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## A Comparison Of Administrative Roles Performed By Public School Superintendents And Chief Executive Officers In Industry In Two California Counties

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A COMPARISON OF ADMINISTRATIVE ROLES PERFORMED  
BY PUBLIC SCHOOL SUPERINTENDENTS AND CHIEF  
EXECUTIVE OFFICERS IN INDUSTRY IN TWO  
CALIFORNIA COUNTIES

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A Dissertation  
Presented to  
the Faculty of the Graduate School  
University of the Pacific

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In Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Education

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by

Lorraine Bassett Scott

May 1981

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May 22, 1981

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A COMPARISON OF ADMINISTRATIVE ROLES PERFORMED  
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Abstract of the Dissertation

Purpose: The purpose of this study was to determine if public school superintendents and chief executive officers in industry spend similar amounts of time in selected roles.

Procedures: Thirty public school superintendents and 30 chief executive officers in industry were randomly selected from Santa Clara and San Mateo Counties in California. Data were collected through a survey process. Thirteen hypotheses were based on the roles and sub-roles described by Mintzberg. The three major roles were: the Interpersonal, the Informational, and the Decisional. The ten sub-roles were: the Figurehead, the Leader, the Liaison, the Nerve Center, the Disseminator, the Spokesman, the Entrepreneur, the Disturbance Handler, the Negotiator, and the Resource Allocator. The respondents were asked to state the percentages of time spent in each area. A one-way analysis of variance was employed to test the hypotheses that no significant differences between the two groups existed in the time spent in the 13 roles. Background information was obtained from the respondents to allow for comparisons between the two groups in the areas of age, sex, salary, length of time in the position, in the organization, and in the industry. The respondents were also requested to rank the sub-roles from most to least important. These rankings were then correlated with the percentages of time spent in each role.

Conclusions: The null hypothesis for the Figurehead role was rejected. The data showed that superintendents spent more time in this role than the chief executive officers. The null hypotheses for the other roles were accepted at the .05 level. The results of the correlations computed between the rankings of the roles and time spent showed that significant correlations existed at the .05 level in six sub-roles: the Figurehead, the Liaison, the Nerve Center, the Disturbance Handler, the Negotiator, and the Resource Allocator.

Recommendations: Further studies could be conducted to validate estimates of time spent in each role and define the specific activities of each role. A study could test the correlations of ranking of roles and time spent in each role by each respondent and comparisons could also be made between the two groups. A study could investigate the personal characteristics of superintendents and chief executive officers to determine if there are commonalities in persons who hold top administrative positions in education and industry. These studies could include investigating behavior differences, management style, educational background, as

well as the dominance of both fields by males. Studies could be conducted to refine size correlates between education and industry and to test size correlates of organizations with background data (age, sex, salary, length of time spent). A study could be made grouping sub-roles by internal and external clusters.

## DEDICATION

This dissertation is dedicated to my sons, Paul and Clay, as a tangible testimony to the love and support we share for each other.

## CONTENTS

|                           | Page |
|---------------------------|------|
| LIST OF TABLES . . . . .  | vii  |
| ACKNOWLEDGMENTS . . . . . | viii |

### Chapter

|   |    |
|---|----|
| 1. INTRODUCTION . . . . .   | 1  |
| Statement of the Problem . . . . .  | 2  |
| Purpose of the Study . . . . .  | 4  |
| Significance of the Study . . . . .   | 4  |
| Research Hypotheses . . . . .   | 5  |
| Definitions of Terms . . . . .  | 6  |
| Overview . . . . .  | 9  |
| 2. REVIEW OF THE LITERATURE . . . . .   | 11 |
| The Universality of<br>Administration . . . . .                                 | 11 |
| Studies Comparing Administration<br>in the Public and Private Sectors . . . . . | 15 |
| Summary . . . . .   | 23 |
| 3. PROCEDURES . . . . .   | 26 |
| Statements of Null Hypotheses . . . . .   | 26 |
| Population and Sample . . . . .   | 29 |
| Instrumentation Used in<br>Gathering Data . . . . .                             | 31 |
| Validity . . . . .  | 31 |
| Reliability . . . . .   | 32 |
| Procedures of Data Collection . . . . .   | 33 |



| Chapter  | Page |
|--|------|
| Procedures for Statistical Analysis . . . . .  | 35   |
| Summary . . . . .  | 35   |
| 4. FINDINGS, CONCLUSIONS, IMPLICATIONS,<br>AND RECOMMENDATIONS FOR FURTHER<br>RESEARCH . . . . . | 36   |
| Presentation of Background<br>Information . . . . .  | 37   |
| Analysis of Data Pertaining<br>to Hypotheses . . . . .   | 45   |
| The Figurehead Sub-Role . . . . .  | 46   |
| The Leader Sub-Role . . . . .  | 48   |
| The Liaison Sub-Role . . . . .   | 49   |
| The Interpersonal Role . . . . .   | 50   |
| The Nerve Center Sub-Role . . . . .  | 51   |
| The Disseminator Sub-Role . . . . .  | 52   |
| The Spokesman Sub-Role . . . . .   | 53   |
| The Informational Role . . . . .   | 55   |
| The Entrepreneur Sub-Role . . . . .  | 56   |
| The Disturbance Handler Sub-Role . . . . .   | 57   |
| The Negotiator Sub-Role . . . . .  | 59   |
| The Resource Allocator Sub-Role . . . . .  | 60   |
| The Decisional Role . . . . .  | 61   |
| Role Demands and Role Importance . . . . .   | 64   |
| Ancillary Questions . . . . .  | 68   |
| Summary of the Study . . . . .   | 71   |
| Implications . . . . .   | 73   |
| Recommendations for<br>Further Research . . . . .  | 76   |

|  | Page |
|--|------|
| BIBLIOGRAPHY . . . . .   | 79   |
| APPENDIXES   |      |
| A. Survey Instrument Used in<br>Data Collection . . . . .                                    | 83   |
| B. Cover Letter to Superintendents . . . . .   | 87   |
| C. Cover Letter to Chief<br>Executive Officers . . . . .                                     | 89   |
| D. Frequencies of Responses on<br>Priority Rankings by<br>Superintendents and CEOs . . . . . | 91   |

## LIST OF TABLES

| Table  | Page |
|--|------|
| 1. Percentages of Responses from Superintendents and CEOs to Background Information Questions on the Survey Instrument . . . . .                               | 44   |
| 2. Percentages of Ranges of Time and Averages of Time Spent in Roles as Reported by Superintendents and Chief Executive Officers . . . . .                     | 63   |
| 3. Degrees of Freedom, Mean Squares, $F$ Ratio, and Significance of $F$ on Hypotheses Tested . . . . .   | 64   |
| 4. Pearson Product Moment Correlations between Perceived Importance of Roles and Time Spent in Roles by Superintendents and Chief Executive Officers . . . . . | 66   |
| 5. Comparison of Rankings of Sub-Roles by Superintendents and CEOs . . . . .   | 69   |

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as for sharing in the joys and anxieties experienced throughout this entire period of study. A particular acknowledgment is expressed to the writer's brother, Dr. Abe Bassett, whose constant support helped guide this dissertation to its completion.

## Chapter 1

### INTRODUCTION

The systematic study of the field of school administration is new to the twentieth century, and, as a result, those interested and involved in this area borrowed ideas and systems from the world of business in which the concepts of administration have existed since ancient times. As the complexities of educational institutions increased, more formal research and study were required of the school administrator to enable him or her to cope with the problems of the school. As school personnel learned to improve their management skills, they often used the ideas of researchers from the field of private industry.<sup>1</sup>

It is evident that there are many similarities between administration in education and industry; for example, educational administrators use much of the language and terminology of business. The field of education has also adopted management and evaluation systems, accountability systems, and collective bargaining from the business field. Because of these and other similarities, questions arose among researchers whether educational administration is sufficiently similar to business administration to require

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<sup>1</sup>Stephen J. Knezevich, Administration of Public Education (3rd ed.; New York: Harper & Row, 1975), p. 4.

the same kinds of training for administrators from both sectors. Some researchers suggested that there were common elements in all administration, especially if viewed as a process.<sup>2</sup>

The increased demands placed upon education for greater efficiency by the public and government agencies have created a changing administrative environment. As school districts develop functions similar to private industry, it would seem likely that they would experience problems common to both.<sup>3</sup> Comparing the time spent in roles by administrators of both fields would, then, be a valuable step in assessing the commonalities between the two fields. Such a comparison was the basis of this study.

#### Statement of the Problem

As the field of school administration has evolved over the past few decades, it has been substantially influenced by business and industry. There are those who believe that positions in education at the highest level are now very similar to the executive positions in business. Some persons, in fact, believe that superintendents can and

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<sup>2</sup>Ibid., p. 11

<sup>3</sup>Erwin Miklos, Training in Common for Educational, Public, and Business Administrators, UCEA Series on Administrative Preparation (Eugene: University of Oregon, University Council for Educational Administration, 1971), pp. 48-50.

should be recruited from industry.<sup>4</sup> The American Association of School Administrators stated that schools are big business and that the public has a right to expect modern management techniques within a school system. It also suggested that an administrator must be competent in business skills as well as being an educator.<sup>5</sup>

A superintendent is called the chief officer of the local school district, which is known variously as a quasi-corporation, quasi-public corporation, municipal corporation, quasi-municipal corporation and corporation.<sup>6</sup> As the school chief communicates with and reacts to other organizations, his or her roles appear very similar to the chief executive officer of private business. A question then arises: Are the roles and responsibilities of the leaders in the education field sufficiently similar to those of the leaders in the business field to support the concept that business leaders can assume top leadership roles in the educational field, and conversely, does it appear that school administrators are equally well equipped to assume similar positions in business?

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<sup>4</sup>Knezevich, op. cit., p. 11.

<sup>5</sup>American Association of School Administrators, Profiles of the Administrative Team (Washington, D.C.: American Association of School Administrators, 1971), pp. 61-75.

<sup>6</sup>Leroy J. Peterson, Richard A. Rossmiller, and Marlin M. Volz, The Law and Public School Operation (New York: Harper & Row, 1978), pp. 88-89.



### Purpose of the Study

The purpose of this study was to examine the similarities and differences of the roles and responsibilities which exist between leaders in business and leaders in education through a comparison of the time devoted to each area of the major roles and sub-roles as established by Mintzberg.<sup>7</sup> More specifically, do educational and business administrators spend similar amounts of time in performing their roles, or does the time spent differ according to the uniqueness of the industry?

### Significance of the Study

It was considered important in this study to determine if school superintendents and chief executive officers (CEO) were spending similar amounts of time in the various roles of their jobs. The comparison of the allocation of time reported by the respondents was a means of determining if the superintendents were performing the same roles and placing the same emphasis on them as the CEO. The specific roles chosen for this study were those established by Mintzberg in his observational study of managers as he sought to determine specifically what managers do.<sup>8</sup>

The data that were gathered may be useful to schools

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<sup>7</sup>Henry Mintzberg, The Nature of Managerial Work (New York: Harper & Row, 1973), pp. 92-93.

<sup>8</sup>Ibid.

of education and business in the development of curricula, and may contribute to the identification of common areas of study. The amount of time that top management personnel spend in specific roles may be useful information in determining areas of emphasis in training programs. If, for example, the data show that school superintendents spend a great deal of their time in the area of budgeting, schools of educational administration could decide to require more course work, or even an internship, in that content area. If the data show that similar amounts of time are spent on any particular roles by both groups of administrators, then schools of education and business could decide to combine certain courses having similar content in order to utilize available resources and to provide opportunities for exchanges of ideas between students and teachers of both schools. Administrators from both fields could be brought together to study management methods common to both.

### Research Hypotheses

The literature suggests that there may be a universality of the administrative process. Researchers who agree with this concept may expect that superintendents and chief executive officers perform similar roles and spend similar amounts of time in them. This study tested the hypotheses that there were no differences between the two groups of administrators in the time spent in the selected roles. The research hypotheses of this study were:

1. There is a significant difference between public school superintendents and chief executive officers of industry in each of the three major roles performed in fulfilling the responsibilities of their job.

2. There is a significant difference between public school superintendents and chief executive officers in each of the ten sub-roles performed in fulfilling the responsibilities of their job.

### Definitions of Terms

The operational definitions of terms used in this study are:

Superintendent. The chief executive officer of a school district as identified by the California Public School Directory, 1980.

Chief Executive Officer. The key administrator or president of each company as identified by the California Manufacturers Register, 1980.

Business and Industry. These terms are used interchangeably in this study to denote organizations in the private sector.

Administration and Management. These terms are used interchangeably in this study to describe the act of operating an organization.

Administrators, Managers, and Executives. These terms are used interchangeably in this study to describe the

key personnel who are responsible for the operation of the organization.

Major Roles. The jobs and activities identified by Mintzberg that are performed by the administrators in fulfilling their responsibilities. The major roles are called the Interpersonal Role, the Informational Role, and the Decisional Role.<sup>9</sup>

The Sub-Roles. There are ten sub-roles identified by Mintzberg that describe the specific activities that managers perform in their jobs. The names of the sub-roles are: the Figurehead, the Leader, the Liaison, the Nerve Center, the Disseminator, the Spokesman, the Entrepreneur, the Disturbance Handler, the Negotiator, and the Resource Allocator.<sup>10</sup>

The Interpersonal Major Role. The sub-roles within this category focus on interpersonal contact and the manager's behavior as related to the authority and status associated with holding managerial office.

The Informational Major Role. A set of managerial activities relating primarily to the processing of information. These managerial roles describe the manager as a focal point for a certain kind of organizational information and the simple transmission of this information.

The Decisional Major Role. The role the manager performs as the key figure in the making and interrelating

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<sup>9</sup> Ibid.

<sup>10</sup> Ibid.

of all significant decisions in the organization. The sub-roles describe the manager's control over the strategy-making system in the organization.

The Figurehead Sub-Role. The manager as the symbol of the organization, presiding at ceremonies, receiving visitors, attending community functions, public relations activities.

The Leader Sub-Role. The manager as he or she relates to subordinates, motivates and encourages them, replies to their requests, issues directives, provides direction.

The Liaison Sub-Role. The manager as he or she interacts with peers and other persons outside the organization, establishes relationships in order to exchange information for use in the organization.

The Nerve Center Sub-Role. In this role, the manager is the center of internal and external information by being connected formally to every member of the organization through the legal authority of the position. He or she also attends conferences and workshops.

The Disseminator Sub-Role. The manager transmits information to the subordinates from outside groups--government agencies, employee groups, general public or parent groups--who wish to make their preferences known to the organization.

The Spokesman Sub-Role. The manager transmits information to outsiders about the organization's

performance, policies and plans, as well as serving as an expert of the industry.

The Entrepreneur Sub-Role. In this role, the manager initiates and assigns much of the controlled change in the organization, delegates or supervises improvement projects--marketing a new product, introducing a new program, strengthening a weak department, building a new structure of the organization.

The Disturbance Handler Sub-Role. In this role, the manager is forced to make corrections because an operating program has broken down or a new one has not become stabilized. This applies to both personnel and technological problems.

The Negotiator Sub-Role. The manager participates directly in negotiating activities with either employee or management groups, consulting with the negotiating representative or attorney; is involved in employee grievances or implementations of an employee contract; attends workshops or training sessions on negotiations.

The Resource Allocator Sub-Role. In this role, the manager controls the allocation of resources which require the manager's authorization of all significant decisions before they are implemented.

### Overview

In Chapter 1, the purpose and significance of this study were discussed. The research hypotheses to be answered

by this investigation were stated and the terms were defined. In Chapter 2 is presented a review of the literature in the field of educational and business administration that is pertinent to the study. In Chapter 3, the methods and procedures used in the study are described. Chapter 3 also includes information on the pilot study, the survey instrument, the population of the study and the data-gathering processes. In Chapter 4 is presented a summary of the study. Also included are the data, conclusions, implications, and recommendations for further research.

## Chapter 2

### REVIEW OF THE LITERATURE

In this chapter is presented a review of the literature pertinent to studies in school and business administration, and particularly those in which comparisons were made between the two groups. The chapter is divided into two major sections: The Universality of Administration and Studies Comparing Administration in the Public and Private Sectors.

#### The Universality of Administration

Whether administration has common elements which are found in all fields has been debated since ancient times and continues to be a question. This was illustrated in the literature with a report that Socrates considered the administrative process to be a universal one as he described management primarily as a social process; that is, he defined management as the successful relations between people. Aristotle was said to have disagreed with this concept. He did not believe that there were universal traits for a good manager.<sup>1</sup> These kinds of vague references to the discussion of administration as a process occurred throughout history

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<sup>1</sup>Knezevich, op. cit., p. 25.



until about 100 years ago, when more scientific methods and reasoning began to evolve.

In the early 1920s, Henri Fayol, a French engineer and author of books about business administration, espoused the idea that there were administrative functions common to all private, public, political and economic organizations. Fayol, in 1916, classified administrative functions with the following set of descriptors: planning, organizing, commanding, coordinating and controlling. Gulick and Urwick, in 1937, made revisions and additions to Fayol's classifications. Their descriptors, known by the acronym, POSDCORB (Planning, Organizing, Staffing, Directing, Coordinating, Reporting, Budgeting), dominated the field for several decades.<sup>2</sup>

In the 1950s, the formal study of public school administration began. Sears identified the major divisions of the school administrative process as planning, organizing, directing, coordinating, and controlling, and found that they were very similar to those of Fayol, Taylor and other writers from the field of business administration.<sup>3</sup>

Researchers from the field of public school administration began to see administration as a process and believe that there were commonalities in that process. Knezevich pointed out that a commonality of administration between organizations becomes more apparent when administration is viewed

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<sup>2</sup>Ibid., p. 26.

<sup>3</sup>Ibid.

as a process:

It is the process, or the cycle and sequence of activities employed to attack specific problems, which suggests that there is a high degree of similarity in the administration of any type of institution. . . . There is considerable merit to the idea that administration is administration, no matter what the institution.<sup>4</sup>

He stated that some educators believe that school administrators should be sought from other fields and not limited to candidates from education.

Leu and Rudman, in looking at the problem of the "science of administration," asked: "Shall the administration of the public schools be conceived as a special field within the larger field of education?"<sup>5</sup> Some of the issues they identified were:

1. Is administrative activity essentially the same in all organizations?
2. Does the purpose of an organization make enough difference on what administration ought to be to require a unique program or preparation and a unique career line for the administrators of the organization?
3. Does the nature of the personnel--their occupational status, the character of their work, their values and orientations--make enough difference to require a unique

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<sup>4</sup>Ibid., p. 11.

<sup>5</sup>Donald J. Leu and Herbert C. Rudman, Preparation Programs for School Administrators: Common and Specialized Learning (East Lansing: Michigan State University, 1963), p. 36.

preparation program and a unique career line?

4. Will the administrators of education be recruited from new sources and proceed through different career routes; for example, undergraduate study, graduate school of administration, junior executive position within an educational program?

They concluded that there were generalities among all professions in administration, as expressed by the administrators reported in their studies. One of those individuals, James D. Thompson, Director of the Administrative Science Center at the University of Pittsburg, stated that it is uneconomical and unnecessary to view executive functions as unique to each field.<sup>6</sup>

Hersey and Blanchard wrote that the functions of an executive are similar, regardless of the type of organization or level of management with which one is concerned. Management was defined by them as "working with and through individuals and groups to accomplish organizational goals."<sup>7</sup>

Koontz and O'Donnell agreed with the concept of universality and stated:

Acting in their managerial capacity, presidents, department heads, foremen, supervisors, college deans, bishops and heads of government agencies all do the same thing. As managers, they are all engaged in part in getting things done with and through all people.

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<sup>6</sup>Ibid., pp. 12-38.

<sup>7</sup>Paul Hersey and Kenneth H. Blanchard, Management of Organizational Behavior (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1972), p. 3.

As a manager, each must, at one time or another, carry out all the duties characteristic of manager.<sup>8</sup>

John Walton, reported in Culbertson and Hencley, believed that administrative activity is essentially the same in all organizations.<sup>9</sup>

The researchers reported in this section of the chapter addressed the concept of administration as a universal science. Some of them recommended combining common elements in training programs. Others recommended further research to determine what types of training programs would best prepare a student for educational administration, based on whether school administration should be conceived of as a specialty within the field of education.

#### Studies Comparing Administration in the Public and Private Sectors

Several dissertation studies completed in the past decade by students of educational administration have compared the roles of administrators of public schools with administrators in private industry. Dorin compared management activities of industrial managers and elementary principals. He concluded that the roles of principals were

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<sup>8</sup>Harold Koontz and Cyril O'Donnell, Principles of Management (4th ed.; New York: McGraw-Hill Book Co., 1968), p. 54.

<sup>9</sup>Jack A. Culbertson and Stephen P. Hencley, eds., Preparing Administrators: New Perspectives (Columbus: University Council for Educational Administration, 1962), p. 96.

very similar to those of the managers.<sup>10</sup> In another research project, Negus found similarities between superintendents and CEOs by comparing personal profiles in areas of salary ranges, age, educational background and other personal data. He concluded that there was a need for greater public awareness of similarities and differences between leaders of education and business.<sup>11</sup> Cherry investigated the similarities and differences in Management Theory by analyzing professional journals in educational administration, public administration, and business administration. She concluded that there were no significant differences in management theory in the three fields that were reflected in the professional literature, but the transferability of management theory from one field to the other was not proved conclusively.<sup>12</sup>

Hayes compared management development programs in education and industry. He solicited responses to a questionnaire from school principals and department heads in

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<sup>10</sup>Patrick C. Dorin, "A Comparison of Management Activities of Middle Management in Industry and Education" (PhD dissertation, University of Minnesota, 1977).

<sup>11</sup>Milton K. Negus, "A Study Comparing the Personal Profiles of School Superintendents and Chief Executive Officers of Business in the Upper Midwest" (EdD dissertation, Montana State University, 1979).

<sup>12</sup>Adelaide K. Cherry, "An Analysis of Selected Professional Journals in Business Administration, Educational Administration, and Public Administration to Determine Differences and Similarities in Management Theory" (PhD dissertation, University of Alabama, 1977).

private industry. The questionnaire sought to produce an analysis of management development programs in education and industry by focusing on the following points:

1. Identification and description of management development programs.
2. Ranking of competencies found in management development programs.
3. Investigation of the components considered essential to a total management development program.
4. Determination of the extent middle managers are involved in identification of areas of content to be included in management development programs.
5. Determination of the extent that management development programs meet the needs of the middle manager.

Hayes concluded that there are similar components included in management development programs in both industry and education, but that there are different levels of skills and/or knowledge within the components. His recommendations included a stated need to improve management development programs with a particular emphasis on meeting the needs and goals of the middle manager in both industry and education. He also suggested that interorganizational programs would be beneficial to both.<sup>13</sup>

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<sup>13</sup>Charles H. Hayes, "Comparison of Management Development Programs in Industry and Education in Cook County, Illinois" (EdD dissertation, Loyola University of Chicago, 1979).

Cobb conducted a research study to determine if a significant relationship existed between three levels of management in public school education and selected levels of management in industry as determined by the nature of the competencies associated with those levels. Cobb used a questionnaire which contained 88 competencies drawn from present practice in the field of management training. The questionnaire obtained evaluation of training needs from principals, deputy superintendents and superintendents from school districts in Texas. A companion study which provided data for industrial managers was used to make comparisons between the two groups to determine if commonalities of training needs existed. Cobb's findings included the following:

1. There is a greater need for training in management-related competencies for school administrators than for industrial personnel.
2. There are more common elements in training needs of industrial managers and school administrators at the upper levels of the organizational hierarchy than at the lower levels.
3. There are different training requirements for the school administrator than for the classroom teacher, and different requirements for the principal than for the central administrator.

Based on the data produced by his study, Cobb presented several recommendations, among which are the

following:

1. Colleges of education should draw on the resources of other colleges and disciplines in formulating content for administrative programs.

2. Courses of study should be developed that include the competencies that are shared in common by the upper level administrators and should be jointly available to students of administration.

3. Consultant firms seeking to establish in-service programs to serve both educational administrators and industrial managers should incorporate those competencies that are shared in common by the school administrator and industrial manager.

4. There should be an increase in the practice of including both school administrators and industrial managers in workshops with joint participation and common content dealing with relevant administrative problems.<sup>14</sup>

Moulette compared certain dimensions of leadership in management personnel in education, industry, and the military. Moulette used the Leadership Questionnaire instrument to obtain scores which he then examined for differences among leaders in vocational education, general education, industry, and the military. The three major

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<sup>14</sup>Gerald D. Cobb, "A Comparison of Administrative Competencies between Public School Administrators and Managers of a Major Industrial Firm" (EdD dissertation, University of Houston, 1974).



leadership dimensions tested were communications, human relations, and leadership style and technique. There were 15 items in each of the three dimensions. It was concluded that there was no statistically significant difference among the occupations in the three leadership dimensions tested, that those dimensions were characteristic of leaders, and that they are important to an individual functioning in a leadership role.<sup>15</sup>

In 1971, Henry Mintzberg, a professor of management at McGill University, reported the findings of an observational study of the work of five chief executives. His goal was to determine exactly what managers do. His method was to observe the chief executives of five medium to large organizations (a consulting firm, a school system, a technology firm, a consumer goods manufacturer, and a hospital). In describing the various components of managerial work, Mintzberg developed terminology to describe the major roles and sub-roles that he observed. He found that the activities performed by the managers could be classified in one or more of three groups: interpersonal contact, decision-making, and the processing of information. He labeled these major roles as the Interpersonal Role, the Informational Role, and the Decisional Role. Within these roles, Mintzberg

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<sup>15</sup>John B. Moulette, "Selected Leadership Dimensions of Management Personnel in Vocational Education, General Education, Industry, and the Military" (EdD dissertation, Rutgers University, 1970).

classified all the activities that he observed being performed by the managers. The sub-roles relating to the Interpersonal Role are named the Figurehead, the Leader, and the Liaison. The sub-roles relating to the Informational Role are called the Nerve Center, the Disseminator, and the Spokesman. The sub-roles relating to the Decisional Role are called the Entrepreneur, the Disturbance Handler, the Resource Allocator, and the Negotiator. According to Mintzberg, these roles described the daily activities that the CEO performed during his observational study.

Mintzberg tried to find answers to certain questions in his study: Is Management a science? Is it a profession? Does it require specialized learning? He concluded that the evidence of his research suggested that there was little science in managerial work. He stated that management could be called a profession to the extent that different managers perform one set of basic roles; but a profession must require "knowledge of some department of learning or science."<sup>16</sup> He felt that schools of administration were not teaching the activities of the executive's job in a specialized way. He recommended further research to help develop a more scientific base of management.<sup>17</sup>

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<sup>16</sup> Henry Mintzberg, "Managerial Work: Analysis from Observation," Management Science, XVIII (October, 1971), B97-B110, cited by Max D. Richards, Readings in Management (Cincinnati: Southwestern Publishing Co., 1978), p. 28.

<sup>17</sup> Ibid., pp. 15-32.

It is the terminology from Mintzberg's study that was used in the survey questionnaire and the hypotheses of this study. It was considered that his descriptors of executive functions were more appropriate than the terms of the researchers of the early twentieth century because they appear to more accurately describe the roles being filled by modern administrators. The descriptors were used in this study to compare time allocations between superintendents and CEOs even though the empirical data gathered by Mintzberg were based on only five subjects. It was considered that the definition of roles and the overlap of activities could possibly be regrouped into new descriptors in a future study that would help refine the instrument.

A recent study by Lau and Pavett used Mintzberg's roles to compare high-level jobs in the private sector and the military sector by examining job content, job characteristics, and required skills, knowledge and abilities. They concluded that managers and executives in the public and private sectors were similar in their descriptions of job content, and that their activities could be classified under Mintzberg's broad roles of the Interpersonal, the Informational, and the Decisional.

They also found that the specific activities of the two groups were similar, but not identical. This was not a surprising finding to them, because they expected that situational differences between the two groups would result in managerial differences. They also found some similarities

between the two groups in job characteristics and the assessments of the required skills, knowledge, and abilities necessary for effective job performance.

Based on the findings of their study, Lau and Pavett recommended that the job activities required at the executive level should be used to assess a candidate's potential for demonstrating those specific skills. They believed that very little academic training has been provided to teach the skills needed for the executive position. They also recommended basing performance-appraisal systems on the identified job requirements. They suggested that the selection of candidates, the development of their skills, and the appraisal of their job performance, could be linked and based on the identified job activities of their study. They suggested that this process could be applicable to both public and private sectors.<sup>18</sup>

### Summary

This chapter presented a review of the literature pertinent to the universality of the administrative process and to comparisons of executive roles in the private and public sectors, particularly those in education and industry. The scientific study of administration began about 100 years

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<sup>18</sup>Alan W. Lau and Cynthia M. Pavett, "The Nature of Managerial Work: A Comparison of Public- and Private-Sector Managers," Group and Organization Studies, V (December, 1980), 453-466.

ago in the field of business. Researchers of business administration in the early 1900s created descriptors of what the functions of the manager's job were considered to be. Scientific research in public school administration began in the 1950s, and researchers found similarities in the descriptors and terminology in education and business. Some researchers began to suggest that there were commonalities in the administrative process.

Some researchers from the field of education reported on studies that examined the concept of administration as a process or as a science. Although they found, generally, that there were similarities between the private and public sectors in administration, there were also differences based on a lack of scientific knowledge of the manager's roles. They suggested that more academic training was needed in the development of managerial candidates.

Recent research studies by students of educational administration compared the roles of public school administrators with business executives by comparing management activities or personal profiles. One study was based on a comparison of management theory in educational, business, and public administration.

Mintzberg's observational study on the work of five chief executive officers from the private and public sectors was an attempt to define the manager's activities in the job. He used a set of descriptors to define ten sub-roles within three broad classifications of major roles. These roles were

used in formulating the hypotheses of this study to compare time allocations between public school superintendents and CEOs to determine if the two groups were performing similar activities.

Another study using the Mintzberg roles was also reported in this chapter. Lau and Pavett compared high-level jobs in the private and military sectors using the roles to determine job content, job characteristics, and required skills, knowledge and abilities. Both of these researchers (Mintzberg, Lau and Pavett) acknowledged similarities between private and public managers, but also suggested that specialized academic training was inadequate to select and develop potential executives.

The general conclusion of the researchers reported in this chapter is that there are some similarities and some differences in administration in the private and public sectors, particularly between education and industry. It was also suggested that the specific activities of the manager's job could be more clearly delineated and that training programs could be upgraded.

## Chapter 3

### PROCEDURES

The purpose of this study was to examine the similarities of the roles and responsibilities which exist between leaders in education and business through a comparison of the time devoted to each role. In this chapter the design of the study, the null hypotheses, the selection of the population and sample, the instrumentation used to obtain the data, the procedures of data collection, and the procedures for the statistical analysis of the data are presented.

#### Statements of Null Hypotheses

The statements of null hypotheses that were tested in the study were:

#### Sub-Roles

H<sub>1</sub>: There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Figurehead Sub-Role.

H<sub>2</sub>: There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Leader Sub-Role.

H<sub>3</sub>: There is no significant difference between public school superintendents and chief executive officers

in industry in the time spent in the Liaison Sub-Role.

Major Role  
(Total of  $H_1$ ,  $H_2$ , and  $H_3$ )

$H_4$ : There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Interpersonal Role.

Sub-Roles

$H_5$ : There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Nerve Center Sub-Role.

$H_6$ : There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Disseminator Sub-Role.

$H_7$ : There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Spokesman Sub-Role.

Major Role  
(Total of  $H_5$ ,  $H_6$ , and  $H_7$ )

$H_8$ : There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Informational Sub-Role.

Sub-Roles

$H_9$ : There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Entrepreneur Sub-Role.



$H_{10}$ : There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Disturbance Handler Sub-Role.

$H_{11}$ : There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Negotiator Sub-Role.

$H_{12}$ : There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Resource Allocator Sub-Role.

Major Role  
(Total of  $H_9$ ,  $H_{10}$ ,  $H_{11}$ , and  $H_{12}$ )

$H_{13}$ : There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Decisional Role.

The survey instrument began with questions based on personal data from the respondents on age, sex, education, length of time in the organization, in the position, in the industry, and salary range. The main section of the survey instrument requested the respondents to report the percentages of time spent in each of the sub-roles and roles which were listed as hypotheses in the preceding section. The last section of the survey instrument requested the respondents to rank the ten sub-roles in priority order, using 1 as the most important and 10 as the least important.

There were also four ancillary questions that gave the respondents the opportunity to state personal opinions about the roles they filled. These questions were:

1. Do you find yourself spending the most time in the sub-role that you personally consider the most important and the least time in the sub-role that you consider the least important?

2. Are there some sub-roles that require your time more at one period of the year than consistently throughout the year?

3. Are there some sub-roles that you perform that are not included in the above list?

4. Do you find more personal satisfaction in some sub-roles than in others?

All of the findings to the data collected are reported in Chapter 4 with conclusions, implications and recommendations for further research. The survey instrument is presented in Appendix A.

### Population and Sample

The population of the study was school superintendents and chief executive officers (CEOs) in industry. A sample of each group was selected in a random stratified process from superintendents and CEOs based in San Mateo and Santa Clara Counties of the San Francisco, California, peninsula region. These two counties are adjacent to one another and both contain a large representation of businesses and school districts in sizes ranging from very small to very large.

Thirty superintendents from school districts ranging

in size from 1,000 to 25,000 students in average daily attendance were randomly selected from the Public School Directory of California, 1980.<sup>1</sup> Thirty chief executive officers from business firms with gross sales ranging from 1 to 25 millions dollars were selected from the California Manufacturers Register, 1980.<sup>2</sup> (The firms included electronics, foods, business communications, stainless steel products.)

A stratification system was used to place schools and businesses into three different groups of small, medium, and large, from which the superintendents and CEOs were selected. The classification of sizes was determined by the number of students in average daily attendance for schools and in gross sales for businesses. The very smallest and the very largest sizes were not used. The sizes of schools were grouped as: small (1,000-3,999 students), medium (4,000-9,999), large (10,000-20,000). The businesses were grouped as: small (1-5 million dollars in annual gross sales), medium (5-10 million dollars), large (10-25 million dollars). This stratification system was used to ensure adequate representation of respondents from all sizes of schools and businesses. Ten respondents were selected from each size. The respondents were then pooled in two groups--

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<sup>1</sup>The California Public School Directory (Sacramento: California State Department of Education, 1980).

<sup>2</sup>The California Manufacturers Register (Los Angeles: Times Mirror Press, 1980).

superintendents and CEOs--for the testing of the hypotheses. The stratification system was as follows:

| <u>Size</u> | <u>Superintendents</u> | <u>CEOs</u> |
|-------------|------------------------|-------------|
| Small       | 10                     | 10          |
| Medium      | 10                     | 10          |
| Large       | <u>10</u>              | <u>10</u>   |
| Totals      | 30                     | 30          |

#### Instrumentation Used in Gathering Data

It was necessary to obtain data from the superintendents and CEOs in order to test the hypotheses of this study. A survey instrument to be mailed to the selected sample was considered to be an efficient and accurate method of gathering the data, assuming that an acceptable level of responses could be obtained. Several sources of tests and instruments already in print were consulted to find an instrument that could gather the data needed. No existing instrument was found to be appropriate for this study; therefore, a new questionnaire was developed to gather the data that would test the hypotheses in this study.

#### Validity

To establish the validity of the instrument, a panel of experts was requested to assess the content and construct validity of the instrument and to return their comments and suggested revisions to the researcher. The members of the panel agreed on the appropriateness and relevance of each

item to the roles described on the instrument. The instrument was ultimately approved as one that would accurately assess the time spent in performing the roles. When the panel approved the design and specific items on the instrument, it was considered ready to test for reliability. The members of the panel were:

Roger L. Reimer, Ph.D., Professor, Educational Administration, University of the Pacific, Stockton, CA.

K. Jessie Kobayashi, Ed.D., Superintendent, Murray School District, Dublin, CA.

Michael Ballot, Ph.D., Professor, School of Business, University of the Pacific, Stockton, CA.

William Darling, Ed.D., Associate Professor, School of Business, University of the Pacific, Stockton, CA.

Joseph Anastasio, Ed.D., Adjunct Professor, Educational Psychology, University of the Pacific, Stockton, CA.

Michael Gilbert, Ed.D., Associate Professor, Educational Administration, University of the Pacific, Stockton, CA.

Tod Anton, Ed.D., Superintendent, Lincoln Unified School District, Stockton, CA.

David King, President and Founder of Careers for Women, Inc., New York City, NY.

### Reliability

A pilot study was conducted to establish the reliability of the instrument. Ten school superintendents and ten CEOs in industry from Alameda and Contra Costa Counties were randomly selected to be the subjects of the pilot study in a test-retest formula. The questionnaire was mailed to each subject with a cover letter requesting his or her assistance in testing the accuracy of the reliability of two

survey instruments. Ten days after the initial mailing, telephone calls were made to the nonrespondents to encourage their response.

The retest was accomplished by mailing the same instrument, which had been printed in a different color and had a cover letter replacing the front page of the instrument, to the same respondents about three weeks after the initial mailing. Each questionnaire was coded to match the first one returned by each respondent. Each packet contained a stamped, addressed return envelope. Ten days after the second mailing, telephone calls were made again to any nonrespondents to encourage their response. The percentage of final returns of the test-retest process was 60 percent. The data were punched on key-punch cards into the Burroughs B-6700 computer. The Spearman Product Moment Formula was used to establish a reliability coefficient, which resulted in a median correlation of .78.

#### Procedures of Data Collection

After the validity and reliability of the instrument had been established, the data collection process was initiated. The instrument was printed to attract the respondent's attention, to maximize space and to provide a simple, efficient system of answering the questions. The instrument was printed on a legal size sheet and folded to produce a four-page brochure. The first page contained

questions about the respondent's personal background which would be used to provide a description of the respondents. The inside pages of the instrument contained the questions requiring percentage estimates of the time the respondent spent in each role. These data were directly related to the hypotheses of the study. The back page of the instrument contained ancillary questions that gave the respondents the opportunity to state some personal preferences about their jobs and to rank the roles in priority order.

A cover letter was included in the packet sent to each respondent requesting his or her assistance (Appendixes B and C). The letter explained the purpose of the study and offered to send a summary of the study results. The confidentiality of the respondent's name and answers was guaranteed. The letter was signed by the researcher and the Chairman of the Dissertation Committee. Also included in the packet was a stamped, addressed, return envelope and an addressed postcard to be returned only if the respondent wanted to receive the results of the study.

Two weeks after the mailing, a postcard was mailed to the nonrespondents urging their responses to the questionnaire. The postcard stated that telephone calls would be made to the nonrespondents in a few days. One week later, telephone calls were made to the remaining nonrespondents. A few subjects who had misplaced their questionnaires requested replacements, which were provided. The total response received in the study was 73 percent--83 percent of

the superintendents and 63 percent of the CEOs--which was distributed evenly among all sizes of organizations. There were five to nine responses in each size from each group.

### Procedures for Statistical Analysis

The percentages of time spent in each major role and each sub-role by the superintendents and the CEOs were used to test the hypotheses. A one-way analysis of variance, with percentage of time as the dependent variable, was used to analyze these data from the two groups. The critical level of significance chosen was .05. Because the sample was stratified by size to ensure adequate representation and to eliminate bias, a two-way analysis could have been employed to test for interaction between sizes and groups. However, the distribution of responses produced some cells with too few responses to yield significant results.

### Summary

In this chapter the methods and procedures of the study were reported. The statements of the null hypotheses and the ancillary questions that were included in the survey process were presented. The population and sample were described, as well as the method of selection. The procedures used to establish the validity and reliability of the instrument were discussed. Procedures for collecting and analyzing the data were presented.



## Chapter 4

### FINDINGS, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS FOR FURTHER RESEARCH

In this chapter is presented the analysis of data gathered from the survey process, the interpretations and conclusions, educational implications, and recommendations for further research. There are seven major sections in this chapter. The background information obtained from the respondents is reported in the first section. Comparisons between the two groups are made and discussed. In the second section are presented the hypotheses of the study and the comparisons of time spent in each of the three major roles and the ten sub-roles by superintendents and chief executive officers (CEOs). In the third section are given the correlations between the importance of each sub-role, as perceived by the respondents, and the time spent in each role. Comparisons are also made between the two groups of the rankings given to the sub-roles. The answers to the ancillary questions are presented in the fourth section. In the fifth section is presented a summary of the study. Educational implications are presented in the sixth section of this chapter, and in the seventh section are recommendations for further research.

### Presentation of Background Information

The first page of the survey instrument contained questions that provided background information about the respondents' personal careers. The data were collected to provide comparisons of similarities or differences between the two groups. It was considered important to include these data as a means of describing the respondents. It also provided a method to test the willingness of the respondents to answer questions of this type. Some recommendations for further studies were based on the data collected in this section of the instrument.

Comparisons were made between groups in age range. None of the respondents was under 30 years of age and only a small percentage of each group was in the 30 to 40 year range. The vast majority of respondents from both groups was between 40 and 60 years of age; 48 percent of the superintendents were between 50 and 60 years of age compared to 31.6 percent of the CEOs; about 36 percent of each group indicated that they were in the 40 to 50 years age range. Smaller percentages (15 percent or less) of both groups were under 40 years or over 60. It was not surprising to find that most of the superintendents were in the next to oldest age range. Most persons who enter the field of education with goals of advancing to top administrative positions are also those who usually plan to make education a lifetime career. It is typical for persons to work their way through

the ranks via a seniority system of sorts, spending a few years as a teacher, then as a principal or other administrator. Even though some persons may change school districts to obtain the position of superintendent, it is usually after having put in several years of service in other districts. Once the superintendent obtains the top administrative position, he or she is not likely to change careers after having invested many years in a state retirement system. The small percentage of superintendents over 60 years of age indicated that they were probably retiring at that age range. The CEOs were represented more substantially in four age ranges; they reported higher percentages than the superintendents in the under 40 or over 60 years range. This information describes the variety of situations possible in the private sector. Each firm has its own retirement system and its own criteria for selecting and removing personnel, and those criteria may allow a more competitive atmosphere to exist in selecting executives of any age. The private sector also has not been restricted to requirements of degrees or credentials, which allows persons to advance to executive positions on the basis of ability, rather than on educational training. There were no apparent relationships between the ages of the respondents and the sizes of the organizations to which they belonged.

In comparing the sex of the respondents by groups, the data showed that 100 percent of the superintendents were male and only one of the CEOs (.05 percent) was female.

Although there are approximately 20 female superintendents in California, none of them was randomly selected for this study. The number or percentage of female CEOs is not known, but it is likely that it would be higher than was represented by the random selection of this study. It had been expected that the number of females from both fields selected for this study would have been higher because of the emphasis of affirmative action policies which are in force in California.

In educational background, it was noted that 72 percent of the superintendents held doctorate degrees, while no chief executive officer held a doctorate. The other 28 percent of the superintendents held masters' degrees compared to 31.6 percent of the CEOs with masters'. No superintendent held less than a master's degree while 63.1 percent of the CEOs held bachelors' degrees and 5.3 percent held high school diplomas. It was not surprising to find that superintendents held higher degrees than the CEOs because of the requirements of the California State Certification Laws which require that administrators, except superintendents, hold administrative credentials. In order to qualify for the credential, a candidate must take required course work and have at least three years teaching experience preceded by a bachelor's degree and a teaching credential. Most candidates who earn an administrative credential usually complete the work for a master's degree simultaneously. In the past few years, more administrators have continued their education by earning a

doctorate in order to be more highly qualified in the competitive search for a superintendency position. In the private sector, a similar phenomenon does not exist. A CEO could be hired with no formal degree if he or she held the degree of experience or ability that the company considered necessary. However, in recent years more emphasis has been put on higher college training for persons entering business fields, and the Master of Business Administration degree, in particular, has enjoyed increased popularity. It is likely that the number of CEOs with masters' will increase substantially in the near future.

A review of the questions asking length of time spent in the present position and in the organization did not reveal any substantial differences or similarities between the two groups. Nor could any differences be noted between the responses and the sizes of organizations. In examining the question which asked the length of time spent in the industry, the vast majority of the responses from both groups were in the 20-years-or-more range. Comparing the responses by size of organization showed the following responses:

| <u>Size of Organization</u> | <u>Supt.</u> | <u>CEOs</u> |
|-----------------------------|--------------|-------------|
| Small                       | 7            | 3           |
| Medium                      | 4            | 3           |
| Large                       | <u>5</u>     | <u>3</u>    |
| Total Responses             | 16           | 9           |
| Total Percentages           | 64.0%        | 47.4%       |

There were no substantial differences related to size of organization. The data showed that both groups had spent many years in their respective fields indicating that these top positions are being held by experienced persons. Those who had spent 20 years or more in their field were probably not very likely to change fields at that point, particularly superintendents who had invested many years in the state's retirement system.

Another question where differences were noted was the question asking the income range of the respondents. No superintendents reported earning over \$60,000, while 78.9 percent of the CEOs earned at least that amount of money. Twenty percent of the superintendents earned between \$50,000 and \$60,000, while 5.3 percent of the CEOs earned the same amount of money. Seventy-six percent of the superintendents earned between \$40,000 and \$50,000 compared to no CEO who fell into that range. Only four percent of the superintendents and 10.5 percent of the CEOs earned between \$30,000 and \$40,000, and no respondent of either group earned less than \$30,000. The data showed that CEOs earned higher salaries than the superintendents, as would be expected when comparing the private and educational sectors. The salaries of superintendents are limited by the operating budget of the school district, which is determined, in part, by the average daily attendance of the students plus state and federal aid generated by certain programs. The California State Education Code requires that 85 percent of the

school budget must be used for the salaries of all personnel. The superintendent usually negotiates his or her salary with the school board, and it is the board's prerogative to determine the limits of the salary for the position. The CEO's salary is determined by the profits of the company and the value placed upon his or her abilities by the chairman of the board of the company, the stockholders, or the owner. The CEOs also can accept extra compensation in the form of profit-sharing, bonuses, and the like, which superintendents cannot receive since schools are a nonprofit service.

Although it might be expected that larger organizations--both private and public--would pay their chief administrators higher salaries than smaller ones, this did not hold true in this study. The majority of CEOs (78.9%) reported earning over \$60,000, and when comparing the percentages by size of organization, the data showed that 10.5 percent of the CEOs were from small-size firms. About 36.8 percent of the respondents were from the medium-size firms, and 31.6 percent were from the large-size firms. The majority of superintendents (76.0%) reported earning between \$40,000 and \$50,000. The data showed that 32 percent of that group were from small-size school districts, 32 percent from medium-size districts, and 12 percent from large districts. These data did not indicate that higher salaries were correlated with larger sizes of organizations. It could indicate that both private industrial firms and school districts are willing to pay higher salaries to their chief

executives to attract the highest quality candidates. The problems that exist in organizations are as difficult in one organization as in another, regardless of size; therefore, executives must have high problem-solving skills. It appears that smaller and medium-size organizations and districts are competing for top quality candidates with higher salaries.

Personal data are summarized in this paragraph.

Most superintendents surveyed were in the 50 to 60 years range, with the next largest group in the 40 to 50 years range. Most CEOs reported ages of between 40 and 50 years, with the next largest group from 50 to 60 years. In combining the two largest groups of respondents from each field, both groups showed the most responses in the 40 to 60 years range. One hundred percent of the superintendents were male, and almost 100 percent of the CEOs were male, with only one female CEO respondent. Superintendents held higher college degrees, most with doctorates. Most CEOs held bachelors' degrees, with the next largest group holding masters' degrees. Length of time in the position and in the organization were fairly evenly distributed among the ranges. Length of time in the industry showed that the majority of respondents in both groups had spent over 20 years in their field. The data regarding salary earned showed that CEOs earned higher salaries, with the majority of them reporting over \$60,000 per annum. The majority of superintendents earned between \$40,000 and \$50,000, and no superintendent



earned over \$60,000. All of these data are tabulated in Table 1.

Table 1

Percentages of Responses from Superintendents and CEOs  
to Background Information Questions on the  
Survey Instrument

| Questions Asked                              | Percentages of Responses |      |
|--|--------------------------|------|
|  | Supt.                    | CEOs |
| AGE RANGE                                    |                          |      |
| Under 30 years                               | 0.0                      | 0.0  |
| 30-40 years                                  | 12.0                     | 15.8 |
| 40-50 years                                  | 36.0                     | 36.8 |
| 50-60 years                                  | 48.0                     | 31.6 |
| Over 60 years                                | 4.0                      | 15.8 |
| FORMAL EDUCATION                             |                          |      |
| High School Diploma                          | 0.0                      | 5.3  |
| Bachelor's Degree                            | 0.0                      | 63.1 |
| Master's Degree                              | 28.0                     | 31.6 |
| Doctor's Degree                              | 72.0                     | 0.0  |
| LENGTH OF TIME SPENT IN<br>THIS ORGANIZATION |                          |      |
| Under one year                               | 0.0                      | 5.4  |
| 1-3 years                                    | 16.0                     | 0.0  |
| 3-5 years                                    | 8.0                      | 10.5 |
| 5-10 years                                   | 32.0                     | 10.5 |
| 10-20 years                                  | 24.0                     | 36.8 |
| Over 20 years                                | 20.0                     | 36.8 |
| PRESENT SALARY                               |                          |      |
| Under \$20,000                               | 0.0                      | 0.0  |
| \$20,000-30,000                              | 0.0                      | 5.3  |
| 30,000-40,000                                | 4.0                      | 10.5 |

Table 1 (continued)

| Questions Asked                       | Percentages of Responses |      |
|---------------------------------------|--------------------------|------|
|                                       | Supt.                    | CEOs |
| PRESENT SALARY (cont.)                |                          |      |
| 40,000-50,000                         | 76.0                     | 0.0  |
| 50,000-60,000                         | 20.0                     | 5.3  |
| Over 60,000                           | 0.0                      | 78.9 |
| SEX                                   |                          |      |
| Male                                  | 100.0                    | 94.7 |
| Female                                | 0.0                      | 5.3  |
| LENGTH OF TIME IN<br>PRESENT POSITION |                          |      |
| Less than one year                    | 0.0                      | 10.5 |
| 1-3 years                             | 28.0                     | 5.3  |
| 3-5 years                             | 8.0                      | 15.8 |
| 5-10 years                            | 32.0                     | 31.6 |
| 10-20 years                           | 24.0                     | 21.0 |
| Over 20 years                         | 8.0                      | 15.8 |
| LENGTH OF TIME IN<br>THIS INDUSTRY    |                          |      |
| Under one year                        | 0.0                      | 0.0  |
| 1-3 years                             | 0.0                      | 0.0  |
| 3-5 years                             | 0.0                      | 5.3  |
| 5-10 years                            | 8.0                      | 21.0 |
| 10-20 years                           | 28.0                     | 26.3 |
| Over 20 years                         | 64.0                     | 47.4 |

Analysis of Data Pertaining  
to Hypotheses

The three major roles and the ten sub-roles of management, which were the main concern of this study, were

defined in the main section of the survey instrument (see Appendix A). Each superintendent and each chief executive officer was asked to state the percentage of time spent in each of the roles. A two-way analysis of variance was used to test the null hypothesis that there were no significant differences in the way superintendents and chief executive officers allocated their time. Included in this section are the descriptions of the roles tested, the null hypotheses, the results of the two-way analysis of variance test with the acceptance or the rejection of the null hypotheses, the ranges of time, the average amounts of time spent in each role by each group, and discussions of the findings.

#### The Figurehead Sub-Role

This role describes the executive's function as the symbol of the organization as he or she presides at ceremonies, receives visitors, attends community functions, public relations activities, etc.

H<sub>1</sub>: There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Figurehead Sub-Role.

The analysis of data indicates there is a significant difference between the two groups at the .05 level; the null hypothesis is rejected. The superintendents averaged 9.4 percent of their time in that role with a range of time from 2 percent to 70 percent. The chief executive officers averaged 3.6 percent of their time in that role with a range of no time at all to 10 percent. An examination of the

responses indicated that the superintendents reported spending more time in this role than the chief executive officers. One explanation for this difference is that public schools expect the superintendent, as key officer and official representative, to help enhance the image of the school by participating in various public relations activities. Schools are being held more accountable than ever for their programs and budgets by parent groups, government agencies, and community groups. Public school administrators are under pressure from the public to spend time explaining policies, generating support for new programs or defending the discontinuance of existing ones. Responsibility for these activities is often accepted by the superintendent. A superintendent is legally and educationally responsible to the parents and students in the school district to carry out the policies of the school board. The superintendent often is available to meet with anyone in the school community who seeks solutions to his or her concerns; therefore, he or she allocates time to meet with those persons on all levels of school business. This is much different from the chief executive officer of a private organization whose top priority is to insure that profits are made for the company. A chief executive officer might not need to allocate any of his or her time to meet with a minor stockholder or business person with a private concern, whereas a superintendent usually would not refuse to meet with a concerned parent, no matter how insignificant

the problem appeared. The chief executive officer's effectiveness generally does not depend as much on good public relations with the consumers as it does on producing the products that will bring the highest profits to the company's stockholders. These items may explain the larger need that the public sector organizations have for their leadership to fill the Figurehead Sub-Role than do private business firms of their chief executive officers.

### The Leader Sub-Role

In this role, the executive relates to his or her subordinates, motivates and encourages them, replies to their requests, issues directives, provides direction, etc.

H<sub>2</sub>: There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Leader Sub-Role.

The analysis of data indicated that there is no significant difference between the two groups at the .05 level; the null hypothesis is accepted. The superintendents averaged 18 percent of their time in that role with a range of time from 5 percent to 40 percent. The chief executive officers averaged 21.7 percent of their time in this role with a range of time from no time at all to 57 percent. These data indicated that both superintendents and chief executive officers are spending similar percentages of time in the Leader Sub-Role. In comparing the averages of time which respondents allocated among the various roles, it was noted that the largest amount of time, on the average, for

each group was spent in this sub-role.

The role of leadership, as described by Mintzberg, demands time from the administrator to respond to his or her subordinates and to provide an environment which maintains high morale. Although "leadership" has often been explained and described in the professional literature, the concept remains elusive and difficult to define. In responding as they did in this item, executives in both the public and private sectors recognized the importance of providing structure and consideration to persons within the organization. These data suggest that leadership is vital to any kind of organization, whether private or public. It is also worthy of note that the executives from both groups consider this role as the most important of those represented in the study.

#### The Liaison Sub-Role

In this role, the executive interacts with peers and other people outside the organization, establishes relationships in order to exchange information for use in his or her organization.

H<sub>3</sub>: There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Liaison Sub-Role.

The analysis of data indicated that there is no significant difference between the two groups at the .05 level; the null hypothesis is accepted. The superintendents averaged 9.7 percent of their time in this role with a range

of time from 1 percent to 40 percent. The CEOs averaged 7 percent of their time in this role with a range of time from no time at all to 15 percent. It can be concluded that superintendents and CEOs are spending similar amounts of time in the Liaison Sub-Role.

The responses by the two groups indicated that, on the average, a limited amount of time was spent on this activity. There were, however, substantial differences in the range of times reported by the two groups. These differences showed that some superintendents spent more time in this role than any CEO. This could indicate a greater need for the superintendent to interact with the external groups as the key officer of the school district in order to bring information back to the district. A description of the role suggests that it might be interpreted by some executives as having an overlap of activities with those of the Figurehead Sub-Role. Some written comments from the respondents indicated that they considered this role outside the realm of activities important to the execution of their jobs.

### The Interpersonal Role

This major role includes the Figurehead, the Leader, and the Liaison Sub-Roles described in the preceding section. These three roles relate to the manager's behavior that focuses on interpersonal contact. These roles derive

directly from the authority and status associated with holding managerial office.

H<sub>4</sub>: There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Interpersonal Role

The analysis of data indicated that there is no significant difference between the two groups at the .05 level; the null hypothesis is accepted. The superintendents averaged 35.8 percent of their time in this role with a range of time from 10 to 80 percent. The CEOs averaged 31.1 percent of their time in this role with a range of time from 5 percent to 72 percent. Although a significant difference at the .05 level was noted in the Figurehead Sub-Role (Hypothesis 1), the level of difference was not sustained where all three sub-roles were combined. It was noted that one of the sub-roles, the Leader (Hypothesis 2), received the largest estimate of time spent, on the average, of any single sub-role within either group. This sub-role, clearly, is an internal one, dealing with persons and activities within the organization--that of being the leader. The other two roles involved activities with persons and groups outside of the organization. This information suggests that the executives perceive the greatest need for their time is with the staff of the organization.

#### The Nerve Center Sub-Role

In this role, the executive connects formally to every member of his or her organization through his or her



legal authority, is the center of internal and external information, attends conferences and workshops, etc.

H<sub>5</sub>: There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Nerve Center Sub-Role.

The analysis of the data indicated that there is no significant difference between the two groups at the .05 level; the null hypothesis is accepted. The superintendents averaged 8 percent of their time in this role with a range of time from 2 percent to 15 percent. The CEOs averaged 7.3 percent of their time in this role with a range of time from 2 percent to 20 percent. It was concluded that superintendents and CEOs are spending similar amounts of time in the Nerve Center Sub-Role. The sub-roles that the manager performs that put him or her in contact with external as well as internal forces (Figurehead, Liaison) give him or her access to centers of information that other employees or officers do not have. The executive, then, as the information generalist, becomes the focal point of this information--written, oral, routine, nonroutine--and is able to use it as he or she evaluates and disseminates it. It appeared that this sub-role was equally demanding in terms of time commitment to organizations in both private and public sectors as shown by the data in this study.

#### The Disseminator Sub-Role

In this role the executive transmits information to his or her subordinates from outside groups--government

agencies, employee groups, general public--who wish to make their preferences known to his or her organization.

H<sub>0</sub>: There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Disseminator Sub-Role.

The analysis of the data indicated that there is no significant difference between the two groups at the .05 level; the null hypothesis is accepted. The superintendents averaged 7.2 percent of their time in this role with a range of time from 1 percent to 15 percent. The CEOs averaged 5 percent of their time in this role with a range of no time at all to 10 percent. The conclusion was that the superintendents and CEOs are spending similar amounts of time in the Disseminator Sub-Role. This sub-role evolves from the function of the Nerve Center Sub-Role as the executive receives and evaluates information. He or she then transmits information into the organization to guide subordinates in making decisions. Some of the activities in the Figurehead and Liaison Sub-Roles, as well as the Nerve Center, put the executive in contact with the kinds of information that he or she uses in the Disseminator Sub-Role.

#### The Spokesman Sub-Role

In this role, the executive transmits information to outsiders about his or her organization's performance, policies and plans, as well as serves as an expert in his or her industry.

H<sub>7</sub>: There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Spokesman Sub-Role.

The analysis of the data indicated that there is no significant difference between the two groups at the .05 level; the null hypothesis is accepted. The superintendents averaged 6.3 percent of their time in this role with a range of time from 1 percent to 20 percent. The CEOs averaged 5.7 percent of their time in this role with a range of no time at all to 10 percent. The conclusion was that superintendents and CEOs are spending similar amounts of time in the Spokesman Sub-Role. Both groups reported spending less time, on the average, in this sub-role than any other. It is likely that some of the activities in this sub-role could be considered an overlap of some of those in the Figurehead Sub-Role, but it would appear that the superintendents made a distinction between the two roles because they reported spending larger amounts of time in the Figurehead Sub-Role than the Spokesman. It is likely that they considered the public relations activities associated with the Figurehead as much different than transmitting information to outsiders. It could be analyzed that the CEOs spent little time in this role because of the particular nature of their organization, or perhaps, as one CEO commented, those activities are associated more with very big firms such as those which are given national media coverage.

### The Informational Role

This major role includes the Nerve Center, the Disseminator, and the Spokesman Sub-Roles described in the preceding section. This set of managerial activities relates to the receiving and transmitting of information. Interpersonal interaction was incidental in most of these activities; the information was simply moved or recombined and was not used at the time to make significant decisions.

H<sub>8</sub>: There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Informational Role.

The analysis of the data indicated that there is no significant difference between the two groups at the .05 level, and the null hypothesis is accepted. The superintendents averaged 20.8 percent of their time in this role with a range of time from 6 percent to 35 percent. The CEOs averaged 17.9 percent of their time in this role with a range from 5 percent to 40 percent. The conclusion was that superintendents and CEOs are spending similar amounts of time in the Informational Role. Both groups spent the least amounts of time in this major role, on the average, compared with either of the other two major roles. Although it is a role that is considered important enough to be included among the descriptors of the executive's activities, the role was not considered as vital as the other major roles. Perhaps the gathering, evaluating, and disseminating of information is an activity that occurs without conscious

effort on the part of the executive.

### The Entrepreneur Sub-Role

In this role, the executive initiates and designs much of the controlled change in his or her organization; delegates or supervises improvement projects: marketing a new product, introducing a new program, strengthening a weak department, building a new structure of the organization.

H<sub>0</sub>: There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Entrepreneur Sub-Role.

The analysis of the data indicated that there is no significant difference between the two groups at the .05 level; the null hypothesis is accepted. The superintendents averaged 16 percent of their time in this role with a range of time from 2 percent to 50 percent. The CEOs averaged 19 percent of their time in this role with a range of time from no time at all to 70 percent. The conclusion was that superintendents and CEOs are spending similar amounts of time in the Entrepreneur Sub-Role. Examination of the data indicated that both groups spent the second largest amount of time, on the average, in this sub-role, second only to the Leader Sub-Role. Some CEOs reported the largest percentage of time spent in this role. It was the sub-role ranked second most important by both groups and was also identified as the favorite role of some respondents. It is in this role that the executive demonstrates his or her ability as a creative problem-solver and potentially as an empire-builder. This

role is reflected in the introduction of systematic planned change which is needed in any organization. For example, if a superintendent is experiencing declining enrollment in the district, he or she certainly does not have the need of building new schools, but on the other hand, might have a need to sell or rent an existing one, while reorganizing the structure and staff of the remaining ones. Using his or her entrepreneurial skills to solve this kind of a problem also requires skills in other sub-roles such as the Leader, the Liaison, the Nerve Center, and perhaps the Figurehead. The CEO would use these skills in marketing new products, expanding physical plants or adding new departments to the organization. It was concluded that the Entrepreneur Sub-Role was a role of substantial importance for both groups in this study.

#### The Disturbance Handler Sub-Role

In this role the executive deals with corrections which he or she is forced to make because an operating program has broken down or a new one has not become stabilized.

H<sub>10</sub>: There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Disturbance Handler Sub-Role.

The analysis of the data indicated that there is no significant difference between the two groups at the .05 level; the null hypothesis is accepted. The superintendents averaged 9.2 percent of their time in this role with a range

of time from 1 percent to 25 percent. The CEOs also averaged 9.2 percent of their time in this role with a range of no time at all to 20 percent. The conclusion was that superintendents and CEOs are spending markedly similar percentages of time in the Disturbance Handler Sub-Role. Both groups reported spending smaller amounts of time in this role, on the average, than most of the others, and both groups ranked it as close to the least important among the sub-roles. Both groups, however, did spend some time in this sub-role, thereby establishing its appropriateness to the executive. In this role, the manager is forced to make corrections, as opposed to the Entrepreneurial Sub-Role which focuses on planned change in order to maintain balance between change and stability. The kind of situations which would be categorized in the Disturbance Handler Sub-Role are the kind that could occur in any business, private or public. These situations can create change that is partially beyond the manager's control. An unforeseen event could result in a disturbance, or a problem that has been ignored for too long could generate a crisis. The executive acts because the pressures are too great to ignore, and a correction is necessary to resolve the disturbance. The successful handling of such problems could prevent small incidents from becoming major difficulties. It was noted that the Disturbance Handler Sub-Role was filled by both groups in this study.

### The Negotiator Sub-Role

In this role the executive participates directly in negotiating activities with either employee or management groups, consults with his or her negotiating representative or attorney, is involved in employee grievances or implementations of an employee contract, attends workshops or training sessions on negotiations.

H<sub>11</sub>: ~~There is no significant difference between~~  
public school superintendents and chief executive  
officers in industry in the time spent in the  
Negotiator Sub-Role.

The analysis of the data indicated that there is no significant difference between the two groups at the .05 level; the null hypothesis is accepted. The superintendents averaged 7.4 percent of their time in this role with a range of time from no time at all to 20 percent. The CEOs averaged 7.6 percent of their time in this role with a range of no time at all to 30 percent. The conclusion was that both groups are spending similar percentages of time in the Negotiator Sub-Role. It was noted that some respondents from both groups reported that they spent no time at all in this role even though management-employee bargaining is being used extensively in both sectors. It was concluded that the superintendents and CEOs who had marked no time were delegating the negotiating function to administrative assistants, other line officers, or to persons outside the organization such as attorneys, representatives of bargaining firms, or consortiums. Apparently, some executives do not



perceive of negotiating as part of their role (or perhaps they feel that they are not adequately trained to bargain). This may be particularly true when faced with employee or union groups who are not only trained, but supported by professional negotiators. But because the executive is the organization's legal authority, he or she must at least oversee the negotiating activities.

### The Resource Allocator Sub-Role

In this role the executive controls the allocation of resources which require his or her authorization of all significant decisions before they are implemented.

H<sub>12</sub>: There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Resource Allocator Sub-Role.

The analysis of the data indicated that there is no significant difference between the two groups at the .05 level; the null hypothesis is accepted. The superintendents averaged 8.4 percent of their time in this role with a range from 1 percent to 17 percent. The CEOs averaged 10.6 percent of their time in this role with a range from 1 percent to 75 percent. The conclusion drawn on the data was that superintendents and CEOs are spending similar amounts of time in the Resource Allocator Sub-Role, although some individual CEOs reported spending as much as 75 percent of their time in this role. Although it is apparent that some individual must fill this role in an organization, it does not necessarily hold true that the individual must be the top

administrator. In some school districts, for example, a business manager or Assistant Superintendent of Business, is delegated the responsibility for all resources, even though the superintendent has the final fiscal responsibility as the official representative of the school board. The factors that separate the public sector from the private sector in this area are related to the sources from which those resources come. A school district is dependent upon the daily attendance of its students plus other funds from state and federal agencies. The school district must budget for its operation according to the Education Code and guidelines of special programs. A private organization, on the other hand, is in the business of making money for the owner or the stockholders. Finding resources and controlling them carefully might be the most important role a CEO has in his or her organization. It was concluded that even though there are wide differences between the public and private sectors in the sources and in control of monies, the respondents of this study are filling the Resource Allocator Sub-Role.

#### The Decisional Role

This major role includes the Entrepreneur, the Disturbance Handler, the Negotiator, and the Resource Allocator Sub-Roles described in the preceding section. This set of managerial activities involves the making of significant decisions and involving him or her in the

strategy-making process. The work performed in the Decisional role can be accomplished because of the executive's great authority and his or her access to information through the Informational Role.

H<sub>13</sub>: There is no significant difference between public school superintendents and chief executive officers in industry in the time spent in the Decisional Major Role.

The analysis of the data indicated that there is no difference between the two groups at the .05 level; the null hypothesis is accepted. The superintendents averaged 40.5 percent of their time in this role with a range of time from 10 percent to 69.5 percent. The CEOs averaged 48.5 percent of their time in this role with a range from 5 percent to 90 percent. The conclusion was that superintendents and CEOs are spending similar amounts of time in the Decisional Major Role. It was concluded that the set of sub-roles included in the Decisional Role were roles that required more decision-making and strategy-making activities than the two other major roles, and therefore required more of the executive's time. It was noted that both groups reported spending more time, on the average, in this major role than the other two. This suggests that the activities of the Decisional Role requiring strategic decisions can probably be integrated best through the control of one person--the chief executive--in any organization, private or public.

The data presented and discussed in this section are summarized in Table 2. In Table 3 are the statistical data

which include degrees of freedom, the mean square, the F ratio, and the significance of F for each hypothesis.

Table 2

Percentages of Ranges of Time and Averages of Time Spent  
in Roles as Reported by Superintendents and  
Chief Executive Officers

| Hypotheses   | Ranges of Time |             | Averages of Time |             |
|--|----------------|-------------|------------------|-------------|
|  | Supt.<br>(%)   | CEOs<br>(%) | Supt.<br>(%)     | CEOs<br>(%) |
| H <sub>1</sub> : Figurehead  | 2-70           | 0-10        | 9.4              | 3.6         |
| H <sub>2</sub> : Leader  | 5-40           | 0-57        | 18.0             | 21.7        |
| H <sub>3</sub> : Liaison   | 1-40           | 0-15        | 9.7              | 7.0         |
| H <sub>4</sub> : Interpersonal<br>(H <sub>1</sub> +H <sub>2</sub> +H <sub>3</sub> )                  | 10-80          | 5-72        | 35.8             | 31.1        |
| H <sub>5</sub> : Nerve Center  | 2-15           | 2-20        | 8.0              | 7.3         |
| H <sub>6</sub> : Disseminator  | 1-15           | 0-10        | 7.2              | 5.0         |
| H <sub>7</sub> : Spokesman   | 1-20           | 0-10        | 6.3              | 5.7         |
| H <sub>8</sub> : Informational<br>(H <sub>5</sub> +H <sub>6</sub> +H <sub>7</sub> )                  | 6-35           | 5-40        | 20.8             | 17.9        |
| H <sub>9</sub> : Entrepreneur  | 2-50           | 0-70        | 16.1             | 19.0        |
| H <sub>10</sub> : Disturbance<br>Handler   | 1-25           | 0-20        | 9.2              | 9.2         |
| H <sub>11</sub> : Negotiator   | 0-20           | 0-30        | 7.4              | 7.6         |
| H <sub>12</sub> : Resource<br>Allocator  | 1-17           | 1-75        | 8.4              | 10.6        |
| H <sub>13</sub> : Decisional<br>(H <sub>9</sub> +H <sub>10</sub> +H <sub>11</sub> +H <sub>12</sub> ) | 10-69.5        | 5-90        | 40.5             | 48.5        |

Table 3

Degrees of Freedom, Mean Squares,  $F$  Ratio, and  
Significance of  $F$  on Hypotheses Tested

| Hypotheses                          | df | MS      | F     | Sig. of F |
|-------------------------------------|----|---------|-------|-----------|
| H <sub>1</sub> Figurehead           | 1  | 495.512 | 4.446 | 0.042*    |
| H <sub>2</sub> Leader               | 1  | 0.684   | 0.003 | 0.960     |
| H <sub>3</sub> Liaison              | 1  | 126.378 | 1.802 | 0.188     |
| H <sub>4</sub> Interpersonal        | 1  | 530.950 | 2.102 | 0.156     |
| H <sub>5</sub> Nerve Center         | 1  | 27.820  | 0.472 | 0.496     |
| H <sub>6</sub> Disseminator         | 1  | 173.287 | 2.978 | 0.093     |
| H <sub>7</sub> Spokesman            | 1  | 74.810  | 1.117 | 0.298     |
| H <sub>8</sub> Informational        | 1  | 102.050 | 0.938 | 0.339     |
| H <sub>9</sub> Entrepreneur         | 1  | 0.060   | 0.000 | 0.988     |
| H <sub>10</sub> Disturbance Handler | 1  | 39.722  | 0.347 | 0.559     |
| H <sub>11</sub> Negotiator          | 1  | 54.066  | 0.325 | 0.572     |
| H <sub>12</sub> Resource Allocator  | 1  | 112.700 | 0.478 | 0.494     |
| H <sub>13</sub> Decisional          | 1  | 976.226 | 3.125 | 0.086     |

\*Significant at the .05 level

#### Role Demands and Role Importance

In the last section of the survey instrument, the respondents were asked to rank the ten sub-roles in order, using 1 as the most important and 10 as the least important. This ranking of the roles was then correlated with the percentages of time spent in those roles and a Pearson

Product Moment Correlation was computed. The results showed that significant correlations existed at the .05 level in six sub-roles: the Figurehead, the Liaison, the Nerve Center, the Disturbance Handler, the Negotiator, and the Resource Allocator. Therefore, it was concluded that, in general, the respondents are spending a lower percentage of time in those roles that they ranked least important and a higher percentage of time on those roles that they ranked most important. In the remaining four sub-roles tested, the correlations were not high enough to be significant at the .05 level. In those roles--the Leader, the Disseminator, the Spokesman, and the Entrepreneur--it was concluded that the respondents' ranking of a role did not match the percentage of time spent in that role when computed as a total group. There were, however, individual responses that appear to have a higher correlation, but when they were computed as part of the total, the results were not significant at the .05 level.

It was considered important in this study to compare the relationships between rankings of roles to the time actually spent to determine if the results suggested any possibilities for further research. The Pearson Product Moment Correlations are summarized in Table 4.

Comparisons between the two groups on their rankings of the roles were also computed. Both groups listed the same roles as the top three in terms of priority and the same role as the least important. The role that was ranked

Table 4

Pearson Product Moment Correlations between Perceived Importance of Sub-Roles and Time Spent in Sub-Roles by Superintendents and Chief Executive Officers

| Sub-Roles              | Correlation | P      |
|------------------------|-------------|--------|
| A. Figurehead          | 0.5437      | 0.018* |
| B. Leader              | 0.2576      | 0.177  |
| C. Liaison             | 0.6393      | 0.004* |
| D. Nerve Center        | 0.4856      | 0.028* |
| E. Disseminator        | 0.2662      | 0.169  |
| G. Entrepreneur        | 0.2825      | 0.154  |
| H. Disturbance Handler | 0.4392      | 0.051* |
| I. Negotiator          | 0.6924      | 0.002* |
| J. Resource Allocator  | 0.5818      | 0.009* |

\*Significant at the .05 level.

as the most important by both groups was the Leader Sub-Role. This role was also identified as taking the most time, on the average, by both groups, although some individual respondents spent larger amounts of time in other roles. Even though both groups ranked this role as the most important, some respondents reported spending as little as no time at all in this role. It was concluded that those individuals considered their time better spent on roles that required more problem-solving skills than the more elusive one of being the leader of the organization.

The role that was ranked second most important and also received the second largest time allocation, on the average, by both groups was the Entrepreneur Sub-Role. This role was identified as demanding as much as 70 percent of the time of some CEOs and 50 percent of the time of some superintendents. It was concluded that the CEOs spent large amounts of time in this role as it related directly and indirectly to the major goals of making profits for their organization. A superintendent cannot market a new product for profit, but he or she needs his or her entrepreneurial skills to introduce a new program, change or improve the physical plants, or strengthen weaknesses in departments in order to keep the school district operating at maximum efficiency while keeping within the approved budget. It was concluded that the ranking of this sub-role as second most important while also spending large amounts of time in it, indicates that these entrepreneurial skills are needed by both groups, even though the specific procedures and ultimate goals may be different.

The Nerve Center Sub-Role was ranked third by both groups, yet was not identified as a role where substantial time was spent. This could indicate that superintendents and CEOs believed in the importance of having or being a strong center of information, but felt that other roles demanded more of their time, which left less time to develop this role. It could also be possible that the respondents delegated some of this work to their line subordinates.



This would allow the executives to be in close contact with the Nerve Center without taking time away from any of the other roles.

The role ranked the least important by both groups was the Figurehead Sub-Role. The CEOs reported spending the least amount of time, on the average, in this sub-role. The superintendents spent more time, on the average, than the CEOs and some individual superintendents spent as much as 70 percent of their time in this sub-role. This suggests that the role of Figurehead is thrust upon the superintendents by the nature of the job and the demands for accountability placed upon them by the public, even though they personally believe it to be the least important. The information that the CEOs also ranked this sub-role the least important but spent the least amount of time there, could indicate that the CEOs can and do control the allocation of their time, at least in this area, to a much higher degree than the superintendents. There was no consistent relationship between the two groups on the rankings of each of the other six sub-roles. A comparison between the rankings of the groups is summarized in Table 5.

#### Ancillary Questions

The ancillary questions included at the end of the survey instrument yielded a variety of responses. It was considered important to include this section in the instrument to give the respondents an opportunity to express

Table 5

Comparison of Rankings of Sub-Roles by  
Superintendents and CEOs

| Sub-Roles              | Rank  |      |
|------------------------|-------|------|
|                        | Supt. | CEOs |
| A. Figurehead          | 10    | 10   |
| B. Leader              | 1     | 1    |
| C. Liaison             | 5     | 7    |
| D. Nerve Center        | 3     | 3    |
| E. Disseminator        | 9     | 5    |
| F. Spokesman           | 8     | 9    |
| G. Entrepreneur        | 2     | 2    |
| H. Disturbance Handler | 6     | 4    |
| I. Negotiator          | 7     | 8    |
| J. Resource Allocator  | 4     | 6    |

personal feelings and opinions, and to gain additional insight into the study participants. Some of the answers are presented and discussed in the following paragraphs.

When asked if there was a sub-role that was performed by the respondents that was not included in the list, the respondents identified a few unique tasks in which they participated, but no consistent roles could be discerned. Several of the respondents from both groups listed some sub-roles that required more of their time during one period of the year than another. The two sub-roles listed the most by

superintendents and CEOs were Resource Allocator and Negotiator. The question that received the most answers was one that asked the respondents if there was more personal satisfaction in some sub-roles than in others. Some individuals marked several roles. The superintendents responded to this question with a total of 53 listings. There were 15 choices for Leader, 14 for Entrepreneur, 7 for Liaison, 6 for Spokesman, and 4 or less for each of the rest except Figurehead, which received none. The CEOs responded with 19 listed choices. There were 5 choices for Entrepreneur, 4 for Leader, 3 or less for Figurehead, Liaison, Spokesman, Disturbance Handler, Negotiator, and Resource Allocator. The Nerve Center and Disseminator Sub-Roles were not listed.

A space was allotted on the survey instrument to provide room for additional comments. Only a few respondents chose to make a statement. One CEO believed that schools are overstaffed and underworked, with a "make-work" situation in many cases. One CEO responded that she does not go out to socialize for the company, that she stays in and works and that, she believes, is the secret of her success. A superintendent expressed a great interest in the study. He said that, as a rule, he never takes the time to respond to such surveys, so his response demonstrated an exceptional interest on his part. Another superintendent responded that he found that forcing time allocations was valuable experience and that once he saw the numbers recorded, they appeared so concrete. Another superintendent commented that a lot of

time was spent in filling out surveys. Some of these respondents emphasized their request to receive a summary of the results of the study.

### Summary of the Study

The purpose of the study was to determine if public school superintendents and chief executive officers in industry were spending similar amounts of time in filling their roles, or if the time spent differed according to the uniqueness of the field. Thirty public school superintendents and thirty chief executive officers in industry were randomly selected from Santa Clara and San Mateo Counties in California to be participants in the study. The data were collected through a survey process. Thirteen hypotheses were tested based on the roles and sub-roles described by Mintzberg. The respondents were asked to state percentages of time spent in each of the roles and sub-roles. A one-way analysis of variance was employed to compare the time spent in the roles between the two groups.

Background information about the personal careers of the respondents was obtained to provide comparisons of the personal profiles of the respondents. Comparisons between the two groups showed that most respondents were in the 40 to 60 years range; none of them was under 30 years of age, and smaller percentages were under 40 or over 60. All of the respondents were male except one female chief executive officer. Differences were noted in educational background.

Superintendents held higher degrees than did the chief executive officers. Most superintendents held doctorates, with none having less than a master's, while most chief executive officers held bachelors' and a few held masters'. In comparing length of time spent in the industry, in the present position, and with the organization, only one question received a majority of answers from both groups.

That one was length of time in the industry, and both groups responded primarily in the 20-years-or-more range. In the salary range, chief executive officers earned higher salaries, most of them in the over-\$60,000 range, while the majority of superintendents earned between \$50,000 and \$60,000.

A one-way analysis of variance was employed to test the null hypotheses. There were 13 hypotheses based on the three major roles and the ten sub-roles described by Mintzberg, and referred to in the review of the literature, Chapter 2. The results of the tests showed that in only one role, the Figurehead Sub-Role, was there a significant difference (at the .05 level) between the two groups in time allocation reported in that role, and the null hypothesis was rejected. It was found that superintendents spent more time in that role than the chief executive officers. In all the other roles, there were no significant differences at the .05 level, and the null hypotheses were accepted. A summary of the percentages of the averages of time and ranges of time spent in roles, as reported by the

superintendents and chief executive officers was presented in Table 2. The statistical data were summarized in Table 3.

In this chapter were also presented the data and discussion on the correlations computed between the rankings given to the roles by the respondents and the time allocations spent in those roles. In six sub-roles--the Figurehead, the Liaison, the Nerve Center, the Disturbance Handler, the Negotiator, and the Resource Allocator--there were correlations that were significant at the .05 level. The rankings were also compared between the two groups, and it was found that both groups ranked the Leader, the Entrepreneur, and the Nerve Center Sub-Roles as the three most important and the Figurehead Sub-Role as the least important. The comparison of rankings was summarized in Table 5. Also in this section were some of the answers to the ancillary questions and personal comments from the respondents.

In the fourth section of this chapter, a summary of the study, implications and recommendations for further research were stated. The recommendations were based on the findings of the study and the supportive data from the professional literature.

### Implications

The findings of this study supported the concept that there is a similarity in the management roles performed and time spent in those roles by superintendents and chief executive officers. Hersey and Blanchard wrote that the

functions of an executive are similar, regardless of the type of organization or level of management. Koontz and O'Donnell and Walton agree with this concept of universality and have written that administrative activity is essentially the same in all organizations. Even though there are similarities in management roles, there are obvious differences; knowledge of curriculum for educating students would be needed for school administrators and technical knowledge of certain products or marketing skills would be needed for the chief executive officer of a manufacturing firm.

Using the Mintzberg roles in this study substantiated, to some degree, that the roles were applicable to the functions of the superintendents and chief executive officers tested. This conclusion was based on the data that indicated that most respondents reported time allocations in almost all of the roles, although there were some roles which did not receive any allocation of time from some individuals. There appear to be overlaps of activities between the Mintzberg roles and there is the possibility that if they were regrouped into different broad roles, the results of the test could be substantially different. Mintzberg stated that the delineation of roles was a categorizing process that could be considered an arbitrary partitioning of the manager's activities into affinity groups. He considered the major delineation as either external or internal; that is, working with personnel outside or inside the organization. One way of regrouping the roles would be

to combine the four which appeared to be more external-- Figurehead, Liaison, Disseminator, and Spokesman--and compare the data against the other six sub-roles which would be called the internal roles.

The wide ranges of time reported by respondents in both groups make the interpretation of data difficult to generalize. Although there were similarities in the time spent by each group, the tasks within the roles may be so diverse as to preclude the implication that the two groups are filling the same roles. It may have been the diversity of tasks within the roles that caused some respondents to report spending very little time in some roles and a great deal of time in other roles. It may be the case that the groups (within the sizes of organizations tested in this study) are performing some roles that are similar, but it is suggested that further refinement of the survey instrument be completed before such a generalization is stated.

Based on the findings of this study it is suggested that colleges of business and educational administration should share their resources and develop some core courses with content of common interest to them both. Such courses could be made available to students of both fields. This would include sharing resource persons and holding joint seminars. It would also be beneficial for superintendents and chief executive officers to hold workshops, seminars, and other in-service training jointly, to share ideas and practices that are beneficial to both, and discuss common



problems. Both fields could develop a more open policy about seeking candidates from either field for their administrative positions, particularly if college training programs developed more commonalities in their content. It is emphasized, however, that specialization courses within each field are considered essential because it is apparent that specific activities within roles can vary between fields.

#### Recommendations for Further Research

Several recommendations for future studies were made based on the findings of this study. The conclusions of this study provided a base from which to consider more comparisons between education and industry, particularly at the executive level. Very little empirical data have been collected on tests which attempt to compare the activities of executives in different industries.

A study could be conducted to validate the respondents' estimates of their time spent in each role. This could be done by observation or by interview. In conducting such a study, the specific activities of each role could be more clearly defined. The results of the study could support or refute the Mintzberg roles as a valuable tool in assessing the functions of executives and in comparing management roles between industries. It is recommended that multivariate analyses be used in such a study to refine the data. The Mintzberg study was conducted

with a very small sample (5) and a larger sample might show different results or, at least, the results might be considered more conclusive. Mintzberg recommended that there should be a clearer mapping of activities onto roles. Lau and Pavett attempted to test the Mintzberg roles further by examining job content and by determining the importance of each function to job success.

Another study could be conducted to test the correlations of ranking of roles and time spent in each role by each respondent. Comparisons could also be made between the two groups of superintendents and chief executive officers.

Another study could be conducted to investigate the personal characteristics of superintendents and chief executive officers to determine if there are commonalities in persons who hold top administrative positions, or in executives of education and industry. These studies could include investigating behavior differences, management style, educational background, as well as the dominance of both fields by males.

A study could be conducted with more refinements of size correlates between education and industry. School budgets could be used to define size, for example, or the number of employees under the responsibilities of the executives could be used as correlates. Another way of selecting organizations in industry would be to determine the age of the firm, recognizing that variances in executive style could occur between fledgling or well-established

firms. Further refinements could also be made by testing roles by size and making comparisons between sizes in each field and between the two fields. These studies could also test correlations with the data obtained from the background information (age, salary, length of time, etc.) with size of organization.

The importance of further studies to refine the survey instrument used should be emphasized. The diversity reported in the data indicates that the instrument itself can be misinterpreted by respondents. All of the recommendations made should be followed in the interest of critiquing the instrument as a tool in determining the differences between the two groups in each of the roles, as well as the similarities.

All of these recommendations were made in the interest of adding to the knowledge of the functions of the executive in any field. It was expected that the data collected in this study would be offered to schools of business and education in an effort to upgrade their training programs and tailor them more specifically to the actual needs of the executive on the job. It was also hoped that schools of business and education would find some usefulness in sharing ideas and resources in a cooperative unity that would benefit them both.

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## APPENDIX A

### Survey Instrument Used in Data Collection



# EXECUTIVE ROLES INVENTORY©

## BACKGROUND INFORMATION

DIRECTIONS: PLEASE CHECK THE ITEMS WHICH MOST CLOSELY APPLY TO YOU:

### YOUR AGE RANGE

\_\_\_\_\_ Under 30 years  
 \_\_\_\_\_ 30 - 40 years  
 \_\_\_\_\_ 40 - 50 years  
 \_\_\_\_\_ 50 - 60 years  
 \_\_\_\_\_ Over 60 years

### YOUR SEX

\_\_\_\_\_ Male  
 \_\_\_\_\_ Female

### FORMAL EDUCATION

\_\_\_\_\_ High School Diploma  
 \_\_\_\_\_ Bachelor's Degree  
 \_\_\_\_\_ Master's Degree  
 \_\_\_\_\_ Doctor's Degree

### LENGTH OF TIME SPENT IN PRESENT POSITION

\_\_\_\_\_ Less than one year  
 \_\_\_\_\_ 1 - 3 years  
 \_\_\_\_\_ 3 - 5 years  
 \_\_\_\_\_ 5 - 10 years  
 \_\_\_\_\_ 10 - 20 years  
 \_\_\_\_\_ Over 20 years

### LENGTH OF TIME SPENT WITH THIS ORGANIZATION

\_\_\_\_\_ Under one year  
 \_\_\_\_\_ 1 - 3 years  
 \_\_\_\_\_ 3 - 5 years  
 \_\_\_\_\_ 5 - 10 years  
 \_\_\_\_\_ 10 - 20 years  
 \_\_\_\_\_ Over 20 years

### LENGTH OF TIME SPENT IN THIS INDUSTRY

\_\_\_\_\_ Under one year  
 \_\_\_\_\_ 1 - 3 years  
 \_\_\_\_\_ 3 - 5 years  
 \_\_\_\_\_ 5 - 10 years  
 \_\_\_\_\_ 10 - 20 years  
 \_\_\_\_\_ Over 20 years

### PRESENT SALARY

\_\_\_\_\_ Under \$20,000  
 \_\_\_\_\_ \$20,000 - \$30,000  
 \_\_\_\_\_ \$30,000 - \$40,000  
 \_\_\_\_\_ \$40,000 - \$50,000  
 \_\_\_\_\_ \$50,000 - \$60,000  
 \_\_\_\_\_ Over \$60,000

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 Lorraine Scott  
 4158 Baker Avenue  
 Palo Alto, CA. 94306

# EXECUTIVE ROLES INVENTORY

DIRECTIONS: PLEASE ESTIMATE THE TIME THAT YOU SPEND IN EACH MAJOR ROLE OVER THE SPAN OF A YEAR. THE TOTAL TIME SPENT IN THESE THREE ROLES SHOULD EQUAL 100%. THEN TAKE THE TIME YOU LISTED FOR EACH MAJOR ROLE AND SUBDIVIDE IT INTO THE SEVERAL SUB-ROLES THAT BELONG TO IT.

|  | TIME SPENT<br>IN SUB-ROLES | TIME SPENT<br>IN MAJOR ROLES |
|--|----------------------------|------------------------------|
| <b>1. THE INTERPERSONAL ROLE</b>   |                            | #1 _____ %                   |
| (Sub-roles within this role are:)  |                            |                              |
| <b>A. FIGUREHEAD</b><br>(Being the symbol of the organization, presiding at ceremonies receiving visitors, attending community functions, public relations activities, etc.)   | _____ %                    |                              |
| <b>B. LEADER</b><br>(Relating to your subordinates, motivating and encouraging them, replying to their requests, issuing directives, providing direction, etc.)  | _____ %                    |                              |
| <b>C. LIAISON</b><br>(Interacting with peers and other people outside the organization, establishing relationships in order to exchange information for use in your organization).   | _____ %                    |                              |
| <b>TOTAL TIME FOR A, B, C.</b><br>(SHOULD EQUAL #1 ABOVE)  | _____ %                    |                              |
| <b>2. THE INFORMATIONAL ROLE</b>   |                            | #2 _____ %                   |
| (Sub-roles within this role are:)  |                            |                              |
| <b>D. NERVE CENTER</b><br>(Connecting formally to every member of your organization through your legal authority, being the center of internal and external information, attending conferences and workshops.)   | _____ %                    |                              |
| <b>E. DISSEMINATOR</b><br>(Transmitting information to your subordinates from outside groups-governments, employee groups, general public-who wish to make their preferences known to your organization.)  | _____ %                    |                              |
| <b>F. SPOKESMAN</b><br>(Transmitting information to outsiders about your organization's performance, policies and plans, as well as serving as an expert of your industry.)  | _____ %                    |                              |
| <b>TOTAL TIME FOR D, E, F.</b><br>(SHOULD EQUAL #2 ABOVE)  | _____ %                    |                              |
| <b>3. THE DECISIONAL ROLE</b>  |                            | #3 _____ %                   |
| (Sub-roles within this role are:)  |                            |                              |
| <b>G. ENTREPRENEUR</b><br>(Initiating and designing much of the controlled change in your organization, delegating or supervising improvement projects--marketing a new product, introducing a new program, strengthening a weak department, building a new structure of the organization, etc.)                               | _____ %                    |                              |
| <b>H. DISTURBANCE HANDLER</b><br>(Dealing with corrections which you are forced to make because an operating program has broken down or a new one has not become stabilized. This applies to both personnel and technological problems.)   | _____ %                    |                              |
| <b>I. NEGOTIATOR</b><br>(Participating directly in negotiating activities with either employee or management groups, consulting with your negotiating representative or attorney, being involved in employee grievances or implementations of an employee contract, attending workshops or training sessions on negotiations.) | _____ %                    |                              |
| <b>J. RESOURCE ALLOCATOR</b><br>(Controlling the allocation of resources which require your authorization of all significant decisions before they are implemented.)   | _____ %                    |                              |
| <b>TOTAL TIME FOR G, H, I, J</b><br>(SHOULD EQUAL #3 ABOVE)  | _____ %                    |                              |
| <b>GRAND TOTAL FOR SUB-ROLES</b>   | 100%                       |                              |
| <b>GRAND TOTAL FOR MAJOR ROLES</b>   |                            | 100%                         |

## YOUR OPINIONS ABOUT THE ROLES THAT YOU PERFORM

**DIRECTIONS: PLEASE RANK THE TEN SUB-ROLES IN PRIORITY ORDER FROM ONE TO TEN USING THIS CODE:**

1 = the most important to the successful execution of your job.

10 = the least important to the successful execution of your job.

- |                       |                              |
|-----------------------|------------------------------|
| A. FIGUREHEAD _____   | F. SPOKESMAN _____           |
| B. LEADER _____       | G. ENTREPRENEUR _____        |
| C. LIAISON _____      | H. DISTURBANCE HANDLER _____ |
| D. NERVE CENTER _____ | I. NEGOTIATOR _____          |
| E. DISSEMINATOR _____ | J. RESOURCE ALLOCATOR _____  |

**PLEASE ANSWER THE FOLLOWING QUESTIONS: (You may refer to the sub-roles by using the capital letters)**

1. Do you find yourself spending the most time in the sub-role that you personally consider the most important and the least time in the sub-role you consider the least important?  
 YES \_\_\_\_\_ NO \_\_\_\_\_
  
2. Are there some sub-roles that require your time more at one period of the year than consistently throughout the year?  
 YES \_\_\_\_\_ NO \_\_\_\_\_ If YES, please list them. \_\_\_\_\_  
 \_\_\_\_\_
  
3. Are there some sub-roles that you perform that are not included in the above list?  
 YES \_\_\_\_\_ NO \_\_\_\_\_ If YES, please list them. \_\_\_\_\_  
 \_\_\_\_\_
  
4. Do you find more personal satisfaction in some sub-roles than in others?  
 YES \_\_\_\_\_ NO \_\_\_\_\_ If YES, please list the one(s) you prefer. \_\_\_\_\_  
 \_\_\_\_\_
  
5. Please write any additional comments you wish to make in this space or on additional sheets of paper.

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## APPENDIX B

### Cover Letter to Superintendents



## UNIVERSITY OF THE PACIFIC

SCHOOL OF EDUCATION

Stockton, California Founded 1851

95211

DEPARTMENT OF  
EDUCATIONAL ADMINISTRATION

Dear

We request your assistance in gathering data for a study that we believe will be of significant value to the fields of education and of industry. The study is to compare similarities and differences between the time spent in the roles of your job and that of a chief executive officer of private industry. The data gathered will be useful in determining areas of emphasis in training programs in schools of education and business.

Your name was obtained from the California Public School Directory, 1980, in a random selection process. As the chief executive officer of your school district, your input would be greatly appreciated. The instrument that is being used has been pretested and revised to require a minimum of your valuable time. The averages of the responses in each category will be published but individual responses will be kept in strictest confidence.

Thank you for participating in this study. If you wish to receive a summary of the results of this study, please return the attached card with your name and address.

Sincerely,

*Lorraine Scott*

Lorraine Scott, Researcher  
University of the Pacific

*Roger L. Reimer*

Roger L. Reimer, Ph.D.  
Professor, Educational Administration  
University of the Pacific

## APPENDIX C

### Cover Letter to Chief Executive Officers



# UNIVERSITY OF THE PACIFIC

SCHOOL OF EDUCATION

Stockton, California Founded 1851

98211

DEPARTMENT OF  
EDUCATIONAL ADMINISTRATION

Dear

We request your assistance in gathering data for a study that we believe will be of significant value to the fields of education and of industry. The study is to compare similarities and differences between the time spent in the roles of your job and that of a public school superintendent. The data gathered will be useful in determining areas of emphasis in training programs in schools of education and business.

Your name was obtained from the California Manufacturers' Register, 1980, in a random selection process. As a chief executive officer of your organization, your input would be greatly appreciated. The instrument that is being used has been pretested and revised to require a minimum of your valuable time. The averages of the responses in each category will be published but individual responses will be kept in strictest confidence.

Thank you for participating in this study. If you wish to receive a summary of the results of this study, please return the attached card with your name and address.

Sincerely,

*Lorraine Scott*

Lorraine Scott, Researcher  
University of the Pacific

*Roger L. Reimer*

Roger L. Reimer, Ph.D.  
Professor, Educational Administration  
University of the Pacific

## APPENDIX D

### Frequencies of Responses on Priority Rankings by Superintendents and CEOs



## Responses of Chief Executive Officers\*

| Role | Rank |   |   |   |   |   |   |   |   |    |
|------|------|---|---|---|---|---|---|---|---|----|
|      | 1    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| A    | 1    | 2 |   | 1 | 2 |   |   | 1 | 2 | 4  |
| B    | 9    |   | 2 |   |   |   |   |   | 1 |    |
| C    |      | 3 |   | 1 | 3 |   |   | 4 | 2 |    |
| D    |      |   | 4 | 2 | 2 | 2 | 2 |   | 1 |    |
| E    |      |   |   | 2 |   | 3 | 4 | 1 | 1 | 1  |
| F    |      | 1 |   |   | 3 | 3 | 1 | 1 | 3 |    |
| G    | 3    | 4 | 2 | 1 |   | 1 | 1 |   |   |    |
| H    |      |   | 2 | 4 |   | 1 | 2 |   |   | 3  |
| I    |      | 2 | 1 |   | 3 | 1 | 1 | 1 | 2 | 1  |
| J    | 1    | 3 | 2 | 2 |   |   |   | 3 |   | 2  |

## Responses of Public School Superintendents\*

| Role | Rank |   |   |   |   |   |   |   |   |    |
|------|------|---|---|---|---|---|---|---|---|----|
|      | 1    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| A    | 1    | 1 |   | 2 | 1 | 1 | 2 | 2 | 2 | 12 |
| B    | 17   | 3 | 3 | 1 |   |   |   |   | 1 |    |
| C    |      | 2 | 2 | 3 | 5 | 1 |   | 4 | 6 | 1  |
| D    |      | 6 | 3 | 5 | 1 | 2 | 3 | 1 | 2 |    |
| E    |      | 3 |   | 1 | 5 | 5 | 4 | 3 | 2 | 1  |
| F    |      |   | 5 | 1 | 6 | 2 | 5 | 4 | 2 |    |
| G    | 8    | 6 | 3 | 4 |   | 2 | 1 |   |   |    |
| H    |      | 2 | 5 | 2 | 5 | 4 | 2 | 2 | 2 | 1  |
| I    | 1    | 1 | 2 | 1 | 1 |   | 2 | 6 | 2 | 6  |
| J    | 1    | 1 | 3 | 3 | 2 | 5 | 3 | 2 | 2 |    |

\*Rankings range from 1 to 10, with 1 equaling the most important and 10 equaling the least important.