6 in group 2, and 7 in group 3, the largest institutions.

Number of Full-Time Staff Reporting
Directly to the Administrator

The last question on the questionnaire concerned the number of full-time (non-clerical) staff reporting directly to the administrator. The responses to this question are summarized in Table 10.

Table 10

Number of Staff Reporting Directly to Senior Administrators
of Public Universities in Texas

Number of Staff Reporting to Senior Administrators	Enrollment of Institutional Group			N	%
	Up to 4,999 (1)	5,000 to 9,999 (2)	10,000 or more (3)		
0 to 1 staff	0	1	2	3	3.0
2 to 5 staff	8	6	7	21	20.8
6 to 9 staff	13	15	13	41	40.6
10 or more staff	10	13	13	36	35.6
Total	31	35	35	101	100.0

The resulting data revealed a fairly even distribution of full-time staff members reporting to the administrators in each group of institutions. More than one-third (40.6%) of the leaders had between 6 and 9 staff members reporting to them, more than one-third (35.6%) also had more than 10 employees reporting to them, and one-fifth (20.8%) had between 2 and 5 employees reporting to them. In combined groups, over three-fourths (76.2%) had between 6 and 10 employees reporting directly to them: 23 were in group 1, 28 were in group 2, and 26 were in group 3 institutions.

Leadership Preference of the Senior
Administrators by Institutional
Group

Although not included in the demographic questionnaire, the leadership preference of the leaders in the three groups of institutions was revealed as the descriptive data were analyzed. The distribution is provided in Table 11.

Table 11

Leadership Style Characteristics of Senior Administrators of
Public Universities in Texas

Leadership Style	Enrollment of Institutional Group			N	%
	Up to 4,999 (1)	5,000 to 9,999 (2)	10,000 or more (3)		
9/9--collaborative (AAA)	21	28	26	75	74.3
5/5--strategic (AA)	8	2	7	17	16.8
9/1--directive (A)	1	2	2	5	5.0
1/9--supportive (BB)	0	3	0	3	3.0
1/1--bureaucratic (B)	1	0	0	1	1.0
Total	31	35	35	101	100.0

Almost three-fourths (74.3%) of the leaders selected the 9/9 style as their most preferred leadership behavior: 21 in group 1, 28 in group 2, and 26 in group 3. The 9/9

style represented the predominant leadership style of the administrators in this study. The 5/5 leadership style was chosen by 8 leaders in group 1, 2 in group 2, and 7 in group 3. The directive 9/1 style was preferred by 1 leader in group 1, 2 in group 2, and 2 in group 3. While three leaders in group 2 chose the 1/9 style, only one administrator in group 1 selected the 1/1 style.

Description of Data for Statistical Analysis

The raw data from the styles of leadership survey represented the total of the scale value numbers for the 60 items of the survey instrument for each of the five leadership styles. These raw data form the basis for the analysis of subhypotheses 1 through 10.

The t -scores of the respondents which were derived from the raw score data have a mean of 50 and a standard deviation of 10 (Hall & Williams, 1986). Hall and Williams explained that the t -score transformation allows for the adjusting of the raw scores so that the relative standing of the raw scores can be compared. They further stated that the t -scores reveal more about style preferences because the t -score transformation controls for response bias which can not be detected in the raw scores. The raw score means were utilized in the analysis of the subhypotheses for this study.

The main hypothesis and 10 subhypotheses were stated in the null form and were tested with four statistical techniques including chi-square, t-test, one-way analysis of variance, and the least significant difference test (Kachigan, 1986; Kerlinger, 1986; Kirk, 1982). The raw score means of the various groups and the Statistical Package for the Social Sciences (SPSS/PC+, Advanced Statistics, V2.0, 1988) were used for analysis at the .05 level of significance.

The mean research hypothesis was tested with corrected chi-square (Cornett & Beckner, 1975). The frequencies were tabulated to reveal the order of preference. The choices were then tested for the significant difference from a uniform distribution of leadership styles. A t-test was used to test subhypothesis 2 as it involved only two groups (males and females). Subhypotheses 1 and 3 through 10 were tested with one-way analysis of variance. This method was used to test statistically whether the means of the subsamples into which the sample data were broken were significantly different from each other. Finally, the least significant difference test, a multiple comparison procedure, was utilized to make all pairwise comparisons among means of subsamples that were detected by one-way analysis of variance to differ significantly from one another.

Main Hypothesis

There will be no significant difference in the administrative leadership styles of the senior administrators of the public universities in Texas. This hypothesis was tested using corrected chi-square to determine if there was a predominant administrative leadership style factor among the five leadership styles. The analysis also was used to determine if the senior administrators' choice of leadership style, differed from the uniform distribution of these five leadership styles. The uniform distribution, 20.2% of the leaders choosing each of the five leadership styles, was expected. The analysis is summarized in Table 12.

Testing of the main hypothesis using corrected chi-square revealed a significant difference at the .05 confidence level. The corrected chi-square value was also greater than the critical value of 9.49. The null hypothesis was rejected because there was no uniform distribution of leadership styles among the leaders. As indicated in Table 11, almost all the leaders in each of the three groups of institutions showed strongest preference for the 9/9 style. The predominant leadership style of senior administrators of the public universities in Texas, as indicated by almost three-fourths (74.3%) of the leaders, was the 9/9 style. Almost three-fourths (67.8%) of the

Table 12

Leadership Style Distribution of Senior Administrators of
Public Universities in Texas

Frequency of Highest Mean Score for Leadership Style on the SLS	Leadership Style				
	9/9	5/5	9/1	1/9	1/1
Expected response	20.2	20.2	20.2	20.2	20.2
Actual response	75	17	5	3	1

Note. SLS = Styles of Leadership Survey. 9/9 = collaborative (AAA), 5/5 = strategic (AA), 9/1 = directive (A), 1/9 = supportive (BB), 1/1 = bureaucratic (b). N = 101. Df = 4, critical value = 9.49, level of confidence = $p < .05$.

leaders in group 1, over three-fourths (80.0%) in group 2, and almost three-fourths (74.3%) in group 3 preferred the 9/9 style.

Subhypothesis 1

There will be no significant difference in administrative leadership styles based on the age of the senior administrators. An analysis was made using one-way analysis of variance to determine if age was a factor in the selection of leadership behavior by the administrators. The data are summarized in Table 13.

Raw score means, overall mean, standard deviation, F-value, and the probability values for each dependent

Table 13

One-Way Analysis of Variance of Leadership Styles of Senior Administrators of Public Universities in Texas With Regard to Age

Leadership Style	Raw Score Mean Based on Age of the Senior Administrators					F-Value	p-Value		
	0-30 (N = 0)	30-39 (N = 6)	40-49 (N = 45)	50-59 (N = 37)	60+ (N = 13)				
9/9--collaborative (AAA)	0.00	76.00	90.36	91.84	83.46	89.16	11.62	4.946	0.003
5/5--strategic (AA)	0.00	77.67	75.73	74.46	78.62	75.75	10.23	0.600	0.617
9/1--directive (A)	0.00	80.00	64.36	60.62	65.00	64.00	11.85	5.296	0.002
1/9--supportive (BB)	0.00	62.67	70.31	65.86	66.15	67.69	13.50	1.128	0.342
1/1--bureaucratic (B)	0.00	34.33	37.69	36.30	34.23	36.54	11.68	0.384	0.765

Note. Df = 3, 97; p > .05 is significant.

variable are presented in Table 13. A significant difference at the .05 confidence level is also indicated for two dependent variables: the 9/9 and 9/1 styles. The null hypothesis was therefore retained in all of the leadership style categories except the 9/9 and 9/1 styles.

The least significant difference test was computed for all pairwise comparisons among means and combination of groups. Differences in means on the selection of the 9/9 style based on the age of the administrators are presented in Table 14. Administrators in the age groups from 40 to 49

Table 14

Least Significant Difference Tests for Differences in Means for the 9/9 Leadership Style of Senior Administrators of Public Universities in Texas With Regard to Age

Category	Age Groups	N	Mean	Groups				
				1	2	3	4	5
1	Less than 30 years	0	0.00					
2	30-39 years	6	76.00					
3	40-49 years	45	90.36		*			*
4	50-59 years	37	91.84		*			*
5	60 or more years	13	83.46					

*Denotes pairs of groups significantly different at the .05 level.

and 50 to 59 had stronger preferences for the 9/9 style at the .003 significance level than did administrators in the 30 to 39 and 60 or over age categories.

Differences in means for the age groups on their preference for the 9/1 leadership style are also depicted in Table 15. As indicated in Table 15, administrators in age

Table 15

Least Significant Difference Tests for Differences in Means for the 9/1 Leadership Style of Senior Administrators of Public Universities in Texas With Regard to Age

Category	Age Groups	N	Mean	Groups				
				1	2	3	4	5
1	Less than 30 years	0	0.00					
2	30-39 years	6	80.00					
3	40-49 years	45	64.36		*			*
4	50-59 years	37	60.62		*			*
5	60 or more years	13	65.00					

*Denotes pairs of groups significantly different at the .05 level.

categories from 30 to 39 years differed significantly at the .002 confidence level in their choice of the 9/1 style from administrators in other age categories. Administrators in the 30 to 39 age group had higher interest in the 9/1

style than did the administrators in the combined age groups from 40 to more than 60 years.

Subhypothesis 2

There will be no significant difference in administrative leadership styles based on the gender of senior administrators. The t -test was used to analyze this hypothesis because only two independent groups (males and females) were involved. The results are presented in Table 16. As indicated in Table 16, there was no significant difference at the .05 confidence level in administrators' preferences for leadership style with regard to gender. The null hypothesis was therefore retained in all the leadership styles.

Subhypothesis 3

There will be no significant difference in the administrative leadership styles of senior administrators based on their administrative level within the institution. This hypothesis was analyzed using a one-way analysis of variance to determine whether current position title (chancellor, vice-chancellor, president, vice-president) was a factor in administrators' preferences for leadership style. As portrayed in Table 17, there was no significant difference at the .05 confidence level in the leadership style with regard to the administrative level of the

Table 16

t-Test Results on Leadership Styles of Senior Administrators of Public Universities in Texas With Regard to Gender

Leadership Style	Gender	N	Mean	SD	t-Value	TTP
9/9	Male	81	88.07	11.43	-1.91	0.059
	Female	20	93.55	11.63		
5/5	Male	81	76.38	10.00	1.25	0.215
	Female	20	73.20	11.03		
9/1	Male	81	64.57	11.64	0.97	0.335
	Female	20	61.70	12.72		
1/9	Male	81	66.51	13.29	-1.80	0.075
	Female	20	72.50	13.63		
1/1	Male	81	36.20	12.04	-0.58	0.562
	Female	20	37.90	10.22		

Note. TTP = Two-Tailed Probability. 9/9 = collaborative (AAA), 5/5 = strategic (AA), 9/1 = directive (A), 1/9 = supportive (BB), 1/1 = bureaucratic (b). N = 101. Df = 99, $p > .05$ is significant.

leaders. The null hypothesis was retained in all the five leadership styles.

As F-value approached significant levels in the 9/1 style, the least significant difference test was completed for all pairwise comparisons among means to determine whether any pair of the group means differed at the .05 significance level. The results also revealed no significant difference in means between the groups

Table 17

One-Way Analysis of Variance of Leadership Styles of Senior Administrators of Public Universities in Texas With Regard to Current Title

Leadership Style	Raw Score Mean Based on Current Title of the Senior Administrators						F-Value	p-Value
	Chancellors (N = 1)	Presidents (N = 16)	VP (N = 84)	Deans (N = 0)	Mean	SD		
9/9--collaborative (AAA)	75.00	93.13	88.67	0.00	85.60	10.66	1.641	0.199
5/5--strategic (AA)	77.00	75.56	76.17	0.00	76.24	9.92	0.386	0.681
9/1--directive (A)	64.00	63.85	64.07	0.00	63.97	11.91	0.003	1.000
1/9--supportive (BB)	52.00	63.96	68.85	0.00	61.60	11.21	1.447	0.241
1/1--bureaucratic (B)	40.00	32.85	37.22	0.00	36.69	9.79	1.095	0.339

Note. VP = vice-president. Df = 3, 97; p > .05 is significant.

indicating that official title had no effect on administrators' choice of leadership style.

Subhypothesis 4

There will be no significant difference in administrative leadership styles based on the number of years in their present position as senior administrators. The data on the number of years that senior administrators had spent in their present positions were analyzed using a one-way analysis of variance to determine if this was a factor in administrators' selection of leadership styles. As indicated in Table 18, there was a significant difference at the .04 level for one dependent variable, the 9/1 style. The null hypothesis was retained in all leadership styles except the 9/1 style.

The least significant difference test was completed for all pairwise comparisons among means to determine which group means differed. The results are presented in Table 19.

As indicated in Table 19, differences were evident in means at the .04 significance level between group 1 and groups 2 and 3 in administrators' preference for the 9/1 style. Leaders who had been in their present position for 1

Table 18

One-Way Analysis of Variance of Leadership Styles of Senior Administrators of Public Universities in Texas With Regard to Number of Years in Present Position

Leadership Style	Raw Score Mean Based on Number of Years in Present Position					F-Value	p-Value	
	0-1 (N = 11)	2-5 (N = 44)	6-9 (N = 25)	10+ (N = 21)	Mean			SD
9/9--collaborative (AAA)	85.47	89.40	89.90	92.23	89.25	10.59	0.517	0.671
5/5--strategic (AA)	76.06	75.98	75.33	75.08	75.61	9.92	0.232	0.874
9/1--directive (A)	72.75	64.01	61.97	63.88	65.65	11.05	2.870	0.040
1/9--supportive (BB)	65.58	68.47	70.67	65.65	67.59	13.72	0.514	0.674
1/1--bureaucratic (B)	34.61	36.94	37.93	33.92	35.85	11.40	0.647	0.587

Note. Df = 3, 97; p > .05 is significant.

Table 19

Least Significant Difference Tests for Differences in Means for the 9/1 Leadership Style of Senior Administrators of Public Universities in Texas With Regard to Number of Years in Present Position

Category	Years in Present Position	N	Mean	Groups			
				1	2	3	4
1	0-1 year	11	72.73		*	*	*
2	2-5 years	44	64.30				
3	6-9 years	25	60.72				
4	10 or more years	21	62.71				

*Denotes pairs of groups significantly different at the .05 level.

year or less reported a higher preference for the 9/1 style than administrators who had spent from 2 to 10 years in their present position.

Subhypothesis 5

There will be no significant difference in administrative leadership styles based on the number of years in their present institutions as a senior administrator. The number of years administrators had been at their respective institutions was considered to determine if this was a factor in their choice of leadership style. The data were analyzed using a one-way analysis of variance

and are summarized in Table 20. The raw mean scores, the overall mean, standard deviation, F -value, and probability values for each leadership style are presented in Table 20. No significant differences were found at the .05 confidence level in any of the leadership styles. The null hypothesis was therefore retained in all the dependent variables.

Subhypothesis 6

There will be no significant difference in the administrative leadership styles based on the number of years of experience as senior administrators. To determine whether administrators' number of years in administration was a factor in their selection of leadership styles, this hypothesis was tested using a one-way analysis of variance with a .05 level of significance. The data were tabulated and are presented in Table 21.

The mean and standard deviation for each dependent variable are shown in Table 21. F -values and probability values are also indicated. The null hypothesis was retained for all leadership styles except the 9/9 and 9/1 styles. A significant difference at the .001 confidence level was found for the 9/9 and 9/1 styles.

The least significant difference test was calculated to determine which group means differed significantly from the others. As indicated in Table 22, there were

Table 20

One-Way Analysis of Variance of Leadership Styles of Senior Administrators of Public Universities in Texas With Regard to Number of Years at Present Institution

Leadership Style	Raw Score Mean Based on Number of Years at Present Institution					F- Value	p- Value	
	0-1 (N = 4)	2-5 (N = 24)	6-9 (N = 19)	10+ (N = 54)	Mean			SD
9/9--collaborative (AAA)	86.25	89.50	87.63	89.76	89.16	11.62	0.242	0.867
5/5--strategic (AA)	79.75	75.71	78.16	74.63	75.75	10.23	0.765	0.517
9/1--directive (A)	69.50	65.83	62.42	63.33	64.00	11.85	0.641	0.591
1/9--supportive (BB)	67.50	63.96	70.21	88.48	67.69	13.50	0.891	0.449
1/1--bureaucratic (B)	40.25	34.71	38.89	36.24	36.54	11.68	0.594	0.621

Note. Df = 3, 97; p > .05 is significant.

Table 21

One-Way Analysis of Variance of Leadership Styles of Senior Administrators of Public Universities in Texas With Regard to Number of Years in Administration

Leadership Style	Raw Score Mean Based on Number of Years in Administration				Mean	SD	F-Value	p-Value
	0-1 (N = 1)	2-5 (N = 12)	6-9 (N = 8)	10+ (N = 80)				
9/9--collaborative (AAA)	81.00	78.70	93.28	88.25	85.31	6.46	6.167	0.001
5/5--strategic (AA)	77.00	76.63	71.64	75.73	75.25	6.30	0.338	0.798
9/1--directive (A)	74.00	72.83	50.11	63.95	65.23	6.63	6.118	0.001
1/9--supportive (BB)	62.00	67.57	69.11	67.79	66.62	8.20	0.226	0.878
1/1--bureaucratic (B)	45.00	38.80	33.64	37.08	38.63	5.97	1.176	0.323

Note. Df = 3, 97; p > .05 is significant.

Table 22

Least Significant Difference Tests for Differences in Means for the 9/9 Leadership Style of Senior Administrators of Public Universities in Texas With Regard to Years in Administration

Category	Administration Groups	N	Mean	Groups			
				1	2	3	4
1	0-1 year	1	81.00				
2	2-5 years	12	78.25				
3	6-9 years	8	97.88		*		
4	10 or more years	80	90.03		*		

*Denotes pairs of groups significantly different at the .05 level.

significant differences in means at the .001 confidence level between group 1 and groups 2 and 3 in administrators' selection of the 9/9 style. Senior administrators who had been in administration between 6 and 10 years indicated a higher interest in the 9/9 style than did administrators who had spent between 2 and 5 years in administration.

Information concerning differences in means for the groups of administrators on their choices of the 9/1 leadership styles are presented in Table 23. Group 2 administrators differed significantly at the .001 level of confidence from groups 3 and 4 on their choice of the 9/1 style. Senior administrators who had been in administration

Table 23

Least Significant Difference Tests for Differences in Means for the 9/1 Leadership Style of Senior Administrators of Public Universities in Texas With Regard to Years in Administration

Category	Administration Groups	N	Mean	Groups			
				1	2	3	4
1	0-1 year	1	74.00				
2	2-5 years	12	72.92			*	*
3	6-9 years	8	51.88				
4	10 or more years	80	63.75				

*Denotes pairs of groups significantly different at the .05 level.

between 1 and 5 years and 10 years or more were more purpose-oriented than were leaders who had spent between 6 and 9 years in administration.

Subhypothesis 7

There will be no significant difference in administrative leadership styles of senior administrators based on the number of years of experience as a teacher. The one-way analysis of variance was computed to determine if administrators' number of years in teaching was a factor in their selection of leadership styles. The means, standard deviation, F-value, and probability values of each leadership style are presented in Table 24. Because

Table 24

One-Way Analysis of Variance of Leadership Styles of Senior Administrators of Public Universities in Texas With Regard to Number of Years in Teaching

Leadership Style	Raw Score Mean Based on Number of Years in Teaching					F-Value	p-Value	
	0-1 (N = 31)	2-5 (N = 18)	6-9 (N = 14)	10+ (N = 38)	Mean			SD
9/9--collaborative (AAA)	90.11	86.83	89.90	88.98	88.96	11.11	0.506	0.679
5/5--strategic (AA)	77.08	73.26	77.39	75.94	75.91	9.12	0.377	0.770
9/1--directive (A)	66.64	60.79	67.81	63.10	64.58	11.80	1.194	0.317
1/9--supportive (BB)	67.61	70.43	69.53	65.94	68.38	13.90	0.506	0.679
1/1--bureaucratic (B)	37.91	35.28	32.67	36.28	35.53	11.17	1.001	0.392

Note. Df = 3, 97; p > .05 is significant.

significant differences in means were not evident for any of the leadership styles at the .05 confidence level, this null hypothesis was retained.

Subhypothesis 8

There will be no significant difference in administrative leadership styles of senior administrators based on their highest degree earned. In deciding whether the level of education was a factor in administrators' choices of leadership styles, the data were analyzed using a one-way analysis of variance. The means, standard deviation, F-value, and probability values for each leadership style are shown in Table 25. The null hypothesis was retained for all except the 5/5 leadership style. A significant difference in means at the .05 confidence level was found for the 5/5 leadership style. The least significant difference test for all pairwise comparisons among means was computed to determine the group means that differed significantly from the other groups.

There were differences in means at the .05 significance level between groups 2 and 3, as shown in Table 26. Senior administrators with doctorate degrees indicated a higher preference for the 5/5 leadership style than did administrators with master's degrees (Table 26).

Table 25

One-Way Analysis of Variance of Leadership Styles of Senior Administrators of Public Universities in Texas With Regard to Highest Degree Earned

Leadership Style	Raw Score Mean Based on the Highest Degree Earned					F-Value	p-Value
	Bachelor (N = 31)	Master's (N = 18)	Doctorate (N = 14)	Mean	SD		
9/9---collaborative (AAA)	85.86	89.59	89.24	88.23	9.01	0.029	0.971
5/5---strategic (AA)	74.08	72.18	77.16	74.48	8.91	2.454	0.091
9/1--directive (A)	65.39	64.09	63.72	64.40	11.80	0.132	0.876
1/9--supportive (BB)	57.11	68.75	68.84	64.90	10.36	1.530	0.222
1/1--bureaucratic (B)	39.11	38.38	35.62	37.71	12.25	0.618	0.541

Note. Df = 2, 98; p > .05 is significant.

Table 26

Least Significant Difference Tests for Differences in Means for the 5/5 Leadership Style of Senior Administrators of Public Universities in Texas With Regard to Highest Degree Earned

Category	Degree Groups	N	Mean	Groups		
				1	2	3
1	Bachelor's degree	9	74.56			
2	Master's degree	22	71.77			
3	Doctorate degree	70	77.16		*	

*Denotes pairs of groups significantly different at the .05 level.

Subhypothesis 9

There will be no significant difference in administrative leadership styles based on the number of subordinates reporting directly to the senior administrators. A comparison of the group data was made using a one-way analysis of variance. This computation was made in order to determine whether the number of staff reporting to a senior administrator was a factor in administrators' selection of leadership styles.

The mean, standard deviation, F-value, and probability values for each leadership style are shown in Table 27. The null hypothesis was retained for all the leadership styles. No significant difference at the .05

Table 27

One-Way Analysis of Variance of Leadership Styles of Senior Administrators of Public Universities in Texas With Regard to Number of Staff Reporting Directly to the Administrator

Leadership Style	Raw Score Mean Based on Number of Staff Reporting Directly to the Senior Administrator					F-Value	p-Value	
	0-1 (N = 3)	2-5 (N = 21)	6-9 (N = 41)	10+ (N = 36)	Mean			SD
9/9--collaborative (AAA)	82.00	87.51	90.89	88.79	87.30	10.48	0.722	0.541
5/5--strategic (AA)	76.75	75.34	75.10	76.88	76.02	9.02	0.256	0.857
9/1--directive (A)	65.00	64.81	61.72	65.32	64.21	11.94	0.863	0.463
1/9--supportive (BB)	78.25	68.36	66.13	69.36	70.53	12.18	0.597	0.618
1/1--bureaucratic (B)	34.25	40.49	34.79	36.39	36.49	10.85	1.265	0.291

Note. Df = 3, 97; p > .05 is significant.

confidence level was found for the leadership styles of the senior administrators with regard to the number of staff reporting directly to these administrators.

Subhypothesis 10

There will be no significant difference in administrative leadership styles of senior administrators based on the enrollment of their institution. A factor that could have affected the leadership preferences of senior administrators was the size of the leaders' institutions. Although a question about the size or enrollment of the administrators' institutions was not included on the demographic questionnaire, the 37 institutions in this study were divided into three subgroups: group 1 institutions had student enrollments of 4,999 or less, group 2 institutions had student enrollments from 5,000 to 9,999, and group 3 institutions had enrollments of 10,000 or more. As a result of this classification procedure, 13 institutions were in group 1, 12 institutions were in group 2, and 12 institutions were in group 3. This information was utilized in all necessary computations in this study; therefore, subhypothesis 10 was included. These data were analyzed using a one-way analysis of variance and are presented in Table 28.

Table 28

One-Way Analysis of Variance of Leadership Styles of Senior Administrators of Public Universities in Texas With Regard to Population of the Institution

Leadership Style	Raw Score Mean Based Population of the Institution					F-Value	p-Value
	Up to 4,999 (N = 31)	5,000-9,999 (N = 35)	10,000+ (N = 35)	Mean	SD		
9/9--collaborative (AAA)	90.81	89.34	87.51	89.22	11.67	0.662	0.518
5/5--strategic (AA)	77.87	72.69	76.94	75.83	9.95	2.549	0.083
9/1--directive (A)	65.00	65.20	61.91	64.04	11.72	0.829	0.440
1/9--supportive (BB)	72.39	68.23	63.00	67.87	13.08	4.280	0.017
1/1--bureaucratic (B)	36.10	35.31	38.14	36.52	11.73	0.540	0.585

Note. Df = 2, 98; p > .05 is significant.

The analysis was made in order to determine whether the size of an institution affected the administrators' choices of leadership styles. The raw score mean, the overall mean, standard deviation, F-value, and probability values of each leadership style are provided in Table 28. Significant differences were found at the .05 significant level for the 5/5 leadership style and at the .02 level of confidence for the 1/9 leadership style. Thus, the null hypothesis was retained for all except the 5/5 and 1/9 leadership styles.

In order to determine which group means differed at the .05 level of confidence, the least significant difference test was calculated. The results are shown in Table 29.

Table 29

Least Significant Difference Tests for Differences in Means for the 5/5 Leadership Style of Senior Administrators of Public Universities in Texas With Regard to Population of Institution

Category	Institutional Groups	N	Mean	Groups		
				1	2	3
1	Up to 4,999	31	77.87		*	
2	5,000 to 9,999	35	72.69			
3	10,000 or more	35	76.94			

*Denotes pairs of groups significantly different at the .05 level.

Significant differences in means at the .05 confidence level were found between administrators in group 1 and group 2 institutions in their choice of the 5/5 style. In addition, groups 1 and 3 differed significantly in means at the .02 confidence level (Table 30). Administrators in group 1 indicated the highest preference for people-oriented leadership style.

Table 30

Least Significant Difference Tests for Differences in Means for the 1/9 Leadership Style of Senior Administrators of Public Universities in Texas With Regard to Population of Institution

Category	Institutional Groups	N	Mean	Groups		
				1	2	3
1	Up to 4,999	31	72.39			
2	5,000 to 9,999	35	68.23			
3	10,000 or more	35	63.00	*		

*Denotes pairs of groups significantly different at the .05 level.

Summary

The presentation of tables, descriptive and statistical analysis, interpretation, and results of the data collected from the 101 senior administrators are presented in this chapter. Section one of the chapter

includes the tabulated and summarized responses to the questionnaire in Tables 1 through 30. Explanations of these data were given after each table.

Section two of the chapter contains the results of analysis of the data from the completed survey instruments. The hypothesis and subhypotheses are stated in the null form and analyzed for significance at the .05 confidence level. The corrected chi-square, t-test, one-way analysis of variance, and least significant difference test were used to analyze the data.

CHAPTER 5

SUMMARY, FINDINGS, CONCLUSIONS, DISCUSSION, AND RECOMMENDATIONS

This chapter contains a summary of the study of leadership styles of senior administrators of the 37 public universities in Texas, conclusions and recommendations resulting from a review of related research and literature, and descriptive and statistical analysis of data. The chapter is divided into the following sections: summary of the study, summary of the findings, conclusions, discussion, recommendations, and suggested additional study.

Summary of the Study

The problem of this study was the lack of knowledge about the administrative leadership styles of senior administrators of the 37 public universities in Texas. There were two purposes for the study. The first purpose was to determine the predominant leadership style of the senior administrators with regard to the Leadership Grid Model of Hall and Williams (1986). The second was to investigate the existence of relationships between the leadership styles of the administrators and their age, gender, current position title, years in present position,

years at present institution, years in administration, highest degree earned, years in teaching, number of full-time staff (non-clerical) reporting directly to an administrator, and the population of an institution.

The population of this study was the senior administrators (chancellors, presidents, and vice-presidents) of the 37 public universities in Texas (Appendix A). The administrators were categorized into three groups based on the size of their institutions: group 1 institutions were those with enrollments of 4,999 or less, group 2 institutions were those with enrollments from 5,000 to 9,999, and group 3 institutions were those with enrollments of 10,000 or more.

One hundred and eleven of the 185 senior administrators public universities in the State of Texas were selected to participate in this study. This sample included a 60% representation from each of the three groups of institutions, resulting in 39 leaders in group 1 and 36 leaders in each of groups 2 and 3.

The Styles of Leadership Survey, developed by Hall and Williams (1986) to measure the strength of leadership preference, and a demographic questionnaire were sent to each of the senior administrators. Ninety-one percent of the administrators responded to the survey instruments.

Responses from the demographic questionnaire were tabulated and summarized in Tables 1 through 11. Data from the survey instrument were analyzed with the Statistical Package for the Social Sciences (SPSS/PC+, Advanced Statistics, V2.0, 1988) (SPSS Inc., Marketing Department, 1988) at the .05 significance level using chi-square, t-test, one-way analysis of variance, and the least significant difference test.

Summary of Findings

The findings of the study are organized according to responses to the demographic questionnaire and the survey instrument. Section one represents findings from the descriptive data analysis of administrators' responses to the questionnaire. The second section depicts findings from the statistical analysis of data from administrators' responses to the survey instrument.

Descriptive Data Analysis

The following are the major findings related to demographic data of the 101 senior administrators who completed the questionnaire.

1. Almost one-half (44.6%) of the senior administrators were between 40 and 49 years of age.

2. Over three-fourths (80.2%) of the administrators were males. Male leaders were almost evenly represented in the three enrollment groups of institutions.

3. Over three-fourths (83.2%) of the respondents were vice-presidents. Vice-presidents were almost equally represented in the three enrollment groups of institutions.

4. Almost one-half (43.6%) of the administrators had been in their present positions between 2 and 5 years.

5. Over one-half (53.5%) of the respondents had been at their present institutions for 10 years or more.

6. Almost four-fifths (79.2%) of the administrators had been in administration for 10 years or more.

7. Almost three-fourths (69.3%) of the respondents held a doctorate degree: 22 in enrollment group 1, 22 in enrollment group 2, and 26 in enrollment group 3 institutions.

8. Over one-third (37.6%) of the respondents had spent 10 years or more in teaching.

9. Over one-third (40.6%) of the leaders had between 6 and 9 full-time (non-clerical) staff reporting directly to them. Over one-third (35.6%) had 10 or more staff reporting directly to them. In combined groups, over three-fourths (76.2%) had between 6 and 10 staff members reporting directly to them: 23 in enrollment group 1, 28 in enrollment group 2, and 26 in enrollment group 3.

10. The most predominant leadership style selected by the leaders was 9/9: collaborate (AAA) style. Almost three-fourths (74.3%) of the leaders selected the 9/9 style as their first choice of leadership behavior: 21 in enrollment group 1, 28 in enrollment group 2, and 26 in enrollment group 3.

Statistical Data Analysis

The following is a summary of major findings regarding the 101 administrators who responded to the leadership survey instrument. Findings are arranged according to the hypotheses of this study.

Major hypothesis: There was a significant difference at the .017 level in the collaborative leadership style with regard to the predominant leadership style of the senior administrators.

Subhypothesis 1: There was a significant difference at the .003 level in the choice of the collaborative leadership style with regard to the age of the administrators. There was a significant difference at the .002 level in the preference for the directive leadership style with regard to the age of the leaders.

Subhypothesis 2. There was no significant difference at the .05 level between the male and female administrators in their choices of leadership styles.

Subhypothesis 3: There was no significant difference at the .05 level in the choice of leadership style with regard to administrative level with the institution.

Subhypothesis 4: There was a significant difference at the .05 level in the choice of the directive leadership style with regard to administrators' number of years in present position.

Subhypothesis 5: There was no significant difference at the .05 level in choice of leadership style with regard to number of years in present institution.

Subhypothesis 6: There was a significant difference at the .001 level in administrators' selection of leadership styles with regard to the number of years in administration. There was a significant difference at the .001 level in administrators' choices of the directive leadership style with regard to the number of years in administration.

Subhypothesis 7: There was a significant difference at the .05 level between administrators with a master's degree and administrators with a doctorate degree in the preference for the strategic leadership style. Leaders with doctorate degrees indicated a stronger preference for the strategic style.

Subhypothesis 8: There was no significant difference at the .05 level in the choice of leadership style with regard to number of years in teaching.

Subhypothesis 9: There was a significant difference at the .05 confidence level in the choice of the strategic leadership style between administrators in enrollment group 1 and enrollment group 2 institutions. The administrators in group 1 institutions indicated a greater preference for the directive leadership style than administrators in group 2.

Subhypothesis 10: There was a significant difference at the .02 level in the preference for the supportive leadership between leaders in enrollment group 1 and enrollment group 3 institutions. Leaders in group 1, again, indicated a higher weighted choice of the supportive leadership style than their counterparts in group 3 institutions.

In summary, analysis of the data at the .05 level of significance revealed that administrative level, the length of service at a particular institution, past experience in teaching, gender, and the number of staff reporting directly to an administrator were not statistically significant factors in the administrators' choices of leadership styles.

Age, years in present position, years in administration, educational level, and the size of their institutions significantly affected senior administrators' preferences for leadership style at the .05 level of significance.

Conclusions

The following conclusions are drawn from the treatment and analysis of data from responses of the 101 senior administrators who completed both the demographic questionnaire and the styles of leadership survey instruments. Conclusions are arranged according to the five categories of leadership styles.

Collaborative (AAA) Leadership Style (9/9)

Administrators in all three sizes of institutions were indifferent in their choice of the collaborative leadership style. The collaborative style was the predominant leadership style for the respondents in this study.

The administrators' number of years in administration was a factor in their choice of leadership styles. Leaders who had been in administration from 6 to 9 years preferred the collaborative style more than any other group.

Strategic (AA) Leadership Style (5/5)

Administrators whose highest degree earned was a doctorate degree disagreed with the other groups of administrators on their preference for leadership styles. Leaders with doctorate degrees preferred the strategic style more frequently than did the other administrators.

Directive (A) Leadership Style (9/1)

The administrators differed according to age in their choice of the directive leadership style. The youngest administrators reported a higher preference for the directive leadership style than all other groups of administrators.

Administrators who had served in their position for 1 year or less disagreed with other leaders in their choice of the directive style. Younger administrators exhibited a stronger inclination to the directive style of leadership than all other leaders.

Supportive (BB) Leadership Style (1/9)

Administrators in smaller institutions (group 1) disagreed with their counterparts in larger institutions (groups 2 and 3) regarding their choices of leadership styles. Administrators in smaller institutions reported a higher preference for the supportive leadership style.

Bureaucratic (B) Leadership Style (1/1)

None of the groups of leaders designated themselves or labeled themselves as bureaucratic leaders.

Additional Conclusions

1. There was an agreement between male and female administrators in their choice of leadership styles.

2. Administrative title was equally important for all the leaders in their choice of leadership styles.

3. The number of years at their present institutions was not a consideration in the choice of leadership styles by the senior administrators.

4. Teaching experience was equally important in leaders' choices of leadership styles.

5. The number of staff reporting directly to administrators was of equal importance to all the leaders in their choice of leadership styles.

Discussion

Analysis of data from this study support the findings and conclusions from some literature and research studies previously described in earlier chapters and did not support the findings of others. Many studies on the leadership behavior of administrators and/or executives were described in Chapters 1 and 2. Hall and Williams (1986) reported that leadership style differences differed as a function of age, number of people supervised, administrative level or rank, and organization (institutional) type. Hall and Poyner (1975) found that age, the number of people supervised, and management level, were significantly associated with reliance on leadership styles. Hawker and Cole (1981) pointed out that age was correlated to the supportive and

bureaucratic leadership styles at the .05 significance level, but found no correlation between gender and preference for leadership styles. Day and Stogdill (1974) supported these findings, and further found that male and female supervisors who occupied parallel positions and performed similar functions exhibited similar patterns of leadership behavior and levels of effectiveness. In contrast, Kadushin (1974) observed that the largest percentage of supervisory personnel in his study had a higher level of education, but concluded that age was unrelated to the preferred style of supervision.

Some of the findings and conclusions of this study supported the findings of Hall and Williams (1986). A closer look at the analysis of responses from the administrators on the styles of leadership survey reveal that age, years in present position, years in administration, highest degree earned, and enrollment size of the institution were significantly related to the leadership styles preferred by administrators.

The research of Hall and Williams (1986), Hall and Poyner (1975), Hawker and Cole (1981), Kadushin (1974), and Day and Stogdill (1974) is supported by the conclusion of this study that gender was not significantly related to leadership style. Hall and Williams' (1986) conclusions were from normalized-standardized scores based on the data

of 2,844 leaders from education, civic, business, industry, government, and service organizations.

Recommendations

Based on the findings and conclusions of this study, the following recommendations should be considered:

1. The establishment of leadership training programs for leaders in higher education should include emphasis on leadership styles such as those in the instrument used for this study in order to create an awareness of leadership styles and facilitate interpersonal relationship.

2. The Styles of Leadership Survey should be administered to candidates before they are hired by institutions of higher education in order to determine their dominant leadership styles [candidates who score highest in the 9/9 collaborative (AAA) leadership style should be considered first for employment].

3. There is significant evidence that leadership styles differ as a function of age, length of employment in present position, years in administration or supervision, and the highest degree earned. Therefore, these factors may be considered as indicators of dominant leadership style in the selection process when dominant leadership styles have not been identified.

4. Factors not established as indicators of dominant leadership style should not be considered in the selection process.

5. Institutions of higher education should encourage faculty and students to find opportunities to develop administrative leadership skills and should encourage continued growth in leadership skills through professional organizations, seminars and workshops, and meetings with colleagues.

6. Continuous evaluation of the Styles of Leadership Survey should be conducted by the manufacturer (Teleometrics International) in order to improve its reliability and validity as a learning and assessment instrument for identification of leadership styles.

Suggested Additional Study

Additional study is recommended with regard to the purposes, findings, and conclusions of this study.

1. Further study should be conducted to determine the influence of the awareness of leadership styles on administrative success and effectiveness as defined by faculty, students, and other constituencies.

2. A study should be conducted to explore the relationship of each of the four component leadership variables of philosophy, planning, implementation, and

evaluation to the overall leadership style of an administrator.

3. A replication of this study should be conducted on an on-going basis to contribute to the development of leadership resources for higher education administrators.

4. A replication of this study should be conducted with more demographic and institutional variables in order to identify other possible variables that may affect administrators' choice of leadership styles.

5. A study with an alternative instrument should be conducted to identify leadership styles as a means of validating the findings of this study.

6. A study should be conducted to compare organizational effectiveness with leadership style in order to identify goals, objectives, and activities and to provide leadership in research, development, and implementation of programs for administrators in higher education.

7. A replication of this study should be conducted with senior administrators of private universities in Texas.

8. Continued research should be conducted into leadership styles in institutions of higher education.

APPENDIX A
DIVISION OF PUBLIC UNIVERSITIES
IN TEXAS FOR STUDY

Division of Public Universities in Texas for Study

1. Institutions with a student population up to 4,999.
 1. Corpus Christi State University
 2. East Texas State University at Texarkana
 3. Lamar University at Orange
 4. Lamar University at Port Arthur
 5. Laredo State University
 6. Midwestern State University
 7. Pan American University at Brownsville
 8. Sul Ross State University
 9. Texas A & M at Galveston
 10. The University of Texas at Permian Basin
 11. The University of Texas at Tyler
 12. University of Houston--Victoria
 13. Uvalde Study Center
2. Institutions with a student population of 5,000 to 9,999.
 1. Angelo State University
 2. East Texas State University at Commerce
 3. Pan American University at Edinburg
 4. Prairie View A & M University
 5. Tarleton State University
 6. Texas A & I University
 7. Texas Southern University
 8. Texas Woman's University
 9. The University of Texas at Dallas
 10. University of Houston - Clear Lake
 11. University of Houston - Downtown
 12. West Texas State University
3. Institutions with a student population of 10,000 or over.
 1. Lamar University at Beaumont
 2. Sam Houston State University
 3. Southwest Texas State
 4. Stephen F. Austin State
 5. Texas A & M University
 6. Texas Tech University
 7. The University of Texas at Arlington
 8. The University of Texas at Austin
 9. The University of Texas at El Paso
 10. The University of Texas at San Antonio
 11. The University of Texas at Houston
 12. University of North Texas

PUBLIC SENIOR COLLEGES AND UNIVERSITIES

Public Senior Colleges and Universities

1. Anglo State University
2. Corpus Christi State University
3. East Texas State University
4. East Texas State University Center at Texarkana
5. Lamar University at Beaumont
6. Lamar University at Orange
7. Lamar University at Port Arthur
8. Laredo State University
9. Midwestern State University
10. Pan American University
11. Pan American University at Brownsville
12. Prairie View A&M University
13. Sam Houston State University
14. Southwest Texas State University
15. Stephen F. Austin State University
16. Sul Ross State University
17. Tarleton State University
18. Texas A&I University
19. Texas A&M University
20. Texas A&M University at Galveston
21. Texas Southern University
22. Texas Tech University
23. Texas Woman's University
24. University of Houston-Clear Lake
25. University of Houston-Downtown
26. University of Houston-University Park

San Angelo
Corpus Christi
Commerce
Texarkana

Beaumont
Orange
Port Arthur
Laredo
Wichita Falls
Edinburg
Brownsville

Prairie View
Huntsville
San Marcos
Nacogdoches
Alpine
Stephenville
Kingsville
College Station
Galveston
Houston
Lubbock
Denton
Houston
Houston
Houston

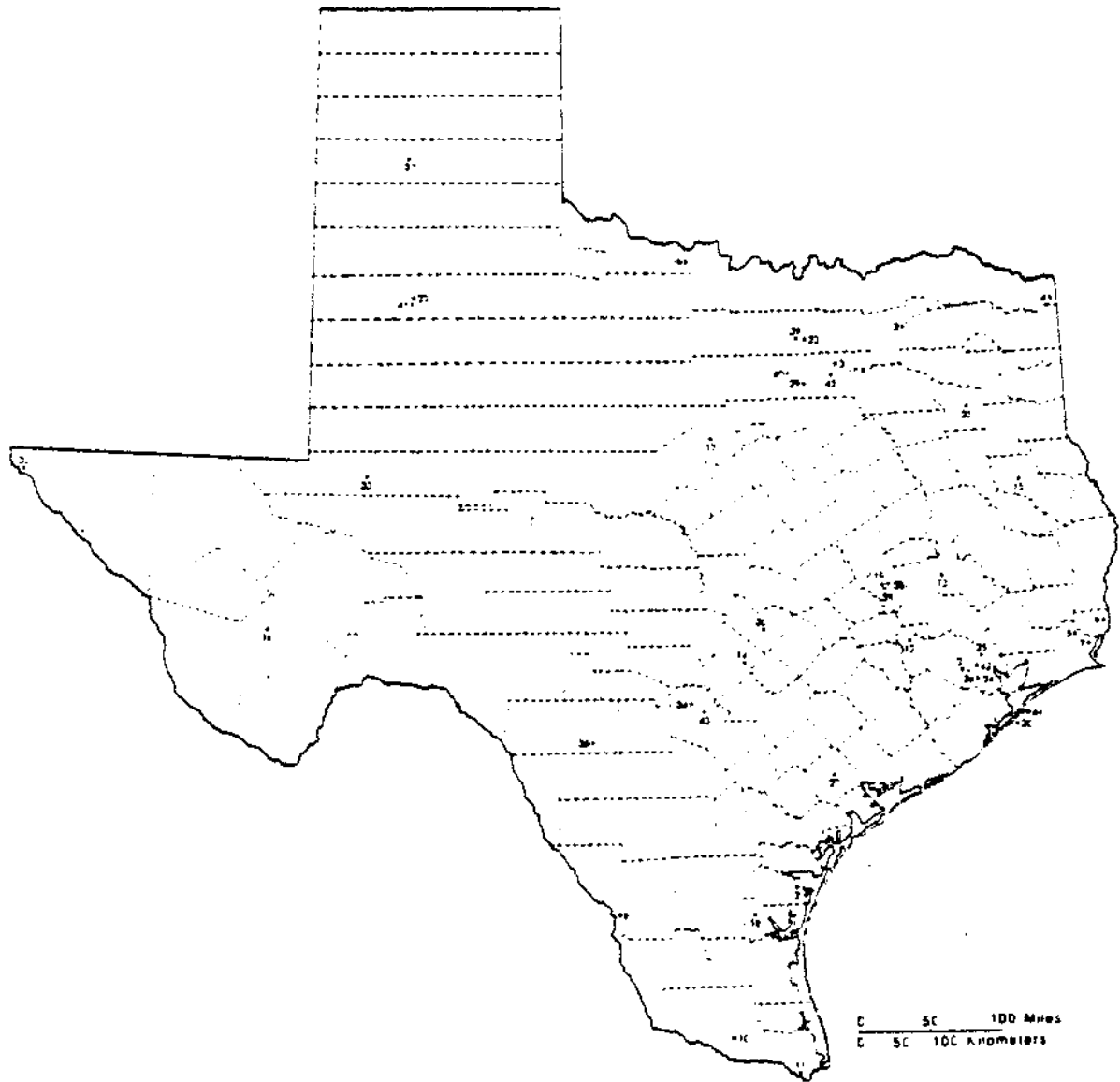
27. University of Houston-Victoria
28. University of North Texas
29. University of Texas at Arlington
30. University of Texas at Austin
31. University of Texas at Dallas
32. University of Texas at El Paso
33. University of Texas of the Permian Basin
34. University of Texas at San Antonio
35. University of Texas at Tyler
36. Uvalde Study Center
37. West Texas State University

Victoria
Denton
Arlington
Austin
Richardson
El Paso
Odessa
San Antonio
Tyler
Uvalde
Canyon

Public Medical Schools and Health Science Centers

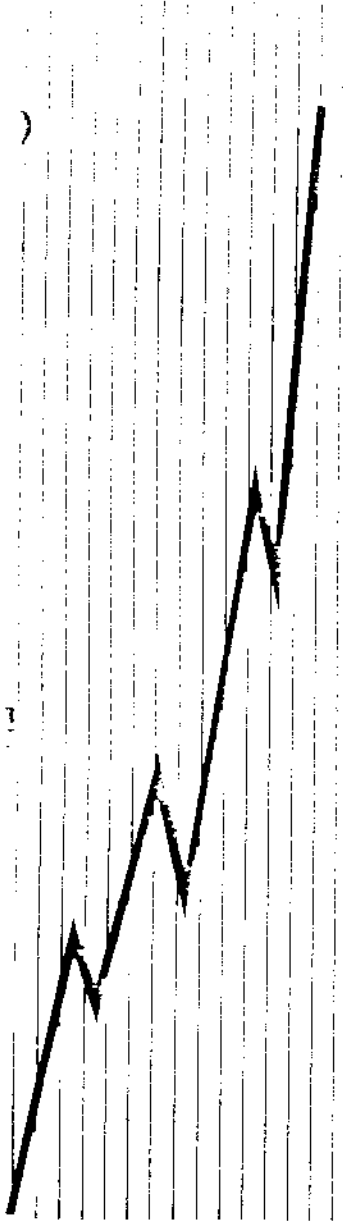
38. Texas A&M University College of Medicine
39. Texas A&M College of Veterinary Medicine
40. Texas College of Osteopathic Medicine
41. Texas Tech University Health Sciences Center
42. University of Texas Health Science Center at Houston
43. University of Texas Health Science Center at San Antonio
44. University of Texas Medical Branch at Galveston
45. University of Texas Southwestern Medical Center at Dallas

College Station
College Station
Fort Worth
Lubbock
Houston
San Antonio
Galveston
Dallas



PUBLIC SENIOR COLLEGES AND UNIVERSITIES

APPENDIX B
THE STYLES OF LEADERSHIP SURVEY



STYLES OF LEADERSHIP SURVEY

BY
JAY HALL, PH.D.
MARTHA S. WILLIAMS, PH.D.

TELEOMETRICS INTERNATIONAL
DEDICATED TO HELPING YOU MAKE A DIFFERENCE

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Styles of Leadership Survey

Please Read Carefully: The purpose of this survey is to provide you with information about the way you lead — or would lead — under a variety of conditions. A wide range of leadership situations is covered in order to provide you with meaningful information about yourself.

Instructions: This survey contains a total of 60 leadership alternatives presented five at a time under each of twelve different situations. As you consider each situation, please read all five alternatives presented and select the alternative that is *most* characteristic of you. Enter the letter which represents that alternative on the scale at a point which indicates how characteristic that alternative is of what you would do or feel.

Next, select the alternative that is *least* characteristic of you and enter that letter at the appropriate place on the scale. Once letters representing what is *most* and *least* characteristic of you have been entered, place the remaining three letters on the scale according to how characteristic each of those is of you.

For example, you might answer as follows for a set of five alternatives:

Completely Characteristic : b : c : d : e : f : g : h : i : j : k : l : m : n : o : p : q : r : s : t : u : v : w : x : y : z : Completely Uncharacteristic

10 9 8 7 6 5 4 3 2 1

On a survey like this there are no right or wrong answers. Instead, the *best* response to each situation is to arrange the five alternatives in the way that is most representative of you. Remember that the purpose of this instrument is to provide you with data about yourself, so answer as you think you would do, not as you think you should.

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I. **Concerning a philosophy of leadership:** The opinions and attitudes held, and the assumptions a person makes, regarding the accomplishment of goals through others are reflections of that individual's leadership "philosophy." This personal philosophy is not only an index of the way that person leads but the degree of success the individual is likely to achieve as a leader. Below are listed some areas of philosophic concern to leaders

A. **Most leaders recognize the fact that a variety of goals or needs — both individual and organizational — operate in the average work situation. In general, how do you view the relative importance of these?**

- a. I feel that I can best insure a smooth running organization by first attending to the needs of the members and providing the conditions for high morale
- b. I feel that, while the needs of both individual members and the organization are important considerations, in the final analysis the needs of the organization should prevail.
- c. I feel that the needs of the organization come first and that members are obligated to sacrifice their personal goals, when necessary, in order to maintain a high quality of performance.
- d. I feel that the needs of both individual members and the organization are equally important in determining the quality of organizational performance and that neither can be sacrificed if optimal results are to be obtained.
- e. I feel that the tasks of the organization are dictated primarily by organizational charters and that the individual member — regardless of rank or needs — can do little to alter them significantly.

Completely Characteristic : 10 9 8 7 6 5 4 3 2 1 : Completely Uncharacteristic

B. **The leader's job is to accomplish work through people. What relationship between leaders and other members do you feel to be the most effective for accomplishing this?**

- a. I feel that the best relationship is one in which the leader plans and directs the work of the members and the members implement these plans and directions in a reasonable period of time
- b. I feel that the best relationship is one in which the leader and members work together in meeting organizational goals and individual needs for job satisfaction.
- c. I feel that the best relationship is one characterized by autonomy in the work situation and minimal contact between the leader and other members.
- d. I feel the best relationship is one in which both the leader and the members are willing to "give a little and take a little" when necessary to get the job done.
- e. I feel that the best relationship is one in which the leader ultimately places emphasis on the morale and well-being of other members rather than on the requirements of the job.

Completely Characteristic : 10 9 8 7 6 5 4 3 2 1 : Completely Uncharacteristic

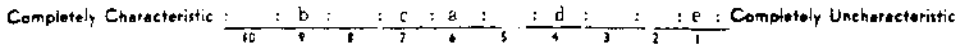
C. **Evaluation of organizational effectiveness is the leader's way of isolating areas needing improvement and of determining how well his or her group has achieved its goals. The way in which evaluation is handled often affects both planning and implementation functions for attaining future objectives. How do you feel the evaluation function should be handled?**

- a. I feel evaluation should be used to stimulate interest, develop high morale, and provide for individual growth within the organization and, therefore, I should encourage members to make their own evaluations of the way in which the organization is functioning.
- b. I feel that evaluations should be treated as a shared responsibility and, therefore, the members and I should meet together to critique, evaluate, and plan improvements in the functioning of the organization.
- c. I feel that, on the basis of reports, comparisons with the performance of others and my knowledge of the various task requirements, I should personally evaluate each member's performance and determine the areas in which improvements are needed
- d. I feel that in order to place the responsibility for evaluating organizational effectiveness where it may best be used, I should pass on to the other members any evaluative comments and suggestions for improvement made to me by "V.I.P.'s" from our own and other organizations.
- e. I feel that, after consulting with the other members individually, I should make an overall report and then meet with them in order to encourage improvement in the areas I have decided require it.

Completely Characteristic : 10 9 8 7 6 5 4 3 2 1 : Completely Uncharacteristic

Instructions for Scoring Your Styles of Leadership Survey

To score the survey, you are asked to go back through it — taking one leadership situation at a time — to find the *scale value* for the letter designating each alternative. This scale value is your score for each item. For example:



The scale value "6" is the score for alternative a, "9" is the score for b, and so on.

Step 1: In the spaces below, post the *scale value* number you selected for each of the five alternative letters under each situation. Letter designations for the alternatives are not arranged in alphabetical order on the form below, therefore, please be careful to place each number in its correct space.

Scoring Form

		①	②	③	④	⑤
I. Philosophy	A.	d. _____	b. _____	c. _____	a. _____	e. _____
	B.	b. _____	d. _____	a. _____	e. _____	c. _____
	C.	b. _____	e. _____	c. _____	a. _____	d. _____
	Subtotal	()	()	()	()	()
II. Planning and Goal Setting	A.	c. _____	a. _____	d. _____	b. _____	e. _____
	B.	d. _____	c. _____	a. _____	b. _____	e. _____
	C.	d. _____	b. _____	c. _____	a. _____	e. _____
	Subtotal	()	()	()	()	()
III. Implementation	A.	b. _____	a. _____	e. _____	c. _____	d. _____
	B.	c. _____	b. _____	a. _____	e. _____	d. _____
	C.	b. _____	a. _____	e. _____	c. _____	d. _____
	Subtotal	()	()	()	()	()
IV. Performance Evaluation	A.	e. _____	d. _____	a. _____	b. _____	c. _____
	B.	b. _____	a. _____	d. _____	c. _____	e. _____
	C.	d. _____	e. _____	a. _____	b. _____	c. _____
	Subtotal	()	()	()	()	()
TOTALS		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		①	②	③	④	⑤

Step 2: When all scale values have been entered, compute four subtotals in each column (①, ②, etc.) for each component of leadership (philosophy, planning, etc.) First, total the three numbers you have entered under "①" to the right of "I. Philosophy." The sum of those three numbers is entered in the parentheses below them and slightly to their right labelled "Subtotal." Do the same for the three numbers under ②, those under ③ and so on. Repeat this step for Roman Numerals II through IV.

Step 3: When all subtotals have been entered, compute the "Totals" by adding the four subtotals in each column and posting their sum in the "Totals" box at the bottom of each column

Step 4: When asked to do so, break the gold seal and turn this page out. Instructions will continue on the far right page.

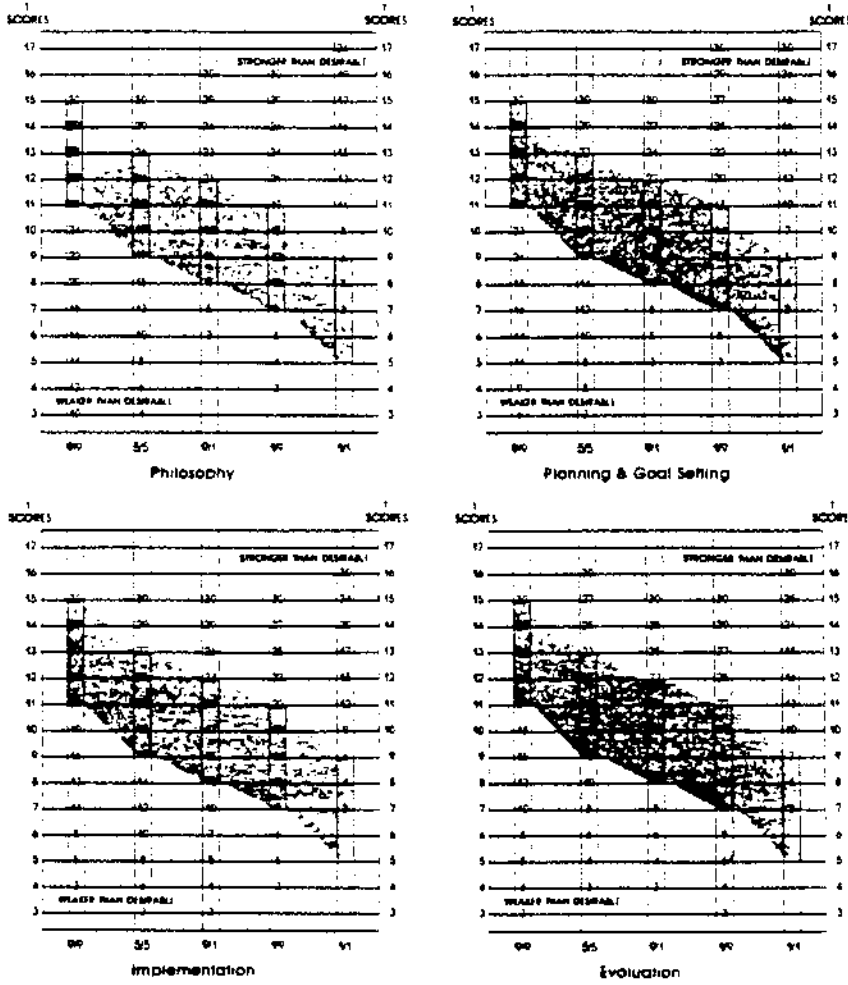
Please do not break the gold seal until asked to do so.

Profile Summary

Total Scores

A Ideal Order			B Your Order			
Style	Raw Score	T-Score	Choice	Style	T-Score	Difference
① = 9/9	_____	_____	1st	_____	_____	_____
② = 5/5	_____	_____	2nd	_____	_____	_____
③ = 9/1	_____	_____	3rd	_____	_____	_____
④ = 1/9	_____	_____	4th	_____	_____	_____
⑤ = 1/1	_____	_____	5th	_____	_____	_____

Component Scores



APPENDIX C
ADMINISTRATIVE LEADERSHIP DATA SHEET

Administrative Leadership Data Sheet

Please check () or complete the blanks below as they apply to you.

1. Age:

1. () Below 30	4. () 50 - 59
2. () 30 - 39	5. () 60 or over
3. () 40 - 49	

2. Gender:

1. () Male	
2. () Female	

3. Current Position Title:

1. () Chancellor	4. () Vice-President
2. () Vice-Chancellor	5. () Dean of Student Affairs
3. () President	6. () Other (specify)

4. Number of years in present position:

1. () 0 - 1	3. () 6 - 9
2. () 2 - 5	4. () 10 or over (specify)

5. Number of years at present institution:

1. () 0 - 1	3. () 6 - 9
2. () 2 - 5	4. () 10 or over (specify)

6. Total number of years in administration:

1. () 0 - 1	3. () 6 - 9
2. () 2 - 5	4. () 10 or over (specify)

7. Highest degree earned:

1. () Bachelor's	4. () No degree
2. () Master's	5. () Other (specify)
3. () Doctorate	

8. Total number of years in teaching:

1. () 0 - 1	3. () 6 - 9
2. () 2 - 5	4. () 10 or over (specify)

9. Number of full-time professional staff (non-clerical) reporting directly to you.

1. () 0 - 1	3. () 6 - 9
2. () 2 - 5	4. () 10 or over (specify)

APPENDIX D
LETTER OF INTRODUCTION



University of North Texas

Department of Higher and Adult Education
College of Education

January 21, 1991

Dear _____ :

A significant research questionnaire will be sent to you in a few days. You have been randomly selected to participate in a dissertation study in the Department of Higher Education at the University of North Texas, Denton, Texas. The study will identify the leadership styles of the senior administrators in the 37 public universities in Texas, and correlate the leadership styles with some personal and institutional variables.

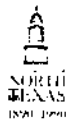
Samuel O. Nwafor, a MHRM Specialist and candidate for the Doctoral Degree in Higher Education will be contacting you in a few days. He will enclose a copy of the project questionnaire, Styles of Leadership Survey, and a demographic data sheet for you to complete. A self-addressed envelope for return mail will also accompany the package. Please do not sign the questionnaire.

This letter serves to advise you of the forthcoming questionnaire, to assure you of our support for this important project, and to thank you in advance for your help.

Sincerely,

Dr. J. P. Eddy
Professor of Higher Education
University of North Texas
Denton, TX 76203
(817) 565-2956

Sam O. Nwafor (DeePaul)
Doctoral Student
Department of Higher Education
University of North Texas
Denton, TX 76203
(817) 387-6858



APPENDIX E
QUESTIONNAIRE LETTER



University of North Texas

Department of Higher and Adult Education
College of Education

March 4, 1991

Dear :

Attached is a questionnaire which is part of my dissertation study at the University of North Texas. The study concerns the leadership styles of the senior administrators of the 37 public universities in Texas. Your response to this survey which takes 20 minutes to complete is critical.

Complete confidentiality will be maintained, and no individual or institution will be referred to in the final dissertation. Nevertheless, identification of the response is necessary in order to ensure the number of returns. After making a notation of those desiring a copy of the abstract, the cover sheet (accompanying this letter) will be removed and destroyed.

Use the enclosed addressed and stamped envelope to return the survey on or before March 21, 1991.

Thank you in advance for your participation.

Sincerely,

J. P. Eddy
Dr. J. P. Eddy
Professor of Higher Education
University of North Texas
Denton, TX 76203
(817) 565-2956

Samuel O. Nwafor
Sam O. Nwafor (DeePaul)
Doctoral Student
P.O. Box 5354, NT Station
University of North Texas
Denton, TX 76203
(817) 387-6858



APPENDIX F
ADMINISTRATIVE LEADERSHIP QUESTIONNAIRE

(Sample Cover Sheet)
Administrative Leadership Questionnaire

Name: _____

Name of Institution: _____

Address of Institution: _____

Would you like to receive a copy of the abstract of the study?

Yes ()

No ()

This cover sheet will be removed and destroyed after recording the receipt of a response from your institution and recording the names and institutions desiring a copy of the abstract.

Thank you.

APPENDIX G
REQUEST FOR STYLE OF LEADERSHIP SURVEY

P.O. Box 5354
University of North Texas
Denton, Texas 76203
October 5, 1990

Susan M. Donnell, Vice President
Teleometric International
1755 Woodstead Court
The Woodlands, Houston, Texas 77380

Dear Ms. Donnell:

Thank you for your positive response by phone regarding the usage of the Style of Leadership Survey developed by Hall and Williams.

Please forward the materials to me. I understand that each copy of the survey costs \$6.95 (excluding \$1.35 for shipping and handling). I am requesting, also, information on test validity and reliability, and any information pertinent to the test's usefulness.

I am sure you sensed the panic in my voice by phone that stresses the fact that time is of essence to me. Any consideration, assistance, and cooperation you can render is highly appreciated.

Again, thank you very much.

Sincerely,

Samuel O. Nwafor (DeePaul)
MHR Specialist
Texas Department of Mental Health
and Mental Retardation
Denton State School
Denton, Texas 76201

APPENDIX H
RESEARCH APPROVALS



University of North Texas

Office of Research Administration

November 19, 1990

Samuel Okechukwu Nwafor
225 West Oak #18
Denton, TX 76203

Dear Dr. Nwafor

Your proposal entitled, "The Study of the Administrative Leadership Styles of the Presidents of the Public Universities in Texas," has been approved and is exempt from further review under 45 CFR 46.101 Exemption Category #3.

If you have any questions, please contact me at 817-565-3946.

Good luck on your project.

Sincerely,

A handwritten signature in cursive script that reads "Peter Witt".

Peter Witt
Chairman
Institutional Review Board

PW/tl



ELEOMETRICS INTERNATIONAL

DEDICATED TO HELPING YOU MAKE A DIFFERENCE

October 11, 1990

Mr. Samuel Nwafor
2225 West Oak #18
Denton, Texas 76201

Dear Mr. Nwafor,

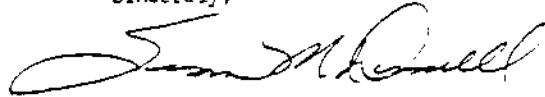
Thank you for inquiring about our **Styles of Leadership Survey**, as a possible research instrument for your dissertation. The copies you ordered and SLS reliability/validity information are enclosed along with a bibliography of studies which have utilized the instrument. Please be aware that the bibliography is complete only to the extent that researchers have let us know about their projects; you will no doubt find a more complete list by making use of APA's computer search service.

The instrument sells for \$6.95 each and, as a graduate student, you are automatically entitled to our 10% educational discount. At times, we grant a special price of \$1.00 per copy; to qualify for consideration you need only submit a draft of your research proposal to us. If the grant is made available to you, we ask that, in return, you send us a copy of your dissertation when it is finished.

Because our instruments are copyrighted and cannot be reproduced in any way, we further ask that, rather than including one in the appendix of your dissertation, you include a copy of the front cover -- front and back with the copyright notice showing -- and 2 or 3 sample questions. This procedure has been acceptable to colleges and universities, as well as University Microfilms, in the past.

We offer best wishes to you for success in your project and hope you will let us know how we might be of service to you.

Sincerely,



Susan M. Donnell
Vice President

SD/lr
Encs.

1755 WOODSTAD COURT - THE WOODLANDS, TEXAS 77380 (713) 367-0063

AMSTERDAM • BRISBANE • CHENNAI • CHICAGO • COLOMBO • DUBLIN • GENEVA • HONG KONG • LONDON • MALDEN • MELBOURNE • PARIS • SAO PAULO • STOCKHOLM • SYDNEY • TAIPEI • TORONTO

APPENDIX I
FOLLOW-UP LETTER



University of North Texas

Department of Higher and Adult Education
College of Education

April 22, 1991

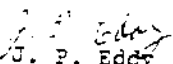
Dear _____ :

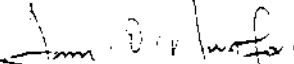
Recently you received a questionnaire concerning the leadership styles of the senior administrators in the 37 public universities in Texas. To date, we have not received your response. We would appreciate it if you would take a few minutes from your schedule to complete and return the questionnaire. If you have not received the materials packet, please contact us so that another may be sent to you.

We consider this to be a significant study, and your response and those of other participants who have already returned their materials packets are essential to its success. If you have already returned the questionnaire, please disregard this letter.

Thank you for your cooperation.

Sincerely,


Dr. J. P. Eddy
Professor of Higher Education
Chairman, Doctoral Committee


Sam C. Nwafor (DeePaul)
Doctoral Student
Study Director



APPENDIX J
FREQUENCY DISTRIBUTION OF THE
SENIOR ADMINISTRATORS BY
ALL VARIABLES

18-Jul-91 SPSS RELEASE 4.0 FOR IBM OS/MVS
 11:27:36 University of North Texas HDS-8083 OS/MVS

For OS/MVS University of North Texas License Number 939
 This software is functional through August 31, 1992

Try the new SPSS Release 4.0 features

- * LOGISTIC REGRESSION procedure
- * EXAMINE procedure to explore data
- * FLIP to transpose data files
- * MATRIX Transformations Language
- * GRAPH interface to SPSS Graphics
- * CATEGORIES Option
- * conjoint analysis
- * correspondence analysis
- * New LISREL and PRELIS Options

See the new SPSS documentation for more information on these new features

```
1 0 DATA LIST FIXED/ AGE 1 GENDER 2 CURPOS 3 YEARS CUR 4 YEARSINS 5
2 0 YEARSADM 6 DEGREE 7 YEARSTCH 8 STAFF 9 POPINS 10 V1 TO V5 11-25
3 0 T1 TO T5 26-35
```

This command will read 1 records from the command file

Variable	Rec	Start	End	Format
AGE	1	1	1	F1 0
GENDER	1	2	2	F1 0
CURPOS	1	3	3	F1 0
YEARS CUR	1	4	4	F1 0
YEARSINS	1	5	5	F1 0
YEARSADM	1	6	6	F1 0
DEGREE	1	7	7	F1 0
YEARSTCH	1	8	8	F1 0
STAFF	1	9	9	F1 0
POPINS	1	10	10	F1 0
V1	1	11	13	F3 0
V2	1	14	16	F3 0
V3	1	17	19	F3 0
V4	1	20	22	F3 0
V5	1	23	25	F3 0
T1	1	26	27	F2 0
T2	1	28	29	F2 0
T3	1	30	31	F2 0
T4	1	32	33	F2 0
T5	1	34	35	F2 0

```
4 0 BEGIN DATA
105 0 END DATA
```

Preceding task required .06 seconds CPU time; .29 seconds elapsed.

```
106 0 VARIABLE LABELS CURPOS 'CURRENT POSITION TITLE'
107 0 YEARS CUR 'NUMBER OF YEARS IN PRESENT POSITION'
108 0 YEARSINS 'NUMBER OF YEARS AT PRESENT INSTITUTION'
109 0 YEARSADM 'NUMBER OF YEARS IN ADMINISTRATION'
110 0 YEARSTCH 'TOTAL NUMBER OF YEARS TEACHING'
111 0 POPINS 'POPULATION OF INSTITUTION'
```

AGE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
30-39	2	6	5.9	5.9	5.9
40-49	3	45	44.6	44.6	50.5
50-59	4	37	36.6	36.6	87.1
60 OR OVER	5	13	12.9	12.9	100.0
	Total	101	100.0	100.0	
Valid cases	101	Missing cases	0		

GENDER

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
MALE	1	81	80.2	80.2	80.2
FEMALE	2	20	19.8	19.8	100.0
	Total	101	100.0	100.0	
Valid cases	101	Missing cases	0		

CURPOS CURRENT POSITION TITLE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
CHANCELLOR	1	1	1.0	1.0	1.0
PRESIDENT	3	16	15.8	15.8	16.8
VICE-PRESIDENT	4	84	83.2	83.2	100.0
	Total	101	100.0	100.0	
Valid cases	101	Missing cases	0		

YEARSJOB NUMBER OF YEARS IN PRESENT POSITION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
0-1	1	11	10.9	10.9	10.9
2-5	2	44	43.6	43.6	54.5
6-9	3	25	24.8	24.8	79.2
OVER 10	4	21	20.8	20.8	100.0
	Total	101	100.0	100.0	
Valid cases	101	Missing cases	0		

YEARSINS NUMBER OF YEARS AT PRESENT INSTITUTION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
0-1	1	4	4.0	4.0	4.0
2-5	2	24	23.8	23.8	27.7
6-9	3	19	18.8	18.8	46.5
OVER 10	4	54	53.5	53.5	100.0
	Total	101	100.0	100.0	
Valid cases	101	Missing cases	0		

YEARSADM NUMBER OF YEARS IN ADMINISTRATION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
0-1	1	1	1.0	1.0	1.0
2-5	2	12	11.9	11.9	12.9
6-9	3	8	7.9	7.9	20.8
OVER 10	4	80	79.2	79.2	100.0
	Total	101	100.0	100.0	
Valid cases	101	Missing cases	0		

DEGREE

Value Label	Value	Frequency	Percent	Valid Percent	Cum. Percent
BACHELOR	1	9	8.9	8.9	8.9
MASTER	2	22	21.8	21.8	30.7
DOCTORATE	3	70	69.3	69.3	100.0
	Total	101	100.0	100.0	
Valid cases	101	Missing cases	0		

YEARSTCH TOTAL NUMBER OF YEARS TEACHING

Value Label	Value	Frequency	Percent	Valid Percent	Cum. Percent
0-1	1	31	30.7	30.7	30.7
2-5	2	18	17.8	17.8	48.5
6-9	3	14	13.9	13.9	62.4
OVER 10	4	38	37.6	37.6	100.0
	Total	101	100.0	100.0	
Valid cases	101	Missing cases	0		

STAFF

Value Label	Value	Frequency	Percent	Valid Percent	Cum. Percent
0-1	1	3	3.0	3.0	3.0
2-5	2	21	20.8	20.8	23.8
6-9	3	41	40.6	40.6	64.4
OVER 10	4	36	35.6	35.6	100.0
	Total	101	100.0	100.0	
Valid cases	101	Missing cases	0		

APPENDIX K
ANALYSIS OF VARIANCE TABLES FOR
SIGNIFICANT HYPOTHESES
(FINDINGS)

----- O N E W A Y

Variable V1
By Variable AGE

ANALYSIS OF VARIANCE

SOURCE	D F	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
BETWEEN GROUPS	3	1790.8964	596.9655	4.9456	.0031
WITHIN GROUPS	97	11708.5689	120.7069		
TOTAL	100	13499.4653			

----- O N E W A Y -

Variable V3
By Variable AGE

ANALYSIS OF VARIANCE

SOURCE	D F	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
BETWEEN GROUPS	3	1976.9862	658.9954	5.2955	.0020
WITHIN GROUPS	97	12071.0138	124.4434		
TOTAL	100	14048.0000			

----- O N E W A Y -

Variable V2
By Variable DEGREE

ANALYSIS OF VARIANCE

SOURCE	D.F	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
BETWEEN GROUPS	2	499.4546	249.7273	2.4539	.0912
WITHIN GROUPS	98	9973.3573	101.7690		
TOTAL	100	10472.8119			

----- O N E W A Y

Variable By Variable	V2 POPINS	POPULATION OF INSTITUTION				
ANALYSIS OF VARIANCE						
SOURCE	D F	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB	
BETWEEN GROUPS	2	517.8994	258.9497	2.5492	.0833	
WITHIN GROUPS	98	9954.9124	101.5807			
TOTAL	100	10472.8119				

----- O N E W A Y -

Variable By Variable	V4 POPINS	POPULATION OF INSTITUTION				
ANALYSIS OF VARIANCE						
SOURCE	D.F.	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.	
BETWEEN GROUPS	2	1463.9589	731.9794	4.2797	.0165	
WITHIN GROUPS	98	16761.5263	171.0360			
TOTAL	100	18225.4851				

----- O N E W A Y -

Variable By Variable	V3 YEARSUR	NUMBER OF YEARS IN PRESENT POSITION				
ANALYSIS OF VARIANCE						
SOURCE	D F	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.	
BETWEEN GROUPS	3	1145.3334	381.7778	2.8701	.0404	
WITHIN GROUPS	97	12902.6666	133.0172			
TOTAL	100	14048.0000				

----- O N E W A Y -----

Variable V1
By Variable YEARSADM NUMBER OF YEARS IN ADMINISTRATION

ANALYSIS OF VARIANCE

SOURCE	D F	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB
BETWEEN GROUPS	3	2162 3903	720 7968	6.1671	.0007
WITHIN GROUPS	97	11337 0750	116.8771		
TOTAL	100	13499 4653			

----- O N E W A Y -----

Variable V3
By Variable YEARSADM NUMBER OF YEARS IN ADMINISTRATION

ANALYSIS OF VARIANCE

SOURCE	D F	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
BETWEEN GROUPS	3	2235.2083	745.0694	6.1181	.0007
WITHIN GROUPS	97	11812.7917	121.7814		
TOTAL	100	14048.0000			

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