



Superintendent hiring policies of Montana school board members
by Theodore Christopher Mattocks

A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Education
Montana State University

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Abstract:

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The study was conducted in the spring of 1987. The population consisted of Montana school board members representing all segments of local boards of trustees.

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Of the five major groups analyzed in this study, three evidenced only one combined policy. Large school district board members and female board members displayed two distinct policies in their groups. Both groups of large school district board members and board members in small school districts felt that organizational skills should receive the highest priority in the superintendent selection process. Medium size school district board members felt that people-centered skills should receive top attention. Male board members and both groups of female board members felt that organizational skills should receive the highest consideration. Male board members, small school board members, and one group of female board members felt that the people-centered skills should receive the second highest consideration. However, large school district board members and the second group of women board members felt that the number of years experience as a superintendent deserved second billing. The demographic variable of gender was viewed most negatively by both groups of female board members in the study.

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MONTANA SCHOOL BOARD MEMBERS

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Theodore Christopher Mattocks

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of

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APPROVAL

of a thesis submitted by

Theodore Christopher Mattocks

This thesis has been read by each member of the thesis committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

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November 17, 1987

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ABSTRACT

The problem of this study was to determine the importance placed by Montana school board members on selected organizational skills, people-centered skills, and several demographic criteria when selecting a superintendent of schools. In this study the judgment policy of each board member was analyzed in relation to the use of information contained in the profile cues of hypothetical applicants for the position of superintendent.

The study was conducted in the spring of 1987. The population consisted of Montana school board members representing all segments of local boards of trustees.

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CHAPTER 1

INTRODUCTION

In the history of our American educational system that dates back over 350 years, the position of the school superintendent is a relative newcomer to the profession. School boards have been employing superintendents for the past 150 years with varying degrees of success in what has become a vastly different job today than it was when it was created in the 1830's. Knezevich (1984) noted that the position of superintendent has undergone a transformation from a clerical one, with the superintendent having little control over the operation of the school district, to today's executive who controls what is, in some of the nation's largest cities, a billion-dollar corporation.

The various stages of transformation of the superintendency were due to many factors. At times the transformation was due to sound planning on the part of those school board members involved, while at other times it was out of sheer necessity that the school board would change the superintendent's job function in order to have a better way of operating the school district.

The role of school board members, as elected representatives of the community, has also undergone a gradual

transformation over the 170 years that school boards have been in existence. This has resulted in board members today who are far different from their predecessors. The early school board members had almost total control over the events that occurred at the school, and were highly involved with every aspect of daily operation. It was not until the population of the country began concentrating in the urban centers that the pressures of overseeing the daily operation of the school system became too much for the abilities of most lay, part-time board members to handle (Gilland, 1935). The result of this overburden of work for school board members was the creation of the position that is today known as the school superintendent.

In the century and a half that school boards have searched for superintendents with the necessary skills to fulfill the aspirations of the local community for their schools, many and varied attributes have been used to justify the hiring of one candidate over another. These attributes, or leadership qualities, have been identified in studies by the American Association of School Administrators (1979), and by Cunningham and Hentges (1982), and may be generally described as organizational skills and people-centered skills. Organizational skills are generally those that relate to knowledge of curriculum, finance, planning, plant management, and other skills requiring knowledge of the organization of structures.

People-centered skills are generally those skills that relate to human relations, public relations/community relations, and internal management skills that would help one to deal well with co-workers, board members, and others within the school setting. Each candidate for superintendent also possesses certain demographic characteristics that may influence the hiring decision of a school board member. Such factors as number of years of administrative experience, age, gender, highest degree earned, current job title and the location of the current job, could all potentially sway a board member one way or another in the hiring process.

When school board members perform their constitutional duty of selecting a superintendent, it would seem that the more closely each individual board member's perception of what constitutes a "good" superintendent matches the attributes of the person finally selected, the higher the likelihood that both will be able to work together for the betterment of the school district.

Statement of the Problem

The problem of this study will be to determine the importance placed by Montana school board members on selected organizational skills, people-centered skills, and several demographic criteria, when selecting a superintendent of schools.

Purpose of the Study

There is general agreement among the taxpayers of any community that the position of superintendent is one of the most demanding in any Montana community. The expectations of the position are in a state of constant flux. These changing demands, and the consequent shifts in board member support of the incumbent superintendent, have led to an inordinately high rate of turnover for Montana superintendents over the years. Cunningham and Hentges (1982) found that the average length of superintendents' contracts or letters of appointment was 2.6 years. In the last six year period, an average of over 20 percent of the superintendencies in Montana have become vacant in any given year, which would mean that the average length of superintendents' contracts in Montana is less than 2.0 years. Of the 203 school districts in the state that employ a superintendent, 53 were vacant for the school year beginning July 1, 1987; 45 were vacant for the school year beginning July 1, 1986; 31 were vacant for the school year beginning July 1, 1985; 49 were vacant for the school year beginning July 1, 1984; and 40 were vacant for the years beginning July 1, 1983, and July 1, 1982 (Directory of Montana Schools, 1982-87).

Whether the superintendency becomes vacant as a result of a unilateral action of the local school board, or due to

a mutually-agreed upon separation, the local school board members are placed in the position of finding a new chief executive. For approximately one-fifth of all school board units in the state each year, then, the perceptions that each board member has of the importance of selected organizational skills, people-centered skills, and the demographic criteria found in candidates for the position of superintendent becomes highly critical as the board goes through the hiring process.

This study attempted to identify the varying degrees of importance placed on these factors by local school board members. This study differs from previous studies of administrative competencies in that it attempted to determine the relative importance of those factors that school board members consider in the hiring process by presenting them with a list of variables attributed to several candidates, and then asking the school board member to estimate a particular candidate's chances of being hired as a superintendent in that board member's school district. Other studies, such as Behner (1979), Phillips (1981), Ross (1983), and Hahaldi (1985), chose to study ideal and perceived roles of the superintendent. Vigil (1977) studied which competencies are most important to be a superintendent, while Powell (1982) centered his attention on the competencies most important in selection and evaluation of the chief executive. Discovery of the

varying degrees of importance placed on each of these factors in the hiring process should add greatly to the body of knowledge, and can be useful to school board members in the field, to practicing school administrators, to those institutions that train prospective administrators, and to the professional organizations in which board members and superintendents hold membership.

General Questions to Be Answered

This study and its subsequent statistical analysis was designed to answer four questions. The four questions were:

- (1) Was there more than one policy used by school board members in each of the three district classification sizes when determining which of the variables were most important in hiring a superintendent?
- (2) Did the school board members in each of the three district classification sizes perceive a difference in the importance of any of the variables when making their decision to hire a superintendent?
- (3) Was there more than one policy used by male and female school board members when determining which of the variables were most important in hiring a superintendent?
- (4) What importance was placed on each of the variables by the male and female school board members when making their decision to hire a superintendent?

General Procedure

The population for this study was school board members of Montana school districts whose school board was a member of the Montana School Boards Association. A stratified proportional random sample of 400 board members, based on district size and percentage of the total number of superintendents employed by each size district, was drawn in order to determine who would receive the survey instrument. Due to the need for a proportional stratified sample of the entire population, it was possible that more than one member of a school board in a school district was selected to receive a survey instrument.

The survey instrument format consisted of a series of protocols, or profiles, of typical applicants for the position of superintendent in Montana school districts. These protocols contained the two combined administrative competency factors described earlier and the seven demographic variables. Each board member who received a copy of the survey instrument was asked to make a judgment, or "hiring decision," for each of the protocols presented. Through statistical analysis with a technique known as Judgment Analysis (JAN), a composite "score," or criterion, was established for each board member as to the factors they deemed most important when hiring a superintendent. By grouping the scores of all board members within a

certain school district size classification, a generalized criterion was established for that size group when it came to hiring a superintendent. Grouping all district size classifications together proved impractical due to computer limitations involved in processing more than 200 individuals' judgments at one time, and thus it was not possible to determine a generalized criterion for the entire state. By grouping the scores of all female board members into one group, and the scores of all male board members into another group, it was possible to determine a generalized criterion for each gender of respondent throughout the state.

Survey participants were given two weeks to mail back the survey instrument before a followup reminder was sent. If the selected participant had not returned the survey within one week after the followup request was sent, a final attempt to collect the survey instrument was made by sending a postcard reminder. If, after the third attempt, no return was received from the participant s/he was considered a non-participant in this study.

Limitations and Delimitations

- (1) Only those residents of Montana who were serving on a local school board during the 1986-87 school year were initially eligible for participation in this study.

- (2) Only those school board members whose school board belonged to the Montana School Boards Association were eligible to receive a copy of the survey instrument.
- (3) Only two mailed followup requests were used to try to elicit a response from those selected to participate in this study.
- (4) The majority of sources considered in the review of related literature was from the author's personal library, the Montana State University Library, an ERIC computer search of relevant materials, and professional journals.
- (5) The ERIC computer search was delimited to the years 1980 through 1987.

Definition of Terms

- (1) Superintendent of Schools: The chief executive officer of the Board of Trustees of a Montana elementary and/or secondary school district.
- (2) School Board Member: A registered voter in a local school district who was elected or appointed to serve on the school board for the 1986-87 school year.
- (3) School Board: The legally constituted governing body of the local school district in each Montana school district. It may consist of anywhere from a minimum of three members in the smaller school districts to a

minimum of seven members in the larger school districts.

- (4) Organizational Skills: Those qualities, traits, or skills exhibited by an individual that generally relate to curriculum, finance, plant management, or facilities development.
- (5) People-Centered Skills: Those qualities, traits, or skills exhibited by an individual that generally relate to human relations, public relations/community relations, and internal management.
- (6) Administrative Competency Factors: A combination of organizational and people-centered skills possessed in varying degrees by an applicant for the position of superintendent of schools.
- (7) Demographic Criteria: Those factors that are possessed in varying degrees by each applicant for the position of superintendent. These factors include age, gender, highest degree earned, number of years experience as a superintendent and as a principal, current job title, and the location of the current job, whether in Montana or out-of-state.
- (8) Judgment Policy: Defined by Dudycha (1970) as the extent to which one is able to predict the behavior or actions of a judge (rater) from the known characteristics of the stimuli s/he is being required to

evaluate. Thus the judgment policy is the prediction equation of each judge or group of judges.

The following chapter will detail the historical development of the roles of school board member and superintendent, as well as identify relevant research regarding administrative competencies and decision making theory.

CHAPTER 2

REVIEW OF LITERATURE AND
RELATED RESEARCH

In order to gain a portrait of boards of trustees and public school superintendents a review of the literature on the history of education as it relates to these two roles in this country is essential. The theoretical literature on decision making and human judgment will provide insight into the process of individual and group policy formulation. Since the purpose of this study was to delineate the varying degrees of importance placed on an established list of administrative competencies and demographic factors by local school board members when hiring a superintendent, the literature concerning how individuals combine discrete pieces of information to make judgments will also be reviewed. Due to the different nature of the tasks of school board members and superintendents, each group will be reviewed separately from a longitudinal point of view to reveal historical trends.

In order to draw together the large amount of literature on schools, school boards, superintendents, and the hiring process that links all three together, the following major topics will be developed in this chapter:

(1) historical development of the school board, (2) historical development of the superintendency, (3) the evolving role of the superintendency, (4) identifying basic administrative competencies, and (5) theories about decision making and judgment.

Historical Development of the School Board

Local school governing bodies are known under many titles. For example, this body is called the school committee in Massachusetts, the school trustees in Indiana, the board of school directors in Oregon, the school board in Nebraska, and the board of education, board of school commissioners, or board of school inspectors in other states. In Montana, they are legally known as the board of trustees. By whatever name, they are the policymaking bodies by tradition and legal interpretation. In the United States, lay control of public institutions, especially schools, has had a profound effect on society and the nation.

The significance of lay governance must not be underestimated. Cremin (1970) credited the lodging of the governance of education with ordinary citizens as a critical feature of the revolution in education during the early colonial period. Cremin (1970:70) noted further that, "The laicizing of the sponsorship and the control of

education was paralleled by a significant broadening of clientele." This was the beginning of universal free public education.

School districts are extensions of the states, subject to the will of the legislatures. School board members are agents of the state, chosen locally in accordance with constitutional or statutory provisions and derive their authority from the state. Boards fulfill their control obligations in two general ways. First, they are the official link with the public. Boards are to apprehend, understand, and reflect the public in what they do. Second, boards have internal management responsibilities which are crucial to the enterprise's operation. The selection of top administrative leadership, such as the superintendent, in addition to allocation of fiscal resources and the examination of the system's product are examples of the latter (Campbell et al., 1985).

The origin of lay involvement in the control of education began barely 20 years after the first colonists landed at Plymouth Rock. The famed Massachusetts School Ordinance of 1642 was quite specific in delegating the responsibility for education to the "townsmen." In the words of the Ordinance as quoted by Dexter (1922:584):

This court, taking into consideration the great neglect of many parents and masters in training up their children in learning and labor...do hereupon order and decree that in every town the chosen men appointed for managing the prudential

affairs of the same shall henceforth stand charged with the care of the redress of this evil, so as they shall be sufficiently punished by fines for the neglect thereof upon presentment of the grand jury, or any other information or complaint in any court within this jurisdiction; and for this end they, or the greater number of them, shall have the power to take account from time to time of all parents and masters, and of their children, concerning their calling and employment of their children, especially of their ability to read and understand the principles of religion and the capital laws of this country.

The tone of the Ordinance was very clear and specific. Not only is the state supreme, but the delegation to local citizens is exact and binding. Dexter (1922) further noted that the pattern established in the Ordinance of 1642 was reinforced in the Massachusetts Ordinance of 1647, and in amendment to the 1647 Ordinance passed in 1671 and 1683. It is interesting to note, however, that in the 1642 Ordinance, control was placed in the "townsmen," people who also had other local government responsibilities. The control of education was not separated from other local regulatory and service functions of the townsmen. According to Reeves (1954), the townsmen were both legislative and administrative officials. They made "policies" either as townsmen or through the mechanism of the town meeting at which other citizens could be heard. Reeves (1954) further credits the townsmen, or selectmen as they are sometimes called, with deciding such things as the levy of the town taxes, the selection of teachers and the

determination of their wages, the length of the school year, and provisions for housing the schools.

Ordinances passed by the General Court of Massachusetts became the models for subsequent actions of other colonial legislatures. In 1677, Plymouth Colony passed an act similar to the Massachusetts Ordinance of 1647. The Plymouth Colony law not only called for the establishment of schools, but provided state aid to the local community to be collected from assessments against profits arising from Cape Cod fishing. The Connecticut Laws of 1650 likewise followed the Massachusetts pattern but were considerably more specific and detailed in describing the duties and responsibilities of the selectmen, the nature of the education and apprenticeships to be provided, and the ways and means of supporting local colonial schools. The Connecticut Laws were much stronger than the Massachusetts Ordinances. The language was sharp and the consequences for failure to observe the intent of the law were prescribed. When selectmen found parents or apprentice masters negligent in observing the laws, they were directed to take the children from their parents, or to take the apprentices from their masters, and place them with acceptable masters until the age of 21 for boys and 18 for girls. Dexter (1922) noted that the justifications for such arbitrary actions were implied in the act itself by

advocating that an educated citizenry was imperative if representative government was to survive.

The New England Colonies set the standard for other colonies and subsequently for other states within the union. The control of schools vested in the selectmen continued for nearly two centuries until the task of governing the schools became so great that it was separated from the other affairs of the local government by legislative fiat. The initial split of the duties of the selectmen into two different areas began with the appointment of the first permanent school visiting committee in 1721 in Boston. The Boston visiting committee was a subcommittee of selectmen with a specific task or assignment. The members of the committee were to visit schools and report their observations to the selectmen. This led gradually to the delegation of other school responsibilities to this committee until the subcommittee of selectmen was given full legal status. Even though the Boston selectmen appointed their committee in 1721, it was not until 1826 that the state of Massachusetts officially established school committees as separate from other governing authorities (Reeves, 1954).

Historical Development of
the Superintendency

Knezevich (1984) noted that throughout the early years of this new country there existed a very strong negative attitude toward executives, perhaps as a reaction to the system from which the colonists had so recently escaped. This limited view of the executive's role, especially in any form of government, was espoused by Thomas Jefferson. This view caused early school board members to be involved in all aspects of the school's operation. Individual board members interviewed all candidates prior to their employment as teachers, purchased all instructional and building maintenance supplies, supervised all employed personnel through a program of frequent visitations, and evaluated the school system in general by frequent and continual observation of all personnel and instructional activities.

Gilland (1935) stated that the strong Jeffersonian logic continued until the middle of the nineteenth century and had the effect of preventing the appointment of full-time administrators as executive officers for the school systems until many boards became overwhelmed by the duties of the growing school system. By 1850, many school boards were ready to admit that executive problems such as supervising instruction, evaluating the school's performance, and keeping track of school property were beyond the

capabilities of a lay, part-time administrative agency. At about the same time, Alexander Hamilton's point of view concerning how government should be run was coming into vogue. It was Hamilton's theory that there should be a division of responsibilities between the legislative and executive branches of government. This Hamiltonian model fit the needs of the overburdened school board members very well in the search for a better way to operate the growing school systems of America in the mid-nineteenth century. Hamilton and Reutter (1958) noted that as an outgrowth of the Hamiltonian concept, it became natural for school boards to believe that a determined policy should be delegated to a full-time person with professional preparation, competencies, and experience for implementation. That is, policy makers should not be policy implementors. Other problems arose, however, as local school boards sought to establish this new position of the school executive.

From a legal point of view, school board members were officers of a government corporation known as the school district, and state statutes defined in a general way their responsibilities and administrative powers, as well as those matters left to the discretion of the school board. This legal and discretionary authority lay at the root of much of the controversy and debate as full-time executive professionals were being hired to take over what was

formerly the board's role. Hamilton and Reutter (1958) asserted that the basis of the controversy was that powers delegated to a board by the legislature could not be redelegated or allocated by the board to others without specific legislation to allow such to be done.

The honor of establishing the first superintendencies, in 1837, goes to the cities of Buffalo and Louisville. Table 1 details the establishment of the school superintendency in 39 cities across the eastern and midwestern parts of the country during the nineteenth century. By 1850, eleven other cities had established the position of superintendent in their school systems. Due to the fact that some state legislatures took exception to a local school board creating a position of which they had not approved, five of the cities had to reestablish the position after permissive legislation had passed through the state capitol (Reller, 1935).

Tyack (1976) noted that school boards that hired superintendents during the nineteenth century, especially in the cities, were often not sure what the job should entail. Especially in the years before 1890, many superintendents shifted back and forth from education to other occupations, such as the ministry, law, business, or politics. The actual duties of superintendents usually depended on the expectations of school boards and the drive and personality of the school superintendent. Some were clerks

Table 1. Establishment of the school superintendency in 39 cities.

City	Year of Establishment	Year of Re-establishment	Population as of Nearest Census
Buffalo	1837		18,213
Louisville	1837		21,210
St. Louis	1839		16,469
Providence	1839		32,171
Springfield	1840	1865	10,985
Philadelphia	1840	1883	93,665
Cleveland	1841	1853	6,071
Rochester	1841		20,191
New Orleans	1841		102,193
Brooklyn	1848		96,838
Memphis	1848		8,841
Baltimore	1849	1866	169,054
Cincinnati	1850		115,435
Jersey City	1851		6,856
Boston	1851		136,881
New York	1851		515,547
San Francisco	1851		56,802
Nashville	1852		10,165
Newark	1853		38,894
Los Angeles	1853		1,610
Chicago	1854		29,963
Indianapolis	1855		8,091
Detroit	1855	1863	21,019
Worcester	1856		24,960
Minneapolis	1858		2,564
Milwaukee	1859		45,246
New Haven	1860		45,267
Savannah	1866		28,235
Kansas City	1867		32,260
Pittsburgh	1868		86,076
Washington, DC	1869		109,199
Richmond	1869		51,038
Wilmington	1870		30,841
Denver	1871		4,759
Atlanta	1871		21,789
Omaha	1872		16,083
Portland	1873		8,293
Seattle	1882		3,533
Salt Lake City	1890		20,768

(Source: Reller, 1935:81-82)

in function as well as in name. Some were really head teachers, people who inspired and guided the staff and concentrated on classroom instruction. Others saw the job as comparable to that of drill sergeant or inspector general who certified rigid compliance with rules and regulations. Some superintendents compared their managerial duties with those of supervisors of factories, though the analogies were rarely more than superficial. On occasion, a noted scholar would become superintendent, such as William T. Harris of St. Louis, who thought of himself as an educational statesman, almost a philosopher king, whose duty was to shape the educational thought and practice of city and nation. Before the end of the nineteenth century, the superintendency concept was to be recognized as the only promising solution to the administrative problems confronting public education (Tyack, 1976).

The Evolving Role of the Superintendency

Four stages can be identified in the development of the superintendency. Most superintendents in the mid-to-late nineteenth century focused on instruction. To begin with, the office was mostly a clerical one, for board members needed someone to relieve them of minor details. Even though the superintendent may not have been formally trained as an educator during this time period, the local

school boards did not think it was a problem for the new executive to supervise the mostly female teaching corps as they went about the performance of their duties with mostly pre-teen children.

In the latter part of the nineteenth century and first part of this century, educational programs became more complex and board members began to rely more on their superintendents for assistance with these baffling problems, such as staffing patterns, building problems, and legal issues. In this second stage, the superintendent was chiefly an educator, often a scholar of some reputation. However, the business affairs of the school district were still solidly in the hands of the school board. As Moehlman (1940:246) noted, many boards held the opinion that the "scholarly executive" did not have "a head for business" and had "little interest in many of the supplementary executive activities." Tyack (1976:258) described the early pioneer superintendents in the following manner:

[Superintendents in the nineteenth century conceived of their task in part as an evangelical enterprise, a search for organizational means to realize the goal of creating a 'redeemer nation.' As aristocrats of character in their own idealized self-conception, they were certified not so much by professional training as by church membership and a shared earnestness. In short, they were quintessential Victorians: evangelical Protestant, British-American, bourgeois. Although this tradition became much attenuated by newer sources of ideology in the twentieth century, it left behind a legacy of millennial optimism and an ideal of heroic leadership.

With the continued growth of the educational enterprise, boards of education often felt it necessary to employ a superintendent of business as well as a superintendent of instruction. Since many boards still felt that it was not possible for a "scholarly executive" to be involved with the business affairs of the district, this is understandable. This did, however, frequently lead to a dual administrative organization: one executive for business and one executive for education, both reporting to the board.

Dissatisfaction with this dual plan, plus the influence of a business culture, led to the third stage in the development of the superintendency in which the superintendent became a business manager (Callahan, 1962). At this time, superintendents were budget builders, managers of property, school plant specialists, and directors of elections to pass tax levies and bond issues. This stage, which started about 1920 and lasted until the middle of this century, was probably as much a function of the need to keep up with the record growth of the nation's burgeoning population as it was a metamorphosis of the position. The superintendents of this stage demonstrated business acumen, but they tended to neglect educational purposes and instructional procedures. The emphasis on business also tended to establish unitary control in most school districts as school boards found that the need for two

different people to fulfill the business and educational roles created duplication. The superintendent became the chief executive officer for the board of education. This, however, was clearly not enough; the board needed professional advice on the purposes and procedures of education itself. The role of the superintendent is now in its fourth stage, one that is still evolving, in which the superintendent is the chief executive officer of the school board and the chief professional adviser in the school system (Campbell et al., 1985).

The Educational Policies Commission Report (U.S. Department of Health, Education and Welfare, 1965:247) stated the importance of the position of superintendent by calling it:

...one of the most crucial and perhaps most difficult positions in American life today. The occupant of this position, more than any other single person in the community, influences the shape of public education. Thus, he/she has a basic role in determining what will become of the young people in his/her community, and through them, what his/her community and the nation will become.

Identifying Basic Administrative Competencies

Most educational researchers have ignored the area dealing with the perceptions that board members have during the superintendent hiring process as to what administrative competencies and demographic variables are necessary in a

prospective superintendent. Vigil (1977) undertook a study to identify the perceptions of school board presidents in Colorado relative to the priorities of competencies which they deemed important for a superintendent to possess. Vigil discovered that the behaviors that prospective and practicing superintendents should have, in descending order of importance, are: (1) human relations skills, (2) general knowledge and skills related to the administration of the total school program, and (3) understanding and skills related to subject matter areas. Powell (1982) found in his study that the most important criteria used in the selection and performance evaluation of superintendents fall into three general categories: (1) personal philosophy, (2) professional-technical skills, and (3) interpersonal relations skills. Hilario (1984) conducted a study in California to determine if personal characteristic factors, administrative factors, or experience factors were the most important in the superintendent selection process. Experience factors were found to be moderately important, while personal characteristic factors, with the exception of personal experience, were perceived as not important in the superintendent selection process.

Cunningham and Hentges (1982:23) concluded, after an exhaustive survey of superintendents, that more than two-thirds of them attribute their selection to personal characteristics and qualifications. The superintendents

believe their hiring was based on: (1) personal characteristics/qualifications (66.6 percent), (2) a person to solve specific problems (16.0 percent), (3) a person to achieve specific program improvement (11.4 percent), (4) a person to maintain the status quo (4.0 percent), and (5) other reasons (2.0 percent).

While few researchers have turned their attention to measuring the perceptions that board members have regarding prospective superintendents, several researchers have attempted to discover what it takes for a superintendent to be successful once he has been hired by the board.

The American Association of School Administrators, in a joint publication with the National School Boards Association (1979:35) stated that the superintendent should have knowledge of:

- (1) Classroom and laboratory environments, tools for teaching and structural organization for the deployment of staff and students.
- (2) What science and research show about the expectations, drives, fears, interests, and personal diversities that exist within groups of teachers, parents, and youth.
- (3) The public and what makes it tick, including: what it is; what its dynamics are; how it is organized; who leads it; where the power lies; how it makes itself felt; and how to work with it instead of against it.
- (4) The constantly changing needs of a school district and the society it serves.
- (5) How to plan wisely for the future.

Harris (1977:11-12), then chairperson of the Pittsford, New York Board of Trustees, wrote a first-person

account of that board's search for a new superintendent following the death of the incumbent officeholder. Three strands come out of her writing that apply to the current situation.

- (1) The board should specify the academic requirements, experience, and personality traits which best equip the superintendent to implement the district's educational policies.
- (2) What competence areas are of primary importance to the school district--personnel administration, financial administration, school plant management, instructional program, supplementary pupil services, public relations, or general planning?
- (3) The importance of matching the superintendent to the school district and the community cannot be overemphasized. The superintendent does not function in a vacuum; he or she interacts with the school district staff and the community in the pursuit of shared educational goals.

Several authors and researchers sought to establish the roles that superintendents assume in order to succeed in a particular job. Heller (1985), Professor of Educational Administration at the State University of New York, Buffalo, listed the following traits as being necessary for the successful school executive: (1) grow a healthy ego, (2) communicate well, (3) develop people power, (4) set clear priorities, (5) show integrity, (6) be visible, (7) become well-rounded, (8) hire talented people, (9) manage effectively, (10) be politically savvy, and (11) be decisive.

Cunningham and Hentges (1982:35) asked a group of superintendents to name the two primary expectations that board members have of them in the performance of their current job. Their responses were:

- (1) Skills in human relations (46.4 percent),
- (2) Knowledge of finance (45.2 percent),
- (3) Internal management skills (42.3 percent),
- (4) Public relations/community relations (19.8 percent),
- (5) Planning skills (17.8 percent), and
- (6) Curriculum development skills (14 percent).

Ficklen (1984), associate editor for The Executive Educator magazine, polled those in subordinate educational positions who report to a "boss," and found these qualities as being the most desirable in bosses: (1) creates a team spirit, (2) looks out for the employees, (3) has demanding, yet clear, expectations, (4) trusts the employees, (5) allows mistakes, and (6) has a sense of humor.

Four researchers have found significant differences between the perceptions of superintendents and school board members concerning the ideal and actual leadership role of the superintendent. Phillips (1981) found that there was no relationship between the superintendents' and the school board presidents' perceptions of the superintendent's ideal leadership role in Louisiana, and that there was no agreement between the two groups as to the superintendent's actual leadership role in the areas of: (1) instructional

leadership, (2) curriculum, (3) staff personnel administration, (4) pupil personnel administration, (5) financial administration, (6) public relations, or (7) general planning. Behner (1979) found that significant differences existed between superintendents and board presidents with respect to the areas in which it is perceived that a superintendent should act in his role as a superintendent. The primary area in which incongruencies were found was in the relationship with teachers; superintendents felt they should be more supportive of the teaching staff than did board presidents. A secondary area of difference was noted in dealing with the community. Superintendents believed that it was more important that they be available to the community and that lay committees be involved in studying school problems than did board of education presidents. Ross (1983) found that there was a significant difference at the .001 level between the school board members' real and ideal perceptions of the school superintendent's leadership behaviors. Finally, Hahaldi (1985) found significant differences in the ideal and actual roles of the superintendent as viewed by school board presidents in the areas of community relations and business management.

Identifying the Demographic Variables

Research on the demographic variables included in this study are nonexistent in some areas. Determining whether

or not the applicant's job chances are influenced by the number of years of administrative experience possessed by the applicant, whether or not there is a pro-Montana or pro-out-of-state applicant emphasis, and measuring how one's level of education affects employment are all areas that are nebulous and difficult to measure. Some strong tendencies in recent Montana educational history can be noted. There seems to be a strong tendency for one classification of school districts, first class districts, to hire their superintendents from out-of-state. Of the eight largest first class school districts in Montana, only one has a native Montanan as superintendent. A native Montanan superintendent is one who was educated entirely in the state, and one who has Montana administrative experience. However, five of these eight first class school districts did hire superintendents who had previous Montana experience prior to being hired in their current position, even though they received their education out-of-state.

Another tendency is in the area of the amount of professional education needed to be a superintendent. Recent actions by the Montana State Board of Public Education to require superintendents certified after 1991 to have at least a master's degree plus 30 credits finally moved Montana off the bottom of the "training ladder" among the 50 states (Montana Board of Public Education, 1985). When the new higher level of training requirements are

effected, superintendents practicing in Montana will at least be part way up the "ladder" that already calls for a minimum training level of an earned doctorate in over 20 states (Voorhis, 1986). There are strong suspicions among practicing administrators about each of these areas, but they must remain in the realm of conjecture at this point.

Important information does exist in the area of age and sex discrimination that could affect how a board member would view an applicant for the superintendency. The area of sex discrimination is widely known through various Title IX guidelines, lawsuits, and regulations that have been the object of much media attention in Montana during the past several years. For example, there are six female superintendents in Montana during the 1987-88 school year, half of whom are serving in third class school districts.

Less known, and perhaps appreciated, is the aspect of age discrimination and how it affects employment. Recent enactments by the U.S. Congress have abolished any mandatory retirement age, and Montana state statute has followed suit to the point that dismissal for reasons of age must be linked to one's competency. When Congress enacted the Age Discrimination in Employment Act of 1967 (ADEA), it was "to prohibit discrimination in employment on account of age in such matters as hiring, job retention, compensation, and other terms and conditions of employment" (U.S. Congress, 1978).

Schuster and Miller (1984) state that there are three major theories that have dominated the economics literature on employment discrimination: (1) statistical discrimination, (2) monopoly power, and (3) personal prejudice. In their opinion, age discrimination would be most likely found under the personal prejudice theory of employment discrimination. Personal prejudice theory involves the perceptions one has of another in certain aspects of the other's abilities, attitudes, appearance, and other personal traits.

Researchers in the field of gerontology often assume that the existence of prejudice against the old, simply because of their age, has been clearly established (Barron, 1953; Bennett and Eckman, 1973; Butler, 1969). Recent studies, however, have suggested that people may not possess negative attitudes toward the elderly (Brubaker and Powers, 1976; McTavish, 1971). In addition, most research in the area has relied on one very limited methodology, an attitude survey in which individuals are asked to indicate which traits apply to a generalized old person. Connor et al. (1978) assessed individuals' perceptions of the competence of a specifically described old or young person acting in an important life situation, such as a job interview, to determine if there was a negative attitude toward the competence of the aged. They concluded that

there were no clear differences in the assessment of old and young job applicants.

A study by Locke-Connor and Walsh (1980) to assess the importance of such factors as an applicant's ability, demographic characteristics, effort, and the number of other applicants in determining the outcome of an interview revealed that older applicants are not seen as less competent than younger applicants. Their study also found that even though there was an equal evaluation of competence among the applicants, regardless of age, an older applicant's failure to be hired is more expected than a younger applicant's. The demographic characteristics were given more importance than all other factors in explaining why the older applicants were not given the job. Interestingly, there was no recognition that the demographic characteristic of age might work to the advantage of younger successful applicants in the same way that it worked to the disadvantage of the older unsuccessful applicant.

A 1986 study by Braithwaite et al. to determine the use of age stereotypes in evaluating individuals' behavior in context-specific situations found that while stereotyping can occur in specific contexts, its form is greatly influenced by other aspects of the situation such as demographic variables.

Theories About Decision Making
and Judgment

A review of the literature on the theories of decision making and judgment needs some review in order that the reader may be able to understand how a group of geographically separated raters (school board members) can react to a complex set of superintendent applicant variables (administrative competencies and demographic criteria) and produce a single classwide or statewide conclusion (policy) that will have a high degree of validity.

Research on information processing, especially as it precedes and determines human judgment, was not available before 1960 due to the laborious nature of working problems by hand that contained as few as four or five variables. Given computer facilities, however, scientists are free to work with large numbers of variables, expressed either in continuous or categorical form.

In making judgments, people use many intertwined bits of information. The success of their judgments is dependent upon their ability to interpret, integrate, and differentially weight information to arrive at an appropriate decision. An underlying judgment policy governs a person's process for integrating information to arrive at a judgment. Knowledge of people's judgment policies provides

a basis for understanding why they make certain judgments with respect to a given problem (Anderson, (1977)).

Several researchers contend that there is no substantial difference between judgments and decisions (Slovic and Lichtenstein, 1973:16). Rappaport and Summers (1973:4) stated in their study that:

...judgment is a uniquely important functional aspect of thinking that allows persons to cope with, or adapt to, uncertainty... [and] because of its central role of mediating between intentions and purposes of the persons and uncertainties in his environment, judgment can only be understood by scrutinizing person-environment interactions.

Anderson (1977:72) contended that a person's "motivation, attitude and surroundings may exert an influence" on the decision making situation, and that "judgment policies will be more reflective of real-life decision making if subjects have some freedom in determining the context" of the decision making situation, such as at home at a time when it is convenient to them.

For a person to be able to make successful judgments about a set of administrative competencies and demographic criteria is not an impossible task. It does depend upon an individual's ability to interpret and weigh varying bits of information, and to apply his/her own underlying judgment policy to each situation. By applying a statistical technique such as Judgment Analysis (JAN) to the results of the survey, a single classwide or statewide policy

concerning the qualities most sought after when hiring a superintendent can be established.

JAN was devised by Christal in 1962 (Christal, 1968a) and is a special adaptation of a technique developed by Bottenberg and Christal in 1961 (Bottenberg and Christal, 1968). The JAN technique allows a rater, or judge, who is presented with a number of stimulus situations (profiles) to make a decision on each profile based on the various characteristics (cues) within the profile. By varying the intensity of the cues within each profile, a weighted policy judgment is produced by each judge. By combining the judges with the most similar policies, a new combined policy is produced that has the least loss in predictive validity over the old separate policies. By continuing to combine all policies in a similar manner, an overall policy is developed for all judges (Leonard et al., 1982).

Now the question arises as to which of the stated competencies and demographic criteria, or combination of these two, is most important when the school board is looking for a superintendent. Maybe there are several that are equally important. Perhaps different size districts in Montana have different requirements for a person to be hired as superintendent. Perhaps the gender of the school board member makes a difference. The following chapter will detail the methods to be used in this study to try to answer some of these questions.

CHAPTER 3

PROCEDURES

This chapter describes the procedures by which the data were gathered, processed, and analyzed in order to delineate the most important factors in the hiring process in the view of school board members. The major divisions in this chapter are: (1) population description and sampling procedure, (2) methodology, (3) method of data collection, (4) method of organizing data, (5) research questions, (6) research hypotheses, (7) analysis of data, and (8) precautions taken for accuracy.

Population Description and
Sampling Procedure

The Montana School Boards Association is a statewide group of men and women who are members of their local boards of education. Membership in the Association is voluntary, and those school boards who vote to join the Association are assessed a dues fee based on a certain percentage of the total general fund budget of the local school district. The state group is a subgroup of the National School Boards Association, which is similarly composed of local school board members from around the

nation. Even though membership in the state organization is voluntary, over 90 percent of the board members in districts that employ a superintendent are members of the Association (Buchanan, 1986).

The Montana School Boards Association maintains an up-to-date, accurate directory of the members of the Association which includes the address of the member, and the size of district that the member represents. This mailing list was made available to the researcher for use in this study.

By state statute, local school districts are identified as either first class, second class, or third class districts (School Laws of Montana, 1985). First class districts are defined as those school districts that have a resident population of 6,500 or more. Second class districts are defined as those school districts that have a resident population of at least 1,000 but less than 6,500. Third class school districts are defined as those school districts that have a resident population of less than 1,000. Of the 548 public school districts in Montana, 16 are identified as first class school districts, 106 are identified as second class school districts, and 426 are identified as third class school districts (Anderson, 1987). Even though there are 548 school districts in the state, only 202 employ superintendents. All of the 16 first class districts employ superintendents, as do all of the 106 second class school districts. However, only 80 of

the third class school districts employ a superintendent. The remaining 346 third class school districts are under the supervision of a "head teacher," a "teacher-principal," or the county superintendent of schools who gains his/her office through the electoral process on a countywide basis.

Since this study concerns the hiring process for superintendents, only those school board members that serve in a school district that hires a superintendent were eligible for participation. Another requirement for participation was that the local board of trustees had to be a member of the Montana School Boards Association so that the mailing list of the Association could be utilized. A proportional stratified random sample was drawn from the list of eligible board members who belong to the Association.

Due to the fact that first class school districts employ about 7.9 percent of the total number of superintendents in the state, they were represented by about 7.9 percent of the population of the survey. Second class school districts that employ about 52.5 percent of the total number of superintendents in the state were represented by about 52.5 percent of the population in the survey. Third class school districts that employ about 39.6 percent of the superintendents in the state were represented by about 39.6 percent of the population in the survey. Considering there are about 1,000 school board members in the

Association that represent a school district that hires a superintendent, some statistical method of choosing an appropriate sample size had to be utilized if the entire population was not going to be included in the survey. This researcher chose to be led by the formula developed by Cochran (1960) which takes population size into account, and allowed a .05 level of confidence to be established on a minimum sample size of 384. In this manner, Cochran's formula asserts that there is a 95 percent probability that there could be no more than a five percent error in the findings. Accordingly, a sample size of 400 was utilized in this study. By applying the varying percentages regarding superintendent employment against the sample size, the following numbers of board members from the various sized school districts were asked to participate in this study (Table 2).

Table 2. Participants in study by percentage of superintendents employed.

District Classification	Percentage of Superintendents Employed	Number of Participants in Study
First Class	7.9	32
Second Class	52.5	210
Third Class	<u>39.6</u>	<u>158</u>
Total	100.0	400

Methodology

In order to identify the factors considered most important in the superintendent selection process by school board members, a technique termed Judgment Analysis (JAN) was utilized in this study. Wherry and Naylor (1966:267) stated that judgment analysis is "based upon defining the capturing of rater policy as the extent to which one can predict the actions of a rater from the human characteristics of the data he is being required to evaluate." Houston and Stock (1969) pointed out that JAN allows the researcher to identify the policies that may be present in the decision making process of an individual or group of individuals. Christal (1968a:24) stated that "Judgement Analysis is a simple but powerful technique for identifying and describing the rating policies that exist within a board or committee of judges." Bottenberg and Christal (1968) described JAN as a method which retains maximum predictive efficiency and enables the researcher to make a complete analysis of interrater agreement.

To be able to use the JAN technique, a simulation instrument was developed. An example of this simulation instrument is found in Appendix C. It consisted of a series of protocols, or profiles, of typical applicants for the position of superintendent of schools. These protocols included an organizational skills competency, a people

centered skills competency, and the seven demographic factors determined to be important in this study. The factors varied in intensity in each profile. The simulation instrument containing the protocols was presented to a group of raters, in this case, school board members. Each rater was asked to make a judgment, or "hiring decision," for each protocol. Beach (1967) stated that the individual relationship between the variables in the protocols and their ability to keep the judge (board member) on course are their validities. "After making the criterion decisions, the judges submit their judgments for analysis by JAN" (Houston and Stock, 1969:24).

The purpose of JAN is to take a situation in which judges are rating subjects on a single attribute and through regression techniques capture the policy of each judge and iteratively cluster the judges on the bases of policy similarity (Lutz, 1977:37).

Ward (1962) noted that the early history of the behavioral sciences was limited in the amount of hypotheses that could be considered due to the lack of requisite statistical tools and high-speed computers. These statistical tools are today known as factor analysis, partial and multiple correlation, and analysis of variance. Previously, multiple regression had been used primarily with very small groups of variables for the purpose of obtaining weights which, when applied to predictors, would yield optimal predictions of observed criteria. With the new

techniques, however, the limitations on the number of variables to be considered is no longer a problem.

In a sense, a judge serves as a type of computer, receiving and synthesizing various types of data; he also determines which observations are to be given greatest weight in the system. Nonetheless the human computer is easily over-taxed and rather unreliable; hence, large-scale studies are likely to present a number of methodological problems. Judges, for example, find it difficult to maintain a consistent 'set,' or policy, when a large number of evaluations are required; the same is true when the ratings must be made over an extended period of time. Such considerations have led to applications of multiple linear regression analysis in studies of judgments that are designed to enable high-speed computers to simulate the judge (Ward, 1962:221).

The JAN process is composed of two different steps. The first step calls for a least-squares solution of a multiple regression equation for each judge. The second step involves a clustering process whereby areas of agreement and disagreement are identified among the judges.

The JAN technique starts with the assumption that each judge has an individual policy. It gives an R^2 for each individual judge and an overall R^2 for the initial stage consisting of all the judges, each one treated as an individual system. Two policies are selected and combined on the basis of having the most homogeneous prediction equations, therefore resulting in the least possible loss in predictive efficiency. This reduces the number of original policies by one and gives a new R^2 for this stage. The loss in predictive efficiency can be measured by finding the drop in R^2 between the two stages. The grouping procedure continues reducing the number of policies by one at each stage until finally all of the judges have been clustered into a single group (Houston et al., 1972:57).

The policy for each judge is represented by a regression equation and the raw score regression weights define the policy (Dudycha and Naylor, 1966). The squared multiple correlation coefficient, R^2 , is an expression of the consistency of the rater's agreement across all profiles when a separate least-squares weighted regression equation is used for each rater (Christal, 1968a). Dudycha (1970:502) stated that the "resulting R^2 value furnishes an indication of the degree to which [the rater's] behavior is predictable, or, it is the intrarater consistency of his judgments." The results of stage one provide the researcher with some indication of each judge's policy.

"Using the results from stage one, a hierarchical grouping procedure is initiated" (Houston and Stock, 1969:24). During the second stage, each equation or policy is compared with every other policy. In this manner the two judges who are in closest agreement concerning how the selection variables should be weighted are located. These two judges have the most homogeneous regression equations. A common or joint policy of the two judges is developed resulting in the least possible loss of predictive efficiency. The result is the reduction in the number of policies by one and a new R^2 . The purpose of each iteration of the second stage is to "maximize the between-group sum of squares and minimize the within-group sum of squares for all profile elements" (Ward and Hook, 1963:77).

Bottenberg and Christal (1968) reported that at each iteration stage the clustering technique should proceed in a manner that ensures the minimum loss of predictive efficiency. At each iteration, "the loss of predictive efficiency makes it possible to identify the different judgment policies that exist" (Houston and Bentzen, 1969: 74). As the process continues until its conclusion when the ratings of all of the judges have been compared to the ratings of all of the other judges, one can determine at each iteration the various policies that would exist at that point in time as well as the policy of the combined group that exists at the end of the process. If there is no apparent combined policy evident at the end of the process, one would then be able to determine the many various policies that exist among the raters.

Method of Data Collection

A simulation instrument that detailed nine variables, or protocols, was developed for use in this study. Each protocol was a simulation of the combined qualities of an applicant for the position of superintendent of schools. The administrative protocol variables were the two combined administrative competency factors determined to be important for a superintendent of schools. The two combined factors, or variables, consisted of an Organizational Skills Rating and a People-Centered Skills Rating. The

Organizational Skills Rating was a combination rating for the factors of: (1) finance/budget skills, (2) curriculum development skills, (3) planning skills, and (4) plant management/facilities development skills. The People-Centered Skills Rating was a combination rating for the factors of: (1) human relations skills, (2) public relations/community relations skills, and (3) internal management skills. The level of intensity of each variable within each protocol varied and was assigned a scale value to use in determining judgment policies as outlined by Anderson (1977).

The demographic variables (number of years of experience as a superintendent and as a principal for each applicant, level of education degree earned by the applicant, age of the applicant, gender of the applicant, and geographical background of the applicant) were also included in the simulation instrument to determine the relative importance placed on these variables in the selection of a superintendent. The demographic variables also varied in intensity and were assigned scale values in the same manner as the administrative competency factors. The scale values were generated by computer at the Montana State University Computer Center. These scale values were normally distributed throughout the simulation instrument and the intercorrelations of variable scores differed only by sampling error from the theoretical population

correlation matrix used to generate the variable intensities (Dudycha and Naylor, 1966).

The instrument was field tested by a group of veteran school board members and school board association executives, who were not a part of the general population of the study. The instrument was then revised in relation to appropriate comments received from this group.

The revised simulation instrument, along with a cover letter from the researcher, was sent to those 400 school board members who were chosen by a random process to participate in this study. A self-addressed, stamped envelope was enclosed with the survey to facilitate returns. The instrument was coded for ease of determining which participants had responded. If there was no response within two weeks after the initial mailing date, a followup postcard was sent to the participants who had not responded. If there had been no response three weeks from the initial mailing date, a final postcard reminder was sent to the non-respondents asking for them to participate in the study. If no response had been received four weeks after the initial mailing date, the non-responding board member was considered a non-participant in this study. At the conclusion of the study a total of 221 valid responses had been received.

Method of Organizing Data

The data in this investigation were in the form of a Judgment Analysis of the 72 "hiring decisions," or ratings, made by each of the school board members in the study. Tables were used for the following sets of data: (1) list of independent variables, (2) means and standard deviations for protocol variables, (3) means and standard deviations for each rater's criterion rating, (4) intercorrelations between protocol variables, (5) stages of judgment analysis for participating raters, and (6) hierarchy of profile variables using standard score regression weights.

Table 3 illustrates the nine independent variables used in this study, and the acronym or abbreviation given to each by which each will be referred to in later tables.

Table 3. List of independent variables.

No.	Variable	Abbr.
1	Organizational Skills Rating of applicant	OSR
2	People-Centered Skills Rating of applicant	PCR
3	Age of applicant	AGE
4	Number of years experience as superintendent	SUP
5	Number of years experience as principal	PRN
6	Gender of applicant	GEN
7	Highest degree earned by applicant	DEG
8	Current job title of applicant	JOB
9	Current location of job held by applicant	LOC

Table 4 details the means and standard deviations of the numerical scale values for each of the independent variables used in this study. The means and standard deviations for each rater's criterion rating are found in Tables 24 through 28 in Appendix A.

Table 4. Means and standard deviations of numerical scale values for the independent variables.

Variable	Mean	Standard Deviation
1 OSR	56.39	26.05
2 PCR	57.50	26.29
3 AGE	43.64	9.24
4 SUP	4.79	5.07
5 PRN	4.64	3.51
6 GEN	1.56	0.50
7 DEG	1.50	0.50
8 JOB	1.82	0.96
9 LOC	1.56	0.50

Table 5 depicts the intercorrelations among the independent variables that were used in this study. The intercorrelations between the judge's ratings and the profile variables are available from the researcher. They were not included in the appendices due to their extreme length.

Table 5. Intercorrelations among the independent variables.

Variable	1	2	3	4	5	6	7	8	9
1 OSR	1.00	-.08	.14	-.23	.17	-.07	-.16	.06	.09
2 PCR	-.08	1.00	.16	.21	.10	-.22	.12	-.06	-.02
3 AGE	.14	.16	1.00	.60	.62	.03	.02	-.26	.10
4 SUP	-.23	.21	.60	1.00	.24	-.06	.04	-.49	.11
5 PRN	.17	.10	.62	.24	1.00	-.04	.07	-.16	.09
6 GEN	-.07	-.22	.03	-.06	-.04	1.00	-.06	.04	-.07
7 DEG	-.16	.12	.02	.04	.07	-.06	1.00	.01	-.22
8 JOB	.06	-.06	-.26	-.49	-.16	.04	.01	1.00	-.08
9 LOC	.09	-.02	.10	.11	.09	-.07	-.22	-.08	1.00

Restatement of the Research Questions

Question 1: Was there more than one policy used by school board members in each of the three district classification sizes when determining which of the variables were most important when hiring a superintendent?

Question 2: Did the school board members in each of the three district classification sizes perceive a difference in the importance of any of the variables when making their decision to hire a superintendent?

Question 3: Was there more than one policy used by male and female school board members when determining which of the variables were most important when hiring a superintendent?

Question 4: What importance was placed on each of the variables by the male and female school board members when making their decision to hire a superintendent?

Analysis of Data

The computer services of the Montana State University Testing Center were used to perform the multiple regression analysis utilized in the JAN technique. As chosen by Keelan et al. (1973), Mabee (1978), and others, an a priori drop of .05 in R^2 from one stage to the next stage was used as a minimum to determine a significant change in rater policy.

Precautions for Accuracy

Data entry before processing the program accounted for a great degree of error control. By reviewing the printout of the data for possible errors, and making necessary corrections, the researcher reduced other errors that could have resulted due to poor data entry.

CHAPTER 4

ANALYSIS OF DATA

Introduction

The data reported in this chapter are arranged in the following categories: populations and samples, research questions, and summary.

Populations and Samples

The sample population that served as the focus of this study was the school board members in the various sized school districts in the state of Montana. All members of the sample population received the survey instrument. For purposes of analysis, the population was divided into three different categories of school board members according to the statutory size of school district in which they served, and by gender of respondent.

A total of 400 school board members were selected to receive the simulation instrument. The number of valid responses received was 221, and all were utilized in this study. The 221 responses indicate an overall return rate of 55.3 percent. Considering that each respondent had to make 72 judgments, the total number of judgments, or hiring

decisions for a superintendent, amounted to 15,912 for this study.

In the first class school districts, there was a total of 17 returns to the 32 total surveys sent out. In the second class school districts, there were 129 returns to the 210 surveys sent out. In the third class school districts, 75 returns were received from the 158 surveys sent out.

Of the total 400 school board members who were surveyed, 300 were male and 100 were female. Of the 300 male school board members surveyed, 151 responded. Of the 100 female school board members surveyed, 70 responded.

Research Questions

The research questions in this study were tested using the Judgment Analysis (JAN) technique. The JAN technique begins with the assumption that each judge (school board member) has an individual policy on the hiring of a superintendent. The standard beta weights, in the prediction equation for each policy, indicate the importance of each variable as expressed by the board member. The R^2 value indicates the consistency of the rater's policy.

Due to the length of the tables that were generated during the JAN procedure, and the subsequent problems that they presented when trying to incorporate them into the body of this study, the majority of the tables have been

placed in Appendix A to facilitate ease and understanding of this study. Each school board member in the various size districts has his/her policy represented in terms of standard beta weight values in tables identified as "Policies (beta weights) for individual raters." This information is located in Tables 14, 16, 18, 20, and 22 in Appendix A. Tables 15, 17, 19, 21, and 23, identified as "Stages for the JAN procedure," show the hierarchical grouping of school board member judgments into clusters at significant stages of the JAN process. Tables 24, 25, 26, 27, and 28 show the mean and standard deviation of the judgments of each board member.

Research Question 1

Was there more than one policy used by school board members in each of the three district classification sizes in determining which of the variables were most important when hiring a superintendent?

School board members in the study used a set of nine variables in determining a rating that was given for hypothetical superintendent applicants. The purpose was to determine if the school board members in each of the different size school districts made their decisions on how to rate each superintendent applicant in a similar manner, or if they combined the profile cues into a variety of decision making patterns.

Table 14 in Appendix A shows the individual policies of each school board member in the first class districts. The decimal numerals are the standard beta weights. How each judge makes use of each variable is indicated by the magnitude of the decimal number in its deviation from zero. Table 14 reveals, for example, that judge (school board member) number one placed the most weight or importance on profile cue 2 (people-centered skills) when making his/her rating or hiring decision. The second greatest importance was placed on profile cue 1 (organizational skills). The third most important factor, although in a negative manner, was profile cue 8 (current job title). The small positive or negative ratings that are near zero, as found in profile cues 5, 6, 7, and 9, indicate that this judge did not use the information found in these cues to any great degree. It is impossible to tell if this judge merely ignored the information in these cues, or if the rater found them to be unimportant in making his/her judgment on the applicants. Profile cues 3 and 8 show strong negative numbers. This indicates that this judge tended to treat information in these areas in a negative manner in the selection process.

Table 14 also shows that most of the members of first class school districts had a consistent policy. Thirteen of the 17 first class district board members had an R^2 of .6142 or above. Judge number nine showed an extremely poor consistency in his/her rating by establishing an R^2 of only

.2729. The next lowest R^2 was established by judge number 10 with a .4609. All of the other judges in the first class districts were above these two judges with their ratings. The range for the individual rating consistencies (R^2) among first class school district board members was from .2729 to .8696, or a total range of .5967, which was the smallest range found in this study.

Table 14 represents the first of two different steps in the JAN process. The second step of the process involves a clustering of the judges' individual policies so that areas of agreement and disagreement are identified. During this second stage each equation or policy is compared with every other policy. In this manner the two judges who are in closest agreement concerning how the selection variables should be weighted are located. A common or joint policy of the two judges is developed resulting in the least possible loss of predictive efficiency. The result is the reduction in the number of policies by one and a new R^2 . The purpose of each iteration of the second stage is to "maximize the between-group sum of squares and minimize the within-group sum of squares for all profile elements" (Ward and Hook, 1963:77). The result of this second stage process for first class district school board members appears as Table 15 in Appendix A.

Table 15 in Appendix A shows that at stage one in first class school districts, where each rater is considered a single system, the R^2 value indicated an above average level of consistency in each judge's policy. As indicated, the R^2 drop at each successive stage of the grouping process was rather slow. There was no successive drop of .05 or more in predictability, as found in R^2 , until stage 16 in the process. At this stage a drop of .0596 in R^2 occurred, indicating that two distinct policies existed among first class district school board members, one group consisting of eight members and another group consisting of nine members. Table 6 illustrates the data from the first class school district board members.

Table 6. Stages for judgment analysis procedure for first class school district board members.

Stage	No. of Policies	Rater	R^2	Successive R^2 Drop
1	17	Single Member Policies	.7008	----
16	2	Policy Number 1: (1,2,3,5,10,12,13,16)	.4981	.0596
		Policy Number 2: (4,6,7,8,9,11,14,15,17)	.3904	----
17	1	Single Group Policy (1-17)	.4067	.1167

The R^2 value at stage 16 shows that 39 and 49 percent of the variance was accounted for by using the two policies

present at stage 16. When the two policies are combined into one policy at the final iteration, just over 40 percent of the variance can be accounted for at this stage. These data show that for board members in first class school districts, two policies or rankings existed for the variables important in the hiring of a superintendent.

The two separate policies identified among school board members in first class school districts in Table 6 need closer review to determine the membership of the two groups. Table 7 shows the two policies for board members in first class school districts. These policies are represented by beta weights which have been rounded off to the nearest hundredth. The values below the row that are in parentheses indicate the ranks of each variable as judged by the differing groups of board members. The ranking values were determined by using the beta weight values before rounding off, and results in the appearance that some rankings are "tied" with other rankings, which is not true. This rounding effect occurs in other tables as well.

Table 7 shows that group one felt that profile cue 1 (organizational skills) was the most important profile cue, with profile cue 4 (number of years as a superintendent) the second most important criteria in the superintendent selection process. Group one felt that the third most important criteria was profile cue 2 (people-centered

Table 7. Differentiated policy (beta weights) for board members in first class school districts.

Group	Profile Cues									R ²
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
1 Rank	.52 (1)	.19 (3)	-.07 (7)	.25 (2)	.01 (9)	.13 (5)	.13 (4)	-.11 (6)	.04 (8)	.4981
2 Rank	.41 (1)	.16 (4)	-.13 (7)	.26 (2)	.14 (5)	-.12 (8)	.16 (3)	-.13 (6)	-.03 (9)	.3904

skills), and that profile cues 6 and 7 (gender of the applicant and highest degree earned by the applicant) were the next two most important cues. Group two agreed with group one about the order of importance of the first two profile cues (organizational skills and number of years as a superintendent), but not on the order of importance of profile cues 3, 4, and 5. The third most important criteria, according to group two, was profile cue 7 (highest degree earned by the applicant), and the fourth most important criteria was profile cue 2 (people-centered skills). Group two felt that profile cue 5 (number of years of experience as a principal) was the fifth most important consideration when selecting a superintendent. The major difference between groups one and two among first class district board members is that group one felt that the gender of the applicant was an important enough criteria to be in their top five considerations, but group

two felt that the number of years experience as a principal was more important to them to be in their top five criteria. Group one felt that number of years experience as a principal was the least important when ranking their criteria, while group two ranked the gender of the applicant as next-to-last in importance. With the completion of the analysis of school board members in first class school districts, one can now turn to an analysis of second and third class school district board members.

Table 16 in Appendix A shows the individual policies of school board members in second class school districts. This table indicates that second class school district board members had the greatest range of consistency in the individual board members' R^2 for the nine profile cues. Judge number 42 had the lowest consistency with an individual R^2 of only .2289, the lowest found in this study. Judge number 32 had an individual R^2 of .9654, which gave the second class school district board members an individual policy R^2 range of .7365. However, 91 of the 129 judges in this class had an individual R^2 of .6048 or higher.

The second stage of the JAN process for second class school district board members is shown in Table 17 in Appendix A. This table indicates that second class school district board members had an even higher consistency at stage one than did their first class district counterparts.

The combined R^2 for the entire group was .7373. As was found in the first class districts, the successive drop in R^2 at each stage was rather slow. In contrast to school board members in first class districts, those school board members in second class districts never had a drop in R^2 of .05 or more at any one stage until the final grouping of all members into a single policy. This indicated that there was only one policy shared by all school board members in second class districts. As the data in Table 17 under the R^2 indicate, the final iteration can only account for 42 percent of the variance at the final stage among second class district school board members.

Table 18 in Appendix A illustrates the individual beta weights for each board member in the third class school districts. Fifty-three of the 75 judges in the third class school districts had an individual R^2 of .6038 or above, with the range in R^2 for this class being from .3007 for judge number 14 to .9967 for judge number 61, which was the highest individual R^2 found in this study. The total range for board members in third class districts was .6960, which fell in between the range found in the other two classifications of districts.

The clustering of the raters in third class school districts is found in Table 19 in Appendix A. This table, representing school board members from third class school districts, shows the highest R^2 at stage one of any of the

groups in the study. The single system rating for this classification was .7600. As was the case with second class school district board members, those in third class districts never evidenced a successive drop in predictability of .05 or more at any one stage until the grouping at the final stage. This indicated that third class school board members also shared a common policy when it came to considering those variables important in the hiring of a superintendent. The data indicate that almost 41 percent of the variance is accounted for among third class school board members at the final stage.

School board members in second and third class school districts did not evidence a significant drop in R^2 at any point during the process that would indicate the existence of more than one policy when it comes to the selection of a superintendent.

The answer to research question one, then, is that Table 6 indicates that two policies exist among school board members in first class school districts in determining which of the variables were most important when hiring a superintendent. Table 7 shows where the varying degrees of importance were placed by each of the two groups in the first class school districts. Tables 17 and 19 in Appendix A show that school board members in the second and third class school districts did not use more than one policy in

determining which of the variables were most important when hiring a superintendent.

Research Question 2

Did the school board members in each of the three district classification sizes place a unique importance on any of the variables in making their decision to hire a superintendent?

In order to determine if school board members in each of the three classification sizes perceived that all of the variables in superintendent selection were equal, or if they judged one of the variables to be more important than the others, the judgment analysis (JAN) technique was applied to the data. This allowed the researcher to determine what importance each classification size of school district placed on each of the nine variables in this study. Table 8 illustrates the findings.

The policies of the three groups shown in Table 8 reflect many similarities, as well as some basic differences. The values below the row that are in parentheses indicate the ranks of each variable as judged by the differing groups of board members.

Table 8 indicates that board members in each of the three classification sizes placed a unique importance on the variables when making their decision to hire a superintendent. School board members in first and third class

districts agree that the three most important profile cues when selecting a superintendent are, in order, profile cue 1 (organizational skills), profile cue 2 (people-centered skills), and profile cue 4 (number of years experience as a superintendent). Members of these two groups agreed that profile cues 3 and 8 were the next most important, but disagree on the order. First class district board members believe that the fourth most important criteria, in a negative sense, is profile cue 8 (current job held by the applicant), while third class district board members rated profile cue 3 (age of the applicant) as the fourth most important criteria. When selecting the fifth most important criteria, first class board members selected age of the applicant, while third class district board members settled for current job held by the applicant.

Table 8. Combined policy (beta weights) for all board members in first, second, and third class districts.

Dist. Class No.	Profile Cues									R ²
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
I Rank	.50 (1)	.47 (2)	-.12 (5)	.23 (3)	.08 (7)	-.06 (9)	.08 (6)	-.13 (4)	.07 (8)	.7008
II Rank	.57 (2)	.59 (1)	.51 (3)	-.09 (5)	.09 (6)	-.09 (7)	.07 (8)	-.13 (4)	-.07 (9)	.7373
III Rank	.59 (1)	.49 (2)	-.14 (4)	.15 (3)	.08 (8)	-.08 (7)	.06 (9)	-.10 (5)	-.09 (6)	.7600

Table 8 also illustrates the combined beta weights of the board members from all three district classification sizes. It shows that second class district school board members felt more strongly about their top three choices than did either first or third class district school board members, as evidenced by strong beta weight values for all three of their top choices. The factor of age was viewed as a slightly negative influence by first and third class school district board members, and all three groups felt that the current position held by the applicant was a slightly negative influence on their decision when hiring a superintendent. Other factors were considered to a lesser extent by school board members in all size districts when hiring a superintendent.

Second class school district board members felt that profile cue 2 (people-centered skills) was the most important variable when selecting a superintendent. They also judged that cue 1 (organizational skills) was the second most important criteria. Age of the applicant, profile cue 3, was the third most important to this group of board members. Their fourth and fifth most important criteria for consideration when selecting a superintendent were profile cue 8 (current job held by the applicant) and profile cue 4 (number of years experience as a superintendent), respectively.

For all three groups, profile cues 5 (number of years experience as a principal), 6 (gender of the applicant), 7 (highest degree earned by the applicant), and 9 (location of the current job held by the applicant) had beta weights of .09 or less, and were considered insignificant by the judges when determining the most important criteria in the superintendent selection process.

The reader is reminded of the previous discussion concerning the fact that two different policies were evident among first class school district board members. When the data from Table 7 are considered with Table 8, the results are somewhat dissimilar to the findings in the above paragraphs. Table 9 shows the effects of grouping the two policies found in first class districts with the single policies found in the second and third class districts.

The data in Table 9 show that three of the four identified policy groups among the school districts believe that profile cue 1 (organizational skills) should receive the highest consideration when selecting a superintendent. Only the policy group among the second class district board members believed that profile cue 2 (people-centered skills) should be considered before profile cue 1, and this was only by a slight margin of .02 comparative beta weight. Members of both policy groups among first class district board members believed that profile cue 4 (number of years

Table 9. Combined policy (beta weights) for all identified policies in first, second, and third class school districts.

Dist. Class No.	Profile Cues									R ²
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
I (Gp 1) Rank	.52 (1)	.19 (3)	-.07 (7)	.25 (2)	.01 (9)	.13 (5)	.13 (4)	-.11 (6)	.04 (8)	.4981
(Gp 2) Rank	.41 (1)	.16 (4)	-.13 (7)	.26 (2)	.14 (5)	-.12 (8)	.16 (3)	-.13 (6)	-.03 (9)	.3904
II Rank	.57 (2)	.59 (1)	.51 (3)	-.09 (5)	.09 (6)	-.09 (7)	.07 (8)	-.13 (4)	-.07 (9)	.7373
III Rank	.59 (1)	.49 (2)	-.14 (4)	.15 (3)	.08 (8)	-.08 (7)	.06 (9)	-.10 (5)	-.09 (6)	.7600

experience) should be the second highest consideration, while second class district board members thought that profile cue 1 (organizational skills) was the second most important, and third class district board members indicated that profile cue 2 (people-centered skills) was the second most important. When the size classifications are considered as a whole, it is evident that first class district board members place a much higher emphasis on number of years of experience as a superintendent when making their hiring decision. This is offset in the second and third class districts which place a much higher emphasis on people-centered skills than do their first class district counterparts. Further comparisons can be made by the

reader with the information provided in Table 9, and further comparisons will not be detailed here since it would be repeating summaries offered earlier in this chapter.

Research question two is answered by the information found in Tables 8 and 9, which shows that board members in each of the three district classification sizes did place a unique importance on the nine variables when making their decision to hire a superintendent. Table 8 shows the varying degrees of importance placed on the variables by board members in the three districts when each group is considered as having one policy for the whole group. Table 9 illustrates the different emphases placed on the variables when each identified policy group within the three classification sizes is shown with their unique beta weights.

Research Question 3

Was there more than one policy used by male and female school board members when determining which of the variables were most important when hiring a superintendent?

The survey instruments used in this study were coded in such a way that it was possible to determine the gender of the judge. These subgroups were studied to determine if the school board members in each gender made their decisions on how to rate each superintendent applicant in a

similar manner, or if they combined profile cues into a variety of decision making patterns.

Table 20 in Appendix A shows the individual policies of each male school board member. This table reveals that there was a consistency among the male board members in their beta weights for all nine of the profile variables. One hundred seven out of the total of 151 male judges had an R^2 of .6013 or above, while only two of the judges had an R^2 under .3000. A wide range was evident among the male judges, with the lowest judge having an R^2 of .2631 and the highest male judge having an R^2 of .9967, which was the highest R^2 of any judge in this study. The range in R^2 of this group was .7336.

As was stated in response to research question one, the individual beta weights for the judges are only the first step of the two-step JAN process. Table 21 in Appendix A shows the results of the clustering process for the individual policies to detect areas of agreement and disagreement with all of the other judges in this category.

Table 21 in Appendix A shows that at stage one among male school board members, where each rater is considered a single system, the R^2 value of .7383 indicated a fairly high level of consistency in each judge's policy. This indicates that each rater had a fairly common idea of what items were important when considering the variables important when hiring a superintendent. Significantly, the

R² drop at each successive stage, or iteration, of the grouping process was rather slow. There was no successive drop in the R² value of .05 or more in predictability until the final iteration when all policies were grouped into one single policy. This indicated that there was only one policy shared by all male school board members. As the data indicate, 42 percent of the variance can be accounted for at the final stage.

Table 22 in Appendix A illustrates the individual beta weights for each female school board member in this study. Fifty of the 70 judges among female school board members had an individual R² of .6038 or above, with the range for this group being from a low R² of .2289 to a high R² of .9809, a range of .7520, which was the largest range of any group in this study.

The clustering of the individual female school board members' policies to find areas of agreement and disagreement with other raters in this group resulted in Table 23 in Appendix A. This table shows that at stage one, where each judge is considered a single system, a fairly high R² of .7522 existed. There was no successive drop of .05 or more in predictability, as found in R², until stage 69 of the process. At this stage a drop of .0518 in R² occurred that indicated that two policies existed among the female school board members. Table 10 illustrates the data from

the female school board members that show the existence of the two policies.

Table 10. Stages for judgment analysis procedure for female school board members.

Stage	No. of Policies	Rater	R ²	Successive R ² Drop
1	70	Single Member Policies	.7522	----
69	2	Policy Number 1: (1,2,17,20,24,27,37,38, 39,45,50,67)	.3393	.0518
		Policy Number 2: (3,4,5,6,7,8,9,10,11, 12,13,14,15,16,18,19, 21,22,23,25,26,28,29, 30,31,32,33,34,35,36, 40,41,42,43,44,46,47, 48,49,51,52,53,54,55, 56,57,58,59,60,61,62, 63,64,65,66,68,69,70)	.5089	----
70	1	Single Group Policy (1-70)	.4104	.1406

Table 23 in Appendix A shows that the R² value at stage 69 shows that over 55 percent of the variance was accounted for by using the two policies present at stage 69. When the two policies are combined into one policy at the final iteration, just over 41 percent of the variance can be accounted for at this stage. These data show that two policies exist for female school board members for the variables important in the hiring of a superintendent.

The two separate policies that existed among female school board members as shown in Table 10 need further review if one is to discover what the two different policies are that exist among these board members. Table 11 shows the differentiated policies, or beta weights, for the female school board members.

Table 11. Differentiated policy (beta weights) for female school board members.

Group	Profile Cues									R ²
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
1 Rank	.44 (1)	.11 (5)	-.10 (6)	.22 (2)	.01 (9)	-.17 (3)	.09 (7)	-.15 (4)	-.04 (8)	.3393
2 Rank	.55 (1)	.18 (2)	-.08 (6)	.17 (3)	.01 (9)	-.13 (4)	.09 (5)	-.07 (7)	-.02 (8)	.5089

Table 11 shows that group one, which was composed of 12 members, felt that profile cue 1 (organizational skills) was the most important profile cue, with profile cue 4 (number of years experience as a superintendent) the second most important criteria in the superintendent selection process. Group one also felt that the third most important criteria was profile cue 6 (gender of the applicant), although this was viewed as a negative factor in the process. This group determined that profile cue 8 (current job held by the applicant) was fourth highest in importance, but again in a negative manner, and that profile cue

2 (people-centered skills) was the fifth most important consideration.

Group two, which contained 58 members, agreed with group one that profile cue 1 (organizational skills) should receive the highest consideration when hiring a superintendent, but felt that profile cue 2 (people-centered skills) should be the second most important criteria. This group thought that the third most important factor was profile cue 4 (number of years experience as a superintendent), and the fourth highest consideration should be given to profile cue 6 (gender of the applicant), but they did agree with group one that this profile cue should be viewed in a negative manner. The fifth highest concern of group two was profile cue 7 (highest degree earned by the applicant).

The answer to research question three is that Table 10 indicates that more than one policy was used by female school board members in determining which of the variables were most important when hiring a superintendent. Table 11 shows where the varying degrees of importance were placed by each of the two groups among female school board members. Table 21 in Appendix A shows that male school board members did not use more than one policy in determining which of the variables were most important when hiring a superintendent.

Research Question 4

What importance was placed on each of the variables by the male and female school board members in making their decision to hire a superintendent?

In order to determine if both male and female school board members perceived that all of the variables were equal, or if they judged one of the variables to be more important than the other, the JAN technique was applied to the data. This allowed the researcher to determine what importance each group placed on each of the nine variables presented in this study. Table 12 illustrates the findings.

Table 12. Combined policy (beta weights) for all board members (male and female).

Gender	Profile Cues									R ²
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
Male Rank	.59 (1)	.47 (2)	.13 (4)	.15 (3)	.08 (6)	.08 (7)	.07 (9)	.11 (5)	.08 (8)	.7383
Female Rank	.57 (1)	.49 (2)	.10 (5)	.15 (3)	.07 (9)	.08 (6)	.07 (8)	.11 (4)	.07 (7)	.7522

Table 12 illustrates that male and female school board members were in fairly close agreement on the ranking, and strength of their ranking, of organizational skills as the most important criteria, of people-centered skills as the second most important criteria, and of number of years

experience as a superintendent as the third most important criteria when selecting a superintendent. Male school board members felt that the factor of age was the fourth most important criteria, while female members felt that the current job title of the applicant was the fourth most important criteria. The two groups reversed those two categories when selecting the fifth most important criteria when selecting a superintendent. Profile cues 5 (number of years experience as a principal), 6 (gender of the applicant), 7 (highest degree earned by the applicant), and 9 (location of current job held by the applicant) all received beta weight scores less than .10, which indicated that neither group considered these factors significant in the selection process.

As occurred among first class district board members, two different policies were evident among the female school board members. When the data from Table 11 are considered along with the data from Table 12, a somewhat different picture appears. Table 13 shows the effects of grouping the two policies found among female school board members with the single policy found among male school board members.

The data in Table 13 show that all three policy groups believe that profile cue 1 (organizational skills) should have the highest priority in the superintendent selection process. Two of the groups, male school board members and

Table 13. Combined policy (beta weights) for all identified policies among male and female school board members.

Group	Profile Cues									R ²
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
Male Rank	.59 (1)	.47 (2)	.13 (4)	.15 (3)	.08 (6)	.08 (7)	.07 (9)	.11 (5)	.08 (8)	.7383
Female (Gp 1) Rank	.44 (1)	.11 (5)	-.10 (6)	.22 (2)	.01 (9)	-.17 (3)	.09 (7)	-.15 (4)	-.04 (8)	.2523
(Gp 2) Rank	.55 (1)	.18 (2)	-.08 (6)	.17 (3)	.01 (9)	-.13 (4)	.09 (5)	-.07 (7)	-.02 (8)	.3160

group two of the female school board members, believe that profile cue 2 (people-centered skills) should be considered as the second highest priority and that profile cue 4 (number of years experience as a superintendent) should be the third highest. The male school board members felt that the fourth highest criteria should be profile cue 3 (age of the applicant), and the fifth highest criteria should be profile cue 8 (current job held by the applicant). Group two of the female board members differed from male school board members on the ranking of items for the fourth and fifth highest criteria. This group felt that the fourth highest item considered should be profile cue 6 (gender of the applicant), and the fifth highest priority should be

given to profile cue 7 (highest degree earned by the applicant).

Group one of the female school board members had an entirely different view of the criteria after agreeing with the other two groups about the selection of profile cue 1 as the most important. This group felt that the second most important criteria should be profile cue 4 (number of years experience as a superintendent), the third most important criteria should be profile cue 6 (gender of the applicant), the fourth highest criteria should be profile cue 8 (current job held by the applicant), and the fifth highest criteria should be profile cue 2 (people-centered skills). Other profile cues received a beta weight of .10 or less and were not given significant value by the raters in any of the groups.

Research question four is answered by the information found in Tables 11, 12, and 13, which shows the varying degrees of importance placed on each of the variables by the male and female school board members in this study. There was unanimous agreement that profile cue 1 (organizational skills) should receive the priority in the superintendent selection process. There was near unanimous agreement that profile cue 2 (people-centered skills) should be the second highest consideration, as there was near unanimous agreement that profile cue 4 (number of years experience as a superintendent) should receive the

third highest consideration. After this point, there was mixed reaction about the degree of importance of the remaining profile cues.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

Four hundred Montana school board members were solicited to participate in this survey on what variables were most important in the superintendent selection process. The answers provided by the 221 respondents were subjected to Judgment Analysis in order to determine with some statistical validity the ranking they gave to each of the nine variables.

The school board members who participated in this study were fairly consistent in their judgment patterns when selecting the variables that were important in the hiring of a superintendent. The initial R^2 for the five main groups ranged from .7008 in the first class districts to .7600 in the third class school districts. All of the five main groups but one, board members in second class school districts, agreed that the most important criteria in the superintendent selection process was organizational skills. All of the five main groups but one, board members in second class school districts, agreed that the second most important criteria in the selection process was

people-centered skills. Second class school district board members, by a narrow margin, felt that the top two rankings should be in the opposite order to that stated above.

When the two subgroups are considered among the first class district board members and the female board members, there is still near unanimous agreement that profile cue 1 (organizational skills) ranks as the highest consideration in the selection process. The second highest ranking profile cue, even considering all groups, was that involving people-centered skills, followed closely by the profile cue dealing with number of years experience as a superintendent. The profile cue dealing with number of years experience as a superintendent was the highest rated demographic variable. Beyond this point, opinions tended to splinter into many different directions and unanimity was lacking.

Of the seven demographic variables presented to the raters, with the exception of the number of years experience as a superintendent, the variables of age of the applicant and current job title of the applicant seemed to be the most important to the judges. The demographic variables concerning number of years experience as a principal, gender, highest degree earned, and geographical location of the current job seemed to have little influence on the decisions made by school board members involved in this study.

School board members in the three different size school districts in Montana demonstrated a wide range of variation in this decision making simulation dealing with the hiring of a superintendent. Individually, school board members showed an amazing disparity in their ability to maintain a consistent policy throughout the selection process. The range was from a third class district male board member who was a modicum of consistency by establishing an R^2 of .9967 through the selection process, while a female second class district board member could only achieve an R^2 of .2289 after reviewing and judging the 72 profiles. The drop in predictability for each of the five groups varied greatly with board members in the first class districts recording the smallest cumulative drop of .2941, but this group also started with the lowest beginning R^2 of .7008. All five groups ended with only 40 to 42 percent of the variance accounted for when all policies were combined into one.

Conclusions

- (1) The fact that three of the groups exhibited a single judgment policy when selecting a superintendent while the other two groups exhibited at least two judgment policies is ameliorated somewhat by the knowledge that four of the five groups agreed on which one variable was most important in the process. Tables 8 and 10

showed that school board members used the variable of organizational skills of the applicant as the major influence in their decision making process. Board members were almost unanimous in believing that people-centered skills were the second most important factor. Board members in second class school districts had the order of these two variables reversed in their opinion. This contradicts the findings of Vigil (1977) and Cunningham and Hentges (1982) who found that personal characteristics were the primary reasons for superintendent selection. It reaffirms the findings of Powell (1982) who found that professional-technical competencies rank ahead of interpersonal relations skills in the selection process.

- (2) The cue regarding the age of the applicant made a unique contribution only among second class district board members where it was the third most important criteria in the selection process. In fact, it was only slightly below the ranking given to their top two criteria: people-centered skills and organizational skills. The high degree of importance given to this cue may be due to the fact that second class districts have traditionally been the "stepping stone" districts of Montana for superintendents who are "upwardly mobile." In these districts administrators polish

their skills before moving on to positions with schools in the first class school districts. If this is a valid assumption, and board members accept this role, then they would be looking for superintendents who have spent a few years in a smaller school district before applying for a position in the second class school district. Age would then become a factor in the selection process due to the fact that most superintendents follow a somewhat typical career pattern of teaching for several years before gaining an advanced degree and entering the field of administration. This would tend to support the research of Connor et al. (1978) that concluded that there was no clear difference in the assessment of old and young job applicants when it comes to the job interview. Applicants in Montana school districts are chosen on the basis of a career path rather than the factor of age.

- (3) Four of the groups placed a relative degree of importance on the cue dealing with number of years of experience as a superintendent, perhaps for the same reason as the second class districts valued the age of the applicant as an important cue. In first class school districts, it was ranked quite highly compared to the other groups. This could be because of the demand of this size of school district for experience.

as a superintendent in other, smaller school districts before one is thought to be capable of performing in a first class school district.

- (4) None of the groups rated experience as a principal as a very important factor in the superintendent selection process. This may be due to a range of opinion that the two roles have little in common at the first class district level to the opinion that, in many cases at the third class district level, the one who is hired to be the superintendent will also perform the duties of principal and these duties are one and the same.
- (5) Cue number 6, which dealt with the gender of the applicant, seemed to have little effect on board members in any of the categories. Hopefully, this is due to the belief that gender is not a determining factor in perceived ability to do the job. It is interesting to note, however, that when one examines the policy of female board members in this study, the negative beta weights on the gender cue indicate that female applicants for superintendent would be judged most harshly by members of their own gender.
- (6) The profile cue that indicated the highest degree earned by the applicant received the highest amount of interest from board members in first class school districts. This would seem appropriate in that these

districts are generally requiring an earned doctorate before one is considered for the position of superintendent at this level. The question arises, however, that if it is being required at that level, will it be long before second class districts also see it as a requirement?

- (7) The criteria dealing with the current job held by the applicant received the most interest from board members in the first and second class school districts. The current job title would be important to those board members who believe that experience of a similar nature is necessary before being able to handle the duties of being their superintendent. It would not be important to the board member who sees his/her school district as a first place of employment for an administrator. Thus it was that board members from the larger districts saw the current job as important while third class board members viewed it as less important. The criteria that dealt with the location of the current job received little interest from any of the board members.

Recommendations

This study used broad-based categories for the two main descriptors: organizational skills and people-centered skills. It would be valuable to do further

research among Montana school board members to establish the relative importance of the skills within each of the two categories.

It would also be valuable to replicate this study using board members from other states. In this way, one could determine if Montana school board members are unique in their judgment of the criteria important in superintendent selection. This would also be helpful to the training institutions as they try to prepare their students for employment beyond the boundaries of this state.

Finally, a study of school administrators in Montana regarding their perceptions of what they believe are the important criteria in the selection process would help board members understand the complete cycle of selecting a superintendent.

The data from this study should have an impact on several groups. For those who aspire to be superintendents in Montana school districts it places an increasing burden on the applicant to be able to prove that s/he has the technical skills to do the job. Interpersonal relations are apparently secondary in nature to most school board members. For those in the institutions that train school administrators, the implication is that there should be a growing emphasis on the "nuts and bolts" of being a superintendent in the areas of curriculum, finance, facilities management and building construction and remodeling.

For scholars in the field of educational administration who seek to determine how people use many bits of information to make decisions, they will find the JAN technique worthy of consideration. For others who have studied the relative importance of the factors that school board members value when selecting a superintendent, this study adds to the body of knowledge and reconfirms that organizational skills and people-centered skills remain the two most important criteria. The order of importance of these two factors remains subject to debate and further research.

For practicing administrators it is becoming obvious that educational training beyond the typical master's degree is necessary if one wants to be employed by a first class school district. The new training standards promulgated by the State Board of Public Education that demand 30 hours beyond the master's degree for the superintendent certification in 1991 and beyond are a harbinger of things to come. Most of the other states already demand a higher level of training than Montana requires and, if the superintendent desires to leave the state, s/he will find job opportunities practically non-existent at the chief executive level without an Ed.S., Ed.D., or Ph.D. degree.

For school board members in Montana it is apparent that there is an increasing emphasis being placed on the business side of education as the appropriate function of

the superintendent. Montana school board members are mainly interested in superintendents "who can run the school," and seem to feel that there will either be someone else in the organization to take care of staff concerns, or that they are secondary to the daily operation of the district. While it is true that millions of dollars have been spent on local facilities, the "human" side of the operation must not be neglected in the daily life of the Montana school system.

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APPENDICES

APPENDIX A

TABLES 14-28

Table 14. Policies (beta weights) for individual school board members in first class school districts.

Judge	Profile Cues									R ²
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
1	.48	.54	-.19	.24	.09	-.01	.01	-.37	.02	.6889
2	.51	.39	-.15	.54	.12	-.03	.03	-.15	.00	.6836
3	.67	.42	-.06	.18	-.01	-.08	.15	-.10	.09	.6322
4	.28	.15	-.18	.43	.11	-.20	.06	-.42	-.32	.6370
5	.52	.50	.00	-.01	.02	-.12	-.05	.08	.01	.5435
6	.62	.51	.06	-.03	-.02	-.05	.02	-.04	.04	.6316
7	.38	.45	-.26	.19	.26	-.09	.08	-.20	-.05	.4787
8	.50	.79	-.11	.09	.18	.06	.05	.10	.00	.8317
9	.30	.19	.15	.18	-.05	.05	.24	.02	.19	.2729
10	.43	.25	-.18	.62	-.02	-.11	.01	.01	.01	.4609
11	.70	.54	-.04	.18	.04	.01	.17	.04	.10	.7565
12	.62	.42	-.34	.10	.15	.04	.09	-.39	.09	.6226
13	.52	.51	-.04	.43	-.01	-.08	.06	-.08	.12	.7395
14	.57	.65	-.04	.15	.08	-.12	.09	-.21	-.06	.8696
15	.65	.42	-.22	.38	.24	-.06	.12	-.12	-.03	.7298
16	.47	.56	-.01	.28	-.05	-.01	.22	-.05	.04	.6142
17	.48	.75	.11	.01	-.07	-.01	.07	.02	.01	.7776

Table 15. Stages of the JAN procedure for first class school districts.

Stage	Number of Policies	R ²	Successive R ² Drop	Accumulated R ² Drop
1	17	.7008	----	----
2	16	.6983	.0025	.0025
3	15	.6954	.0029	.0054
4	14	.6921	.0032	.0086
5	13	.6884	.0037	.0124
6	12	.6845	.0039	.0163
7	11	.6805	.0040	.0203
8	10	.6762	.0043	.0245
9	9	.6691	.0071	.0316
10	8	.6605	.0086	.0403
11	7	.6505	.0100	.0503
12	6	.6402	.0103	.0606
13	5	.6278	.0124	.0730
14	4	.6110	.0168	.0897
15	3	.5831	.0280	.1177
16	2	.5234	.0596	.1774
17	1	.4067	.1167	.2941

Table 16. Policies (beta weights) for individual school board members in second class school districts.

Judge	Profile Cues									R ²
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
1	.57	.22	.22	.11	.13	-.02	-.05	-.21	-.20	.4564
2	.35	.60	.52	.19	.20	-.21	.08	-.20	.02	.7066
3	.52	.58	.54	.13	.05	-.15	-.03	-.19	.08	.6627
4	.72	.74	.73	-.06	.04	-.05	.04	-.06	.03	.8232
5	.62	.75	.64	.02	.11	.00	-.01	-.12	-.13	.7266
6	.48	.74	.67	.09	.14	.02	.03	-.12	.07	.6694
7	.50	.93	.76	.08	-.05	.04	.04	-.19	.03	.7955
8	.67	.69	.68	.03	.08	-.02	-.03	-.07	.00	.7607
9	.52	.53	.60	-.02	.00	-.15	.00	-.25	-.11	.5609
10	.86	.41	.43	-.07	.14	-.05	.09	-.11	-.04	.7926
11	.68	.72	.58	.03	-.02	-.05	-.01	.01	.06	.7627
12	.48	.41	.37	-.09	.16	-.23	.11	-.42	-.13	.6402
13	.80	.57	.59	-.07	.02	-.07	.05	-.13	-.04	.7989
14	.51	.94	.65	-.10	.02	.03	.08	-.07	.04	.7280
15	.69	.59	.63	.07	.17	-.03	.02	-.08	-.03	.7678
16	.74	.00	-.04	.01	-.01	-.05	.03	-.35	-.12	.6503
17	.47	.72	.52	-.03	.05	-.10	.19	-.19	-.07	.6300
18	.53	.77	.54	.19	.11	-.02	-.05	-.01	-.03	.7165
19	.56	.46	.38	-.07	-.04	-.17	-.11	-.27	-.04	.5400
20	.63	.75	.67	-.26	.00	-.05	.01	-.20	-.06	.7030
21	.33	.65	.65	.04	.06	-.17	.04	-.32	.01	.6162
22	.70	.56	.41	-.23	.10	-.15	-.01	.09	-.20	.7164
23	.89	.56	.51	-.12	.02	-.04	.04	.01	-.01	.8978
24	.20	.45	.38	.07	.05	-.24	.16	-.32	-.23	.5001
25	.65	.53	.57	.04	.19	-.15	.07	-.17	-.04	.7414
26	.70	.72	.65	-.16	-.06	-.08	.08	-.18	-.01	.7733
27	.62	.81	.63	.04	.00	-.04	.07	-.06	.08	.7843
28	.75	.82	.66	.03	.05	-.05	.00	-.02	-.02	.9396
29	.69	.77	.66	.02	-.02	.05	.01	.01	-.02	.7747
30	.63	.58	.55	-.26	-.02	-.01	.14	-.20	.08	.5689
31	.34	.17	.11	.22	.29	-.14	.04	-.20	-.06	.4377
32	.68	.81	.62	.25	.05	-.02	-.04	.00	-.01	.9654
33	.60	.57	.37	-.12	.17	.04	.17	-.04	-.13	.5327
34	.77	.58	.64	-.18	-.08	-.10	-.01	-.17	-.04	.7963
35	.47	.63	.31	.05	.24	.00	-.07	.17	.04	.5002
36	.52	.49	.48	.06	-.06	-.12	.09	-.22	-.09	.5048
37	.36	.49	.42	.04	.23	-.23	.03	-.22	-.49	.6953
38	.69	.75	.65	-.23	-.05	-.02	.09	-.09	-.05	.7334
39	.72	.61	.62	-.25	-.01	-.03	.03	-.16	.04	.6837
40	.28	.28	.24	-.32	-.11	.16	-.45	.27	-.01	.6086
41	.83	.55	.48	-.02	.03	-.07	-.03	.00	-.04	.8358

Table 16--continued.

Judge	Profile Cues									R2
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
42	.36	.38	.24	-.05	.13	.04	-.18	.04	-.04	.2289
43	.62	.57	.61	-.04	-.04	.01	.09	-.14	-.42	.7232
44	.54	.66	.54	-.04	.25	.07	.07	.04	-.07	.5305
45	.44	.48	.52	-.01	.12	-.23	.02	-.21	-.07	.5209
46	.49	.56	.24	.23	.24	.03	.09	.02	-.17	.5740
47	.56	.66	.49	-.09	.04	-.16	.00	-.17	-.19	.6393
48	.40	.44	.21	.16	.13	-.10	.03	-.12	-.05	.4119
49	.65	.68	.47	-.08	.09	-.09	.15	-.13	-.11	.7218
50	.32	.87	.64	-.11	.09	-.09	-.04	-.30	-.12	.6855
51	.58	.72	.59	-.03	.08	-.07	.18	-.13	.03	.6841
52	.69	.46	.65	-.08	-.16	.05	.17	-.12	.12	.6342
53	.58	.91	.66	-.28	.14	.05	.01	.04	-.01	.7473
54	.39	.88	.95	-.05	-.06	-.05	.11	-.12	.12	.7280
55	.89	.45	.45	-.01	-.09	-.08	.05	-.04	-.04	.9002
56	.64	.52	.45	-.17	.07	-.05	.01	-.03	-.12	.5301
57	.67	.82	.75	-.10	-.03	-.09	.00	-.13	-.06	.8352
58	.43	.28	.22	-.01	.05	-.02	-.15	-.30	-.05	.3361
59	.67	.56	.64	-.02	-.16	-.07	-.02	-.12	.07	.6965
60	.42	.57	.60	-.01	-.07	-.32	-.07	-.14	-.21	.6048
61	.60	.66	.50	-.09	.09	-.01	.07	.03	-.02	.5713
62	.76	.61	.63	-.22	-.01	.03	-.06	-.12	-.05	.7364
63	.29	.63	.62	.09	.19	-.14	.16	-.18	-.06	.5996
64	.59	.69	.45	-.20	.11	.00	-.04	-.04	-.04	.5744
65	.65	.62	.45	-.19	.15	-.08	.03	-.10	.02	.6349
66	.13	.58	.52	.14	.00	-.13	-.43	-.14	-.04	.5030
67	.82	.50	.49	.04	.05	-.03	.02	-.04	-.18	.8141
68	.50	.72	.58	-.01	.00	.14	-.04	-.44	-.03	.6936
69	.44	.47	.52	-.05	-.10	-.23	.01	-.17	-.23	.4758
70	.64	.08	.14	.12	.19	-.08	.22	-.35	-.09	.6623
71	.50	.86	.43	-.09	.10	-.06	.04	-.13	.05	.7534
72	.64	.72	.63	-.07	.11	-.11	.09	.02	.04	.7283
73	.24	.36	.22	.01	-.11	-.65	.00	-.11	-.08	.6602
74	.62	.85	.71	-.13	.08	-.09	.13	-.10	-.08	.8118
75	.55	.56	.53	-.07	-.13	-.12	.05	-.11	-.11	.5181
76	.69	.51	.64	.01	.04	.02	.19	.00	.10	.6756
77	.71	.80	.74	-.09	-.02	.06	.00	.01	-.03	.8179
78	.45	.48	.30	.05	.02	.00	.21	-.10	.07	.3936
79	.22	.17	.09	.34	.03	-.13	-.53	-.06	.10	.5844
80	.50	.85	.60	-.22	.11	.01	.03	-.10	.08	.6450
81	.67	.55	.53	-.18	.10	-.13	-.07	-.14	.05	.6627
82	.61	.50	.49	-.15	.04	-.15	.06	-.15	-.18	.5684

Table 16--continued.

Judge	Profile Cues									R ²
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
83	.77	.80	.61	.05	.12	.00	.03	-.01	.02	.9493
84	.37	.18	.47	-.07	-.05	-.14	.02	-.33	-.07	.3274
85	.44	.46	.43	.02	.28	-.15	.00	-.05	-.14	.4687
86	.47	.42	.28	.10	.29	-.09	-.06	-.19	-.04	.5387
87	.56	.57	.47	.12	.00	-.17	.01	-.28	-.13	.6715
88	.53	.65	.55	-.05	.03	-.05	-.05	-.25	-.05	.5706
89	.66	.42	.53	.00	.10	.11	.02	-.12	.08	.5619
90	.68	.61	.57	-.06	.14	.00	.09	-.02	.02	.6432
91	.59	.73	.66	.00	.12	-.13	.06	-.08	-.18	.7473
92	.69	.73	.61	.06	.00	-.06	-.03	-.10	.04	.8165
93	.67	.43	.27	-.20	.28	.10	-.02	-.10	-.11	.5249
94	.70	.63	.48	-.02	.18	-.01	.08	-.08	-.03	.7002
95	.80	.48	.50	-.02	-.01	.10	.01	.08	-.03	.7280
96	.55	.76	.78	.01	.00	.06	-.04	-.05	.03	.6624
97	.59	.74	.75	.01	.00	.03	.06	-.21	-.02	.7250
98	.31	.26	.27	-.26	.16	.15	-.21	.19	.05	.2573
99	.69	.74	.65	-.09	.09	.01	.04	-.03	.03	.7466
100	.63	.84	.66	-.01	.05	.05	.03	.04	.05	.7580
101	.50	.64	.67	-.08	.10	.04	-.10	.02	-.10	.5014
102	.64	.59	.49	-.09	-.02	-.09	-.04	-.15	-.15	.6196
103	.63	.67	.58	-.12	.07	-.08	.12	.01	.02	.6410
104	.41	.76	.56	.12	.27	-.09	.11	-.04	.04	.7285
105	.59	.44	.40	.14	.14	-.14	.08	-.14	.11	.6491
106	.78	.53	.51	.01	-.03	-.05	.12	-.18	.02	.7848
107	.16	.15	.01	-.04	.03	-.04	.01	.06	.05	.8873
108	.64	.35	.22	.08	.10	-.10	-.16	-.14	-.35	.6291
109	.67	.91	.77	.07	.03	-.03	-.03	-.03	.01	.9527
110	.67	.74	.53	-.18	.11	-.13	.07	-.08	-.01	.7682
111	.51	.56	.54	.27	.18	-.05	.14	-.13	.03	.7459
112	.87	.00	.09	-.02	.05	-.06	.09	-.12	.02	.7353
113	.53	.50	.45	-.06	-.05	-.36	.15	-.17	.01	.6569
114	.42	.77	.59	.10	.05	-.08	.06	-.42	-.14	.8175
115	.73	.71	.52	-.03	.08	.06	.13	-.12	.04	.7861
116	.82	.61	.56	-.10	.06	.12	.00	.04	-.03	.7791
117	.55	.75	.75	-.06	.07	-.03	.12	-.23	-.09	.7055
118	.61	.51	.47	-.28	-.07	-.14	.05	-.18	.00	.5591
119	.45	.74	.61	.12	.26	-.03	.13	-.05	.07	.7172
120	.67	.38	.34	.15	.18	-.16	.03	-.17	-.06	.7143
121	.62	.54	.42	.00	.05	.08	-.10	.13	-.09	.5398
122	.43	.33	.41	-.03	-.08	-.07	-.06	-.44	.08	.4399
123	.21	.13	.06	.20	.34	-.27	.05	-.22	-.21	.4997

Table 16--continued.

Judge	Profile Cues									R ²
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
124	.62	.55	.52	.02	-.04	-.12	.02	-.28	-.01	.6635
125	.58	.57	.50	.11	.09	.06	.16	-.36	.02	.7322
126	.68	.55	.48	.12	.15	.02	-.02	-.02	.01	.6824
127	.63	.64	.52	-.06	.09	-.10	-.13	-.20	-.18	.7002
128	.26	.69	.63	-.03	-.05	.08	-.18	-.20	-.02	.3983
129	.71	.80	.69	-.04	-.02	.06	.00	-.03	.02	.8084

Table 17. Stages of the JAN procedure for second class school districts.

Stage	Number of Policies	R ²	Successive R ² Drop	Accumulated R ² Drop
1	129	.7373	----	----
2	128	.7373	.0001	.0001
3	127	.7372	.0001	.0001
4	126	.7372	.0001	.0002
5	125	.7371	.0001	.0002
6	124	.7370	.0001	.0003
7	123	.7369	.0001	.0004
8	122	.7368	.0001	.0005
9	121	.7367	.0001	.0006
10	120	.7366	.0001	.0007
11	119	.7365	.0001	.0008
12	118	.7364	.0001	.0009
13	117	.7363	.0001	.0010
14	116	.7362	.0001	.0011
15	115	.7360	.0001	.0013
16	114	.7359	.0001	.0014
17	113	.7357	.0001	.0016
18	112	.7356	.0002	.0017
19	111	.7354	.0002	.0019
20	110	.7353	.0002	.0020
21	109	.7351	.0002	.0022
22	108	.7349	.0002	.0024
23	107	.7348	.0002	.0026
24	106	.7346	.0002	.0027
25	105	.7344	.0002	.0029
26	104	.7342	.0002	.0031
27	103	.7340	.0002	.0033
28	102	.7338	.0002	.0035
29	101	.7336	.0002	.0037
30	100	.7334	.0002	.0039
31	99	.7332	.0002	.0041
32	98	.7330	.0002	.0044
33	97	.7327	.0002	.0046
34	96	.7325	.0002	.0048
35	95	.7322	.0002	.0051
36	94	.7320	.0002	.0053
37	93	.7318	.0002	.0056
38	92	.7315	.0002	.0058
39	91	.7313	.0003	.0061
40	90	.7310	.0003	.0063
41	89	.7307	.0003	.0066
42	88	.7304	.0003	.0069
43	87	.7301	.0003	.0072

Table 17--continued.

Stage	Number of Policies	R ²	Successive R ² Drop	Accumulated R ² Drop
44	86	.7299	.0003	.0075
45	85	.7296	.0003	.0078
46	84	.7293	.0003	.0081
47	83	.7290	.0003	.0084
48	82	.7287	.0003	.0087
49	81	.7284	.0003	.0090
50	80	.7280	.0003	.0093
51	79	.7277	.0003	.0096
52	78	.7274	.0003	.0100
53	77	.7270	.0003	.0103
54	76	.7267	.0004	.0107
55	75	.7263	.0004	.0110
56	74	.7259	.0004	.0114
57	73	.7255	.0004	.0118
58	72	.7252	.0004	.0122
59	71	.7247	.0004	.0126
60	70	.7243	.0004	.0130
61	69	.7238	.0004	.0135
62	68	.7234	.0004	.0139
63	67	.7229	.0005	.0144
64	66	.7225	.0005	.0148
65	65	.7220	.0005	.0153
66	64	.7215	.0005	.0159
67	63	.7209	.0005	.0164
68	62	.7204	.0005	.0169
69	61	.7199	.0005	.0174
70	60	.7193	.0006	.0180
71	59	.7187	.0006	.0186
72	58	.7181	.0006	.0192
73	57	.7175	.0006	.0198
74	56	.7169	.0006	.0204
75	55	.7163	.0006	.0210
76	54	.7157	.0006	.0216
77	53	.7150	.0007	.0223
78	52	.7144	.0007	.0230
79	51	.7137	.0007	.0236
80	50	.7130	.0007	.0244
81	49	.7122	.0007	.0251
82	48	.7115	.0008	.0259
83	47	.7107	.0008	.0266
84	46	.7099	.0008	.0274
85	45	.7091	.0008	.0282
86	44	.7083	.0008	.0290

Table 17--continued.

Stage	Number of Policies	R ²	Successive R ² Drop	Accumulated R ² Drop
87	43	.7075	.0008	.0298
88	42	.7067	.0008	.0306
89	41	.7059	.0008	.0314
90	40	.7050	.0009	.0323
91	39	.7041	.0009	.0333
92	38	.7031	.0010	.0342
93	37	.7021	.0010	.0352
94	36	.7011	.0010	.0362
95	35	.7000	.0011	.0373
96	34	.6989	.0011	.0384
97	33	.6975	.0014	.0398
98	32	.6962	.0014	.0412
99	31	.6948	.0014	.0426
100	30	.6933	.0015	.0440
101	29	.6917	.0016	.0456
102	28	.6901	.0016	.0472
103	27	.6885	.0016	.0488
104	26	.6868	.0018	.0506
105	25	.6850	.0018	.0524
106	24	.6832	.0018	.0542
107	23	.6812	.0019	.0561
108	22	.6791	.0021	.0582
109	21	.6769	.0022	.0605
110	20	.6745	.0024	.0629
111	19	.6720	.0024	.0653
112	18	.6692	.0029	.0682
113	17	.6662	.0029	.0711
114	16	.6632	.0030	.0741
115	15	.6599	.0033	.0774
116	14	.6564	.0035	.0809
117	13	.6526	.0039	.0848
118	12	.6484	.0041	.0889
119	11	.6438	.0046	.0935
120	10	.6384	.0055	.0989
121	9	.6316	.0068	.1057
122	8	.6248	.0068	.1125
123	7	.6180	.0068	.1193
124	6	.6109	.0071	.1265
125	5	.5998	.0111	.1375
126	4	.5865	.0133	.1509
127	3	.5617	.0248	.1756
128	2	.5337	.0280	.2037
129	1	.4203	.1134	.3171

Table 18. Policies (beta weights) for individual school board members in third class school districts.

Judge	Profile Cues									R2
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
1	.60	.40	-.04	.24	.16	-.19	.02	-.24	-.07	.7734
2	.64	.53	.00	.18	-.09	-.05	-.02	-.10	-.09	.6657
3	.64	.67	.00	.03	-.01	.00	-.07	.08	-.07	.7891
4	.59	.63	-.08	.05	-.03	-.06	-.05	-.10	-.04	.6959
5	.76	.50	.00	.12	-.03	-.05	.03	.08	.03	.7760
6	.61	.63	-.09	.05	.16	-.01	-.13	-.14	-.10	.7884
7	.40	.68	.07	.04	-.11	-.05	.04	-.01	.05	.6159
8	.51	.72	-.20	-.03	.04	-.16	.03	-.08	-.09	.7982
9	.53	.29	-.17	.39	-.11	.03	-.09	.00	.17	.4111
10	.76	.43	.06	.05	.05	-.04	.05	.00	.00	.7611
11	.50	.81	-.21	.07	.12	.01	-.02	-.05	-.12	.8322
12	.61	.43	-.23	.13	-.07	.01	.06	.01	.15	.4894
13	.58	.43	-.19	.37	.30	-.04	.04	-.23	-.03	.7769
14	.33	.38	-.11	-.14	.16	-.07	.06	-.10	-.01	.3007
15	.54	.14	-.12	.00	.26	-.11	-.03	.04	-.13	.4098
16	.73	.25	.14	-.07	-.13	-.13	-.09	-.20	-.18	.6789
17	.73	.54	-.23	.15	.04	-.01	-.07	.06	-.16	.7269
18	.60	.57	-.01	.01	-.03	-.08	.05	-.10	-.14	.6703
19	.64	.44	-.01	.01	-.05	-.07	.02	-.02	-.06	.5621
20	.71	.39	.04	.20	-.02	-.04	-.03	.03	.01	.6569
21	.73	.66	-.19	.24	.01	.19	.11	.03	-.05	.7962
22	.47	.39	-.14	.01	.19	-.09	-.03	-.14	-.31	.4807
23	.41	.13	-.32	.24	.17	-.29	.02	-.18	-.06	.3596
24	.55	.55	-.01	.21	.14	-.04	-.10	-.10	-.09	.7117
25	.34	.49	-.06	.05	.09	-.27	-.05	-.23	-.20	.5810
26	.70	.58	-.02	.05	-.04	.05	.03	.02	.00	.7148
27	.35	.38	-.29	.33	-.10	-.06	-.22	.09	.03	.3380
28	.57	.63	-.10	-.06	-.06	-.01	.05	-.07	.10	.6481
29	.37	.25	-.13	.00	-.14	-.37	.01	-.13	-.36	.5019
30	.63	.67	-.10	-.08	-.07	.00	-.08	-.07	-.14	.7723
31	.45	.35	-.28	.22	-.06	-.13	.05	-.23	-.14	.4003
32	.17	.84	-.12	.26	.08	.08	.00	.04	.01	.7696
33	.77	.55	-.05	.10	.02	-.10	.06	.00	.10	.8751
34	.59	.47	-.04	.00	-.17	-.11	-.03	-.04	-.12	.5538
35	.41	.61	-.09	.06	.21	-.06	.03	-.24	-.11	.6816
36	.73	.63	-.01	.08	-.02	-.04	-.07	.05	.08	.8821
37	.35	.53	-.39	.11	.02	.00	.16	-.01	-.17	.4510
38	.65	.36	-.25	.21	-.13	-.15	-.10	-.11	-.07	.5541
39	.79	.64	.00	.13	-.08	-.01	.01	.05	-.08	.9294
40	.55	.42	-.03	.14	.01	-.07	-.12	-.32	-.24	.6306
41	.76	.62	-.20	.23	.00	.06	.06	-.02	.06	.8056

Table 18--continued.

Judge	Profile Cues									R ²
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
42	.70	.56	-.32	.35	.08	.02	-.10	.00	-.08	.7006
43	.62	.61	-.15	.01	.16	-.07	-.05	-.21	-.10	.7800
44	.31	.38	.06	-.38	.04	-.10	-.03	-.20	-.17	.3767
45	.53	.56	-.45	.59	-.01	-.01	.02	.07	.05	.6300
46	.67	.74	-.04	.06	-.03	.06	-.09	.12	-.03	.8875
47	.72	.24	-.08	.00	.07	-.22	.07	-.28	.02	.7045
48	.66	.68	-.02	.10	.00	-.02	.00	-.14	-.08	.8554
49	.71	.51	-.25	.00	-.01	-.08	-.02	.00	-.04	.7099
50	.74	.40	-.20	.35	-.08	-.04	.04	-.05	.05	.6332
51	.75	.41	-.23	.16	-.08	.05	.09	-.10	-.11	.6038
52	.53	.38	-.29	.18	.09	.09	.06	-.47	-.18	.5889
53	.93	.22	-.04	.18	.02	-.05	.11	-.02	-.07	.8467
54	.50	.39	-.30	.36	.17	.02	-.04	-.08	.01	.4205
55	.86	.38	-.16	.06	.01	.03	.05	.12	-.09	.7835
56	.88	.37	-.34	.26	.02	.04	-.07	.01	-.02	.7586
57	.72	.73	.03	-.01	-.01	-.01	-.01	-.02	-.03	.9809
58	.63	.50	-.35	.40	.07	-.02	.15	-.07	.11	.6327
59	.54	.74	-.28	.29	.05	.06	-.06	-.06	-.14	.7621
60	.54	.29	-.10	.38	.14	-.24	-.09	-.09	-.07	.6206
61	.72	.73	.01	.15	.04	.01	-.02	.00	.00	.9967
62	.50	.70	.00	-.09	.01	-.10	.12	-.13	.00	.7591
63	.90	.17	-.28	.03	-.02	-.14	-.01	-.14	-.11	.8254
64	.21	.59	.13	-.21	-.14	-.06	-.01	-.12	.11	.4133
65	.55	.41	-.19	-.10	.16	.00	.11	-.18	.04	.4922
66	.66	.33	-.48	.45	-.13	.07	.14	-.14	-.15	.5371
67	.28	.73	.14	-.15	-.10	-.15	-.22	.10	.02	.7059
68	.70	.43	.02	.26	.12	-.13	-.08	-.05	-.14	.8209
69	.56	.42	-.17	.11	.04	-.09	.05	-.33	.02	.5644
70	.60	.68	-.38	.12	.01	.10	-.09	-.03	-.07	.7040
71	.63	.20	-.03	.42	.06	-.17	.15	.12	.12	.5944
72	.71	.59	.01	.14	-.09	-.03	.04	.01	.04	.7904
73	.39	.17	-.17	.07	.06	-.40	.16	-.23	-.25	.5018
74	.76	.54	-.08	.11	.11	.03	-.13	-.01	-.11	.8316
75	.66	.67	-.01	.09	-.03	.04	.02	.11	.03	.8010

Table 19. Stages of the JAN procedure for third class school districts.

Stage	Number of Policies	R ²	Successive R ² Drop	Accumulated R ² Drop
1	75	.7600	----	----
2	74	.7599	.0001	.0001
3	73	.7598	.0001	.0002
4	72	.7596	.0002	.0004
5	71	.7594	.0002	.0006
6	70	.7592	.0002	.0008
7	69	.7590	.0003	.0010
8	68	.7587	.0003	.0013
9	67	.7584	.0003	.0016
10	66	.7580	.0003	.0020
11	65	.7577	.0003	.0023
12	64	.7573	.0004	.0027
13	63	.7570	.0004	.0030
14	62	.7566	.0004	.0034
15	61	.7562	.0004	.0038
16	60	.7558	.0004	.0042
17	59	.7554	.0004	.0046
18	58	.7550	.0004	.0050
19	57	.7545	.0004	.0055
20	56	.7541	.0005	.0059
21	55	.7536	.0005	.0064
22	54	.7531	.0005	.0069
23	53	.7526	.0005	.0074
24	52	.7521	.0005	.0079
25	51	.7515	.0006	.0085
26	50	.7509	.0007	.0091
27	49	.7502	.0007	.0098
28	48	.7494	.0007	.0106
29	47	.7487	.0007	.0113
30	46	.7479	.0008	.0121
31	45	.7471	.0008	.0129
32	44	.7463	.0009	.0137
33	43	.7454	.0009	.0146
34	42	.7444	.0009	.0156
35	41	.7435	.0009	.0165
36	40	.7426	.0009	.0174
37	39	.7416	.0009	.0184
38	38	.7406	.0010	.0194
39	37	.7396	.0010	.0204
40	36	.7385	.0011	.0215
41	35	.7374	.0011	.0226
42	34	.7363	.0011	.0237
43	33	.7351	.0012	.0249

Table 19--continued.

Stage	Number of Policies	R ²	Successive R ² Drop	Accumulated R ² Drop
44	32	.7338	.0013	.0262
45	31	.7325	.0014	.0275
46	30	.7311	.0014	.0289
47	29	.7297	.0014	.0303
48	28	.7281	.0015	.0319
49	27	.7263	.0018	.0337
50	26	.7244	.0019	.0356
51	25	.7225	.0019	.0375
52	24	.7206	.0019	.0394
53	23	.7187	.0019	.0413
54	22	.7167	.0020	.0433
55	21	.7144	.0023	.0456
56	20	.7121	.0023	.0479
57	19	.7096	.0024	.0504
58	18	.7072	.0025	.0528
59	17	.7044	.0028	.0556
60	16	.7013	.0030	.0587
61	15	.6978	.0035	.0622
62	14	.6939	.0039	.0661
63	13	.6899	.0040	.0701
64	12	.6849	.0050	.0751
65	11	.6795	.0054	.0805
66	10	.6739	.0056	.0861
67	9	.6674	.0065	.0926
68	8	.6605	.0068	.0995
69	7	.6531	.0074	.1069
70	6	.6422	.0109	.1178
71	5	.6288	.0134	.1312
72	4	.6135	.0153	.1465
73	3	.5940	.0195	.1660
74	2	.5463	.0476	.2137
75	1	.4084	.1379	.3516

Table 20. Policies (beta weights) for individual male school board members.

Judge	Profile Cues									R2
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
1	.63	.17	-.04	.31	.01	-.02	-.04	-.15	-.19	.4851
2	.60	.40	-.04	.24	.16	-.19	.02	-.24	-.07	.7734
3	.64	.53	.00	.18	-.09	-.05	-.02	-.10	-.09	.6657
4	.38	.48	-.07	.30	.21	-.21	.09	-.18	.04	.7313
5	.60	.60	-.14	.08	.24	.00	-.02	-.13	-.13	.7511
6	.64	.67	.00	.03	-.01	.00	-.07	.08	-.07	.7891
7	.70	.56	-.11	.24	.11	-.02	-.05	.00	.00	.7704
8	.52	.33	-.15	.24	-.05	-.23	.12	-.40	-.11	.6489
9	.57	.72	-.16	.11	-.06	.04	.11	-.06	.05	.7278
10	.75	.48	-.17	.42	.14	-.01	.00	.02	-.03	.7995
11	.71	.00	-.07	-.08	.19	-.05	.02	-.38	-.12	.6764
12	.63	.61	-.19	-.02	-.08	-.05	.01	-.20	-.05	.7040
13	.51	.39	-.15	.54	.12	-.03	.03	-.15	.00	.6836
14	.91	.45	-.09	.09	-.08	-.04	.03	.05	-.02	.9038
15	.53	.29	-.17	.39	-.11	.03	-.09	.00	.17	.4111
16	.69	.44	-.15	.35	.11	-.14	.06	-.11	-.03	.7505
17	.73	.57	-.17	.07	-.02	-.07	.06	-.12	-.03	.7714
18	.63	.64	.03	.02	.00	-.03	.08	-.06	.08	.7836
19	.71	.61	-.03	.08	.02	.06	.00	.05	-.03	.7776
20	.50	.81	-.21	.07	.12	.01	-.02	-.05	-.12	.8322
21	.63	.48	-.19	.01	-.09	-.01	.13	-.17	.08	.5693
22	.38	.12	-.20	.43	.36	-.13	.05	-.18	-.03	.5078
23	.69	.63	.17	.10	.05	-.01	-.03	.00	.00	.9680
24	.61	.43	-.23	.13	-.07	.01	.06	.01	.15	.4894
25	.58	.43	-.19	.37	.30	-.04	.04	-.23	-.03	.7769
26	.33	.38	-.11	-.14	.16	-.07	.06	-.10	-.01	.3007
27	.50	.40	-.11	.07	.27	-.10	.04	-.16	-.12	.5407
28	.42	.39	-.15	.37	.03	-.23	.05	-.19	-.47	.7185
29	.54	.14	-.12	.00	.26	-.11	-.03	.04	-.13	.4098
30	.73	.25	.14	-.07	-.13	-.13	-.09	-.20	-.18	.6789
31	.77	.58	-.22	.22	-.19	.00	.09	.00	-.06	.7813
32	.73	.54	-.23	.15	.04	-.01	-.07	.06	-.16	.7269
33	.74	.50	-.24	.11	-.05	-.02	.01	-.09	.03	.6792
34	.60	.57	-.01	.01	-.03	-.08	.05	-.10	-.14	.6703
35	.64	.44	-.01	.01	-.05	-.07	.02	-.02	-.06	.5621
36	.71	.39	.04	.20	-.02	-.04	-.03	.03	.01	.6569
37	.61	.48	-.10	.06	.10	.02	.05	-.08	-.44	.7118
38	.73	.66	-.19	.24	.01	.19	.11	.03	-.05	.7962
39	.47	.39	-.14	.01	.19	-.09	-.03	-.14	-.31	.4807
40	.61	.39	-.14	.49	.12	.04	.16	.04	-.14	.6141
41	.41	.13	-.32	.24	.17	-.29	.02	-.18	-.06	.3596

Table 20--continued.

Judge	Profile Cues									R ²
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
42	.34	.49	-.06	.05	.09	-.27	-.05	-.23	-.20	.5810
43	.70	.58	-.02	.05	-.04	.05	.03	.02	.00	.7148
44	.65	.53	-.09	.00	-.01	-.10	.18	-.18	-.09	.7119
45	.33	.68	-.13	.05	-.01	-.09	-.01	-.34	-.10	.6778
46	.35	.38	-.29	.33	-.10	-.06	-.22	.09	.03	.3380
47	.60	.56	-.15	.15	.08	-.07	.18	-.11	.04	.6917
48	.68	.41	-.08	.04	.06	.07	.10	.02	.07	.5670
49	.57	.63	-.10	-.06	-.06	-.01	.05	-.07	.10	.6481
50	.62	.51	.06	-.03	-.02	-.05	.02	-.04	.04	.6316
51	.57	.71	-.41	.05	.16	.04	.03	-.02	.01	.7471
52	.36	.74	-.03	.01	.07	-.05	.05	-.04	.09	.6868
53	.88	.37	.01	-.02	.00	-.07	.02	.00	-.06	.8901
54	.67	.67	-.06	.03	-.05	-.08	-.01	-.09	-.07	.8320
55	.45	.22	-.17	.14	.14	-.01	-.15	-.27	-.05	.3512
56	.68	.47	.00	.04	-.01	-.05	-.07	-.01	.02	.6577
57	.42	.57	.60	-.01	-.07	-.32	-.07	-.14	-.21	.6048
58	.63	.67	-.10	-.08	-.07	.00	-.08	-.07	-.14	.7723
59	.60	.53	-.07	.00	-.02	-.02	.09	-.01	.00	.5653
60	.75	.51	-.13	-.01	-.08	.03	-.08	-.10	-.05	.7275
61	.33	.51	.00	.31	-.03	-.15	.16	-.13	-.04	.6072
62	.60	.53	-.18	.00	-.07	-.02	.00	-.11	-.01	.5616
63	.17	.84	-.12	.26	.08	.08	.00	.04	.01	.7696
64	.67	.48	-.19	.11	-.08	-.10	.06	-.13	.05	.6319
65	.17	.46	.06	.18	.00	-.11	-.44	-.08	-.05	.5140
66	.81	.41	-.13	.11	.23	-.02	-.01	-.01	-.19	.8396
67	.52	.56	-.15	.11	.15	.16	-.04	-.40	-.04	.7100
68	.52	.64	-.11	-.03	-.06	-.07	.12	-.24	.09	.6937
69	.77	.55	-.05	.10	.02	-.10	.06	.00	.10	.8751
70	.59	.47	-.04	.00	-.17	-.11	-.03	-.04	-.12	.5538
71	.50	.79	-.11	.09	.18	.06	.05	.10	.00	.8317
72	.41	.61	-.09	.06	.21	-.06	.03	-.24	-.11	.6816
73	.30	.19	.15	.18	-.05	.05	.24	.02	.19	.2729
74	.27	.27	-.02	-.02	-.01	-.64	.00	-.09	-.09	.6458
75	.49	.47	.17	-.28	-.14	-.13	.02	-.13	-.12	.8243
76	.49	.47	.17	-.28	-.14	-.13	.02	-.13	-.12	.5423
77	.66	.45	.07	.03	.00	.01	.14	.04	.09	.6346
78	.65	.36	-.25	.21	-.13	-.15	-.10	-.11	-.07	.5541
79	.74	.65	-.06	.09	-.07	.06	-.02	.07	-.04	.8188
80	.55	.42	-.03	.14	.01	-.07	-.12	-.32	-.24	.6306
81	.45	.37	-.03	-.01	.10	.01	.22	-.13	.08	.3927
82	.22	.13	.37	-.03	-.05	-.14	-.51	-.09	.12	.5831

Table 20--continued.

Judge	Profile Cues									R ²
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
83	.76	.62	-.20	.23	.00	.06	.06	-.02	.06	.8056
84	.50	.66	-.27	.03	.04	.00	.06	-.15	.10	.6349
85	.70	.56	-.32	.35	.08	.02	-.10	.00	-.08	.7006
86	.71	.44	-.30	.26	.02	-.13	-.08	-.07	.05	.6797
87	.62	.61	-.15	.01	.16	-.07	-.05	-.21	-.10	.7800
88	.59	.42	-.22	.02	.15	-.15	.03	-.14	-.19	.9593
89	.80	.62	-.11	.18	.11	.01	.04	-.01	.04	.9593
90	.39	.19	-.15	.23	.06	-.12	-.06	-.17	-.10	.2631
91	.43	.38	-.06	.16	.07	-.17	.01	-.10	-.10	.4227
92	.31	.38	.06	-.38	.04	-.10	-.03	-.20	-.17	.3767
93	.53	.56	-.45	.59	-.01	-.01	.02	.07	.05	.6300
94	.67	.74	-.04	.06	-.03	.06	-.09	.12	-.03	.8875
95	.56	.43	.00	.09	.13	-.16	-.01	-.24	-.14	.6829
96	.57	.51	-.11	.16	-.04	-.04	.05	-.20	-.06	.5837
97	.69	.36	-.12	.29	.06	.11	-.01	-.03	.07	.5592
98	.72	.24	-.08	.00	.07	-.22	.07	-.28	.02	.7045
99	.66	.68	-.02	.10	.00	-.02	.00	-.14	-.08	.8554
100	.71	.51	-.25	.00	-.01	-.08	-.02	.00	-.04	.7099
101	.74	.40	-.20	.35	-.08	-.04	.04	-.05	.05	.6332
102	.52	.51	-.04	.43	-.01	-.08	.06	-.08	.12	.7395
103	.69	.50	-.12	.19	.00	.00	.09	.00	.03	.6390
104	.56	.59	-.14	.09	.20	-.14	.05	-.08	-.18	.7587
105	.76	.57	-.01	.24	-.09	-.05	-.02	-.02	.03	.8522
106	.75	.32	-.36	.40	-.06	.09	.03	-.11	-.07	.5492
107	.70	.50	-.02	.07	-.05	-.03	.11	-.14	.00	.6832
108	.53	.38	-.29	.18	.09	.09	.06	-.47	-.18	.5889
109	.82	.40	.03	.09	-.12	.10	.00	.13	-.04	.7325
110	.60	.61	-.03	.12	.05	.03	.03	-.14	-.03	.7141
111	.93	.22	-.04	.18	.02	-.05	.11	-.02	-.07	.8467
112	.31	.24	.02	-.02	-.38	.12	-.18	.13	.09	.3240
113	.70	.60	-.09	.10	-.05	.00	.05	-.02	.04	.7452
114	.51	.53	-.12	.18	.01	.04	-.12	.08	-.10	.4891
115	.50	.39	-.30	.36	.17	.02	-.04	-.08	.01	.4205
116	.47	.59	.03	.29	-.08	-.11	.16	-.07	.08	.7234
117	.64	.34	-.08	.31	.14	-.13	.08	-.08	.12	.6790
118	.88	.37	-.34	.26	.02	.04	-.07	.01	-.02	.7586
119	.63	.50	-.35	.40	.07	-.02	.15	-.07	.11	.6327
120	.20	.92	-.10	.18	-.01	-.03	.00	.12	.04	.8958
121	.63	.29	.14	-.04	-.07	-.11	-.13	-.20	-.32	.6243
122	.71	.71	-.09	.21	.09	-.02	-.04	.03	.00	.9731
123	.72	.73	.01	.15	.04	.01	-.02	.00	.00	.9967

Table 20--continued.

Judge	Profile Cues									R ²
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
124	.66	.58	-.08	-.04	-.13	-.15	.11	-.14	.03	.7677
125	.54	.46	-.03	.34	.27	-.03	.12	-.08	.04	.7896
126	.85	.02	-.01	.01	.03	-.07	.07	-.11	.02	.7263
127	.59	.40	-.11	.17	-.05	-.35	.15	-.08	-.01	.6718
128	.90	.17	-.28	.03	-.02	-.14	-.01	-.14	-.11	.8254
129	.57	.65	-.04	.15	.08	-.12	.09	-.21	-.06	.8696
130	.82	.49	-.18	.10	.08	.12	-.01	.06	-.03	.7804
131	.56	.61	-.16	.19	.10	-.03	.10	-.16	-.09	.7038
132	.59	.42	-.18	-.13	-.04	-.14	.03	-.18	-.01	.5622
133	.71	.30	-.03	.28	.09	-.16	.04	-.15	-.04	.7247
134	.60	.43	-.05	-.02	.12	.07	-.10	.10	-.08	.5471
135	.65	.42	-.22	.38	.24	-.06	.12	-.12	-.03	.7298
136	.46	.27	-.26	.22	.23	-.04	-.12	-.30	.04	.4680
137	.26	.09	-.03	.37	.09	-.29	.09	-.25	-.16	.4824
138	.64	.44	-.02	.10	.01	-.11	.00	-.22	-.03	.6639
139	.63	.45	-.16	.29	.22	.07	.14	-.30	.02	.7784
140	.66	.33	-.48	.45	-.13	.07	.14	-.14	-.15	.5371
141	.28	.73	.14	-.15	-.10	-.15	-.22	.10	.02	.7059
142	.70	.43	.02	.26	.12	-.13	-.08	-.05	-.14	.8209
143	.56	.42	-.17	.11	.04	-.09	.05	-.33	.02	.5644
144	.60	.68	-.38	.12	.01	.10	-.09	-.03	-.07	.7040
145	.64	.51	-.10	.10	.01	-.10	-.13	-.20	-.17	.6993
146	.29	.54	-.28	.21	.25	.11	-.22	-.10	-.05	.4395
147	.63	.20	-.03	.42	.06	-.17	.15	.12	.12	.5944
148	.71	.65	-.02	.01	-.04	.06	-.01	-.01	.02	.8078
149	.71	.59	.01	.14	-.09	-.03	.04	.01	.04	.7904
150	.39	.17	-.17	.07	.06	-.40	.16	-.23	-.25	.5018
151	.76	.54	-.08	.11	.11	.03	-.13	-.01	-.11	.8316

Table 21. Stages of the JAN procedure for male school board members.

Stage	Number of Policies	R ²	Successive R ² Drop	Accumulated R ² Drop
1	151	.7383	----	----
2	150	.7383	.0000	.0000
3	149	.7382	.0000	.0000
4	148	.7382	.0000	.0001
5	147	.7382	.0000	.0001
6	146	.7381	.0001	.0002
7	145	.7380	.0001	.0003
8	144	.7379	.0001	.0003
9	143	.7379	.0001	.0004
10	142	.7378	.0001	.0005
11	141	.7377	.0001	.0006
12	140	.7376	.0001	.0007
13	139	.7375	.0001	.0008
14	138	.7373	.0001	.0009
15	137	.7372	.0001	.0011
16	136	.7371	.0001	.0012
17	135	.7370	.0001	.0013
18	134	.7369	.0001	.0014
19	133	.7367	.0001	.0016
20	132	.7366	.0001	.0017
21	131	.7365	.0001	.0018
22	130	.7363	.0001	.0020
23	129	.7362	.0001	.0021
24	128	.7360	.0001	.0023
25	127	.7359	.0002	.0024
26	126	.7357	.0002	.0026
27	125	.7356	.0002	.0027
28	124	.7354	.0002	.0029
29	123	.7353	.0002	.0030
30	122	.7351	.0002	.0032
31	121	.7349	.0002	.0034
32	120	.7348	.0002	.0035
33	119	.7346	.0002	.0037
34	118	.7344	.0002	.0039
35	117	.7342	.0002	.0040
36	116	.7341	.0002	.0042
37	115	.7339	.0002	.0044
38	114	.7337	.0002	.0046
39	113	.7335	.0002	.0048
40	112	.7333	.0002	.0050
41	111	.7331	.0002	.0052
42	110	.7329	.0002	.0054
43	109	.7327	.0002	.0056

Table 21--continued.

Stage	Number of Policies	R ²	Successive R ² Drop	Accumulated R ² Drop
44	108	.7325	.0002	.0058
45	107	.7323	.0002	.0060
46	106	.7320	.0002	.0062
47	105	.7318	.0002	.0065
48	104	.7316	.0002	.0067
49	103	.7314	.0002	.0069
50	102	.7311	.0002	.0072
51	101	.7309	.0002	.0074
52	100	.7306	.0003	.0077
53	99	.7304	.0003	.0079
54	98	.7301	.0003	.0082
55	97	.7298	.0003	.0085
56	96	.7295	.0003	.0087
57	95	.7293	.0003	.0090
58	94	.7289	.0003	.0093
59	93	.7286	.0003	.0096
60	92	.7283	.0003	.0100
61	91	.7280	.0003	.0103
62	90	.7277	.0003	.0106
63	89	.7274	.0003	.0109
64	88	.7271	.0003	.0112
65	87	.7267	.0003	.0115
66	86	.7264	.0003	.0119
67	85	.7261	.0003	.0122
68	84	.7257	.0004	.0126
69	83	.7253	.0004	.0130
70	82	.7250	.0004	.0133
71	81	.7246	.0004	.0137
72	80	.7242	.0004	.0141
73	79	.7238	.0004	.0144
74	78	.7235	.0004	.0148
75	77	.7231	.0004	.0152
76	76	.7227	.0004	.0156
77	75	.7223	.0004	.0160
78	74	.7219	.0004	.0164
79	73	.7215	.0004	.0168
80	72	.7210	.0004	.0173
81	71	.7206	.0004	.0177
82	70	.7202	.0004	.0181
83	69	.7197	.0004	.0186
84	68	.7193	.0004	.0190
85	67	.7188	.0005	.0195
86	66	.7183	.0005	.0020

Table 21--continued.

Stage	Number of Policies	R ²	Successive R ² Drop	Accumulated R ² Drop
87	65	.7178	.0005	.0205
88	64	.7173	.0005	.0210
89	63	.7168	.0005	.0215
90	62	.7162	.0005	.0221
91	61	.7157	.0006	.0226
92	60	.7151	.0006	.0232
93	59	.7145	.0006	.0238
94	58	.7139	.0007	.0244
95	57	.7132	.0007	.0251
96	56	.7125	.0007	.0257
97	55	.7119	.0007	.0264
98	54	.7112	.0007	.0271
99	53	.7105	.0007	.0278
100	52	.7098	.0007	.0285
101	51	.7091	.0007	.0292
102	50	.7083	.0007	.0300
103	49	.7076	.0007	.0307
104	48	.7069	.0007	.0314
105	47	.7061	.0008	.0322
106	46	.7053	.0008	.0330
107	45	.7044	.0008	.0338
108	44	.7036	.0009	.0347
109	43	.7027	.0009	.0356
110	42	.7018	.0009	.0365
111	41	.7009	.0009	.0374
112	40	.6999	.0009	.0383
113	39	.6989	.0010	.0393
114	38	.6979	.0010	.0404
115	37	.6968	.0011	.0415
116	36	.6956	.0012	.0427
117	35	.6944	.0012	.0438
118	34	.6932	.0012	.0451
119	33	.6920	.0013	.0463
120	32	.6906	.0013	.0477
121	31	.6893	.0013	.0490
122	30	.6879	.0014	.0504
123	29	.6864	.0015	.0519
124	28	.6849	.0015	.0534
125	27	.6833	.0016	.0550
126	26	.6816	.0017	.0567
127	25	.6799	.0017	.0584
128	24	.6782	.0017	.0601
129	23	.6761	.0021	.0622

Table 21--continued.

Stage	Number of Policies	R ²	Successive R ² Drop	Accumulated R ² Drop
130	22	.6739	.0022	.0644
131	21	.6716	.0023	.0667
132	20	.6692	.0024	.0691
133	19	.6668	.0024	.0715
134	18	.6643	.0025	.0740
135	17	.6617	.0026	.0766
136	16	.6585	.0032	.0798
137	15	.6553	.0032	.0830
138	14	.6515	.0037	.0868
139	13	.6478	.0038	.0905
140	12	.6439	.0039	.0944
141	11	.6397	.0042	.0986
142	10	.6348	.0048	.1035
143	9	.6295	.0054	.1088
144	8	.6213	.0082	.1170
145	7	.6111	.0102	.1272
146	6	.6000	.0111	.1383
147	5	.5886	.0114	.1497
148	4	.5735	.0151	.1648
149	3	.5461	.0274	.1922
150	2	.5140	.0321	.2243
151	1	.4201	.0940	.3182

Table 22. Policies (beta weights) for individual female school board members.

Judge	Profile Cues									R2
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
1	.48	.54	-.19	.24	.09	-.01	.01	-.37	.02	.6889
2	.53	.47	.07	.11	.05	-.15	-.05	-.16	.08	.6623
3	.72	.61	-.11	.13	.05	-.05	.01	-.01	.02	.8138
4	.55	.59	-.12	.40	.06	.03	.03	-.03	.07	.7171
5	.54	.72	-.03	.13	.05	.05	.03	-.13	.02	.8021
6	.55	.44	-.05	.17	-.01	-.14	-.03	-.16	-.12	.5525
7	.85	.35	-.16	.13	.11	-.06	.08	-.11	-.02	.7811
8	.59	.63	-.08	.05	-.03	-.06	-.05	-.10	-.04	.6959
9	.76	.55	-.11	.28	-.02	-.03	-.01	.10	.04	.7984
10	.79	.47	-.12	.08	.07	-.06	.03	-.09	-.06	.7909
11	.47	.56	-.12	.03	.11	-.11	.20	-.21	-.06	.6324
12	.56	.59	.00	.17	.12	-.02	-.03	-.01	-.02	.7188
13	.61	.36	-.17	.15	.04	-.15	-.12	-.21	-.06	.5503
14	.76	.50	.00	.12	-.03	-.05	.03	.08	.03	.7760
15	.61	.63	-.09	.05	.16	-.01	-.13	-.14	-.10	.7884
16	.35	.54	-.01	.18	.01	-.16	.03	-.25	.01	.6144
17	.40	.68	.07	.04	-.11	-.05	.04	-.01	.05	.6159
18	.51	.72	-.20	-.03	.04	-.16	.03	-.08	-.09	.7982
19	.75	.43	-.27	.17	-.09	-.15	.02	.09	-.18	.7289
20	.23	.36	-.02	.13	.05	-.24	.16	-.30	-.23	.5063
21	.76	.43	.06	.05	.05	-.04	.05	.00	.00	.7611
22	.77	.65	-.01	.09	-.02	-.05	.01	-.02	-.01	.9427
23	.67	.42	-.06	.18	-.01	-.08	.15	-.10	.09	.6322
24	.60	.44	-.20	.08	.06	.02	.20	-.10	-.10	.5139
25	.78	.49	-.19	.08	.02	-.09	-.05	-.08	-.07	.7743
26	.51	.47	.02	.12	-.11	-.02	.01	.07	.10	.4550
27	.24	.24	-.01	-.28	-.28	.15	-.45	.23	-.01	.6641
28	.86	.43	-.07	.16	-.02	-.07	-.02	.05	-.04	.8475
29	.28	.15	-.18	.43	.11	-.20	.06	-.42	-.32	.6370
30	.36	.38	.24	-.05	.13	.04	-.18	.04	-.04	.2289
31	.56	.53	-.23	.25	.14	.07	.09	.02	-.04	.5247
32	.47	.40	-.12	.25	.05	-.22	.00	-.14	-.07	.5227
33	.57	.52	-.05	-.01	-.07	-.17	.02	-.19	-.17	.6393
34	.55	.55	-.01	.21	.14	-.04	-.10	-.10	-.09	.7117
35	.43	.44	.06	.10	.04	-.11	.07	-.17	-.02	.3939
36	.52	.50	.00	-.01	.02	-.12	-.05	.08	.01	.5435
37	.64	.42	-.17	.05	-.02	-.05	.01	-.04	-.10	.5274
38	.37	.25	-.13	.00	-.14	-.37	.01	-.13	-.36	.5019
39	.45	.35	-.28	.22	-.06	-.13	.05	-.23	-.14	.4003
40	.45	.39	-.15	.10	.12	-.21	-.04	-.06	-.26	.4551
41	.71	.06	-.05	.41	.00	-.08	.23	-.28	-.08	.7032

Table 22--continued.

Judge	Profile Cues									R ²
	1 OSR	2 PCR	3 AGE	4 SUP	5 PRN	6 GEN	7 DEG	8 JOB	9 LOC	
42	.38	.45	-.26	.19	.26	-.09	.08	-.20	-.05	.4787
43	.67	.57	-.17	.22	.00	-.11	.10	.05	.06	.7387
44	.73	.63	-.01	.08	-.02	-.04	-.07	.05	.08	.8821
45	.43	.25	-.18	.62	-.02	-.11	.02	.01	.01	.4609
46	.35	.53	-.39	.11	.02	.00	.16	-.01	-.17	.4510
47	.79	.84	.00	.13	-.08	-.01	.01	.05	-.08	.9294
48	.70	.54	-.04	.18	.04	.01	.17	.04	.10	.7565
49	.62	.42	-.34	.10	.15	.04	.09	-.38	.09	.6226
50	.57	.31	-.11	.48	-.04	-.09	-.01	-.16	.00	.5872
51	.75	.41	-.23	.16	-.08	.05	.09	-.10	-.11	.6038
52	.59	.62	-.06	.22	.00	.07	-.08	.06	.00	.6631
53	.66	.66	.02	.08	-.13	.05	.05	.04	.06	.7718
54	.63	.48	.10	-.14	-.21	-.10	-.03	-.19	-.14	.6482
55	.64	.54	-.13	.09	-.03	-.08	.12	.02	.03	.6413
56	.86	.38	-.16	.06	.01	.03	.05	.12	-.09	.7835
57	.72	.73	.03	-.01	-.01	-.01	-.01	-.02	-.03	.9809
58	.54	.74	-.28	.29	.05	.06	-.06	-.06	-.14	.7621
59	.80	.42	-.14	.15	.15	-.04	.09	-.10	.00	.8001
60	.54	.29	-.10	.38	.14	-.24	-.09	-.09	-.07	.6206
61	.50	.70	.00	-.09	.01	-.10	.12	-.13	.00	.7591
62	.42	.60	.00	.05	.10	-.07	.06	-.44	-.14	.8209
63	.72	.56	-.13	.01	.15	.05	.14	-.16	.06	.7938
64	.49	.59	.03	.28	-.05	-.04	.17	-.06	.11	.7110
65	.21	.59	.13	-.21	-.14	-.06	-.01	-.12	.11	.4133
66	.47	.56	-.01	.28	-.05	-.01	.22	-.05	.04	.6142
67	.55	.41	-.19	-.10	.16	.00	.11	-.18	.04	.4922
68	.71	.45	.06	.18	-.02	.02	-.01	-.01	.03	.6805
69	.48	.75	.11	.01	-.07	-.01	.07	.02	.01	.7776
70	.66	.67	-.01	.09	-.03	.04	.02	.11	.03	.8010

Table 23. Stages of the JAN procedure for female school board members.

Stage	Number of Policies	R ²	Successive R ² Drop	Accumulated R ² Drop
1	70	.7522	----	----
2	69	.7522	.0001	.0001
3	68	.7520	.0002	.0002
4	67	.7518	.0002	.0004
5	66	.7517	.0002	.0006
6	65	.7515	.0002	.0008
7	64	.7512	.0002	.0010
8	63	.7510	.0002	.0012
9	62	.7507	.0003	.0015
10	61	.7504	.0003	.0018
11	60	.7501	.0003	.0022
12	59	.7497	.0003	.0025
13	58	.7494	.0004	.0029
14	57	.7490	.0004	.0033
15	56	.7486	.0004	.0037
16	55	.7481	.0005	.0041
17	54	.7476	.0005	.0046
18	53	.7471	.0005	.0051
19	52	.7467	.0005	.0056
20	51	.7462	.0005	.0061
21	50	.7457	.0005	.0066
22	49	.7451	.0006	.0072
23	48	.7445	.0006	.0078
24	47	.7438	.0006	.0084
25	46	.7431	.0007	.0091
26	45	.7424	.0007	.0099
27	44	.7416	.0008	.0106
28	43	.7408	.0008	.0114
29	42	.7400	.0008	.0122
30	41	.7391	.0009	.0131
31	40	.7383	.0009	.0140
32	39	.7374	.0009	.0148
33	38	.7365	.0009	.0157
34	37	.7356	.0009	.0166
35	36	.7346	.0010	.0177
36	35	.7335	.0011	.0187
37	34	.7325	.0011	.0198
38	33	.7313	.0011	.0209
39	32	.7300	.0013	.0222
40	31	.7287	.0013	.0235
41	30	.7274	.0013	.0249
42	29	.7260	.0014	.0262
43	28	.7246	.0014	.0277

Table 23--continued.

Stage	Number of Policies	R ²	Successive R ² Drop	Accumulated R ² Drop
44	27	.7230	.0016	.0293
45	26	.7213	.0017	.0310
46	25	.7196	.0017	.0326
47	24	.7179	.0017	.0343
48	23	.7161	.0019	.0362
49	22	.7141	.0019	.0381
50	21	.7122	.0019	.0400
51	20	.7102	.0020	.0420
52	19	.7080	.0022	.0442
53	18	.7058	.0022	.0465
54	17	.7031	.0027	.0492
55	16	.7002	.0029	.0521
56	15	.6970	.0032	.0553
57	14	.6937	.0032	.0585
58	13	.6903	.0035	.0620
59	12	.6865	.0038	.0657
60	11	.6820	.0045	.0702
61	10	.6775	.0045	.0748
62	9	.6721	.0054	.0802
63	8	.6666	.0055	.0856
64	7	.6597	.0069	.0926
65	6	.6526	.0071	.0996
66	5	.6420	.0106	.1103
67	4	.6265	.0155	.1258
68	3	.6028	.0237	.1495
69	2	.5510	.0518	.2013
70	1	.4104	.1406	.3418

Table 24. Mean and standard deviation of the criterion rating for each school board member in first class school districts.

Judge	Mean	Standard Deviation
1	23.89	26.01
2	37.22	20.76
3	34.44	19.14
4	40.49	9.87
5	41.32	34.01
6	31.11	31.82
7	48.61	20.43
8	58.96	13.69
9	45.79	15.77
10	15.28	24.15
11	42.49	27.90
12	34.71	25.46
13	40.44	26.02
14	51.74	8.59
15	52.19	21.17
16	42.76	22.95
17	33.39	29.61

Table 25. Mean and standard deviation of the criterion rating for each school board member in second class school districts.

Judge	Mean	Standard Deviation
1	45.14	17.16
2	43.89	24.65
3	24.86	25.28
4	42.00	22.12
5	48.19	19.10
6	52.35	27.57
7	39.22	27.40
8	50.26	23.00
9	33.33	21.21
10	51.65	20.17
11	41.65	24.35
12	28.32	23.38
13	39.71	22.45
14	38.43	27.07
15	46.88	19.46
16	51.51	23.10
17	31.65	21.04
18	36.72	25.82
19	49.17	14.55
20	55.72	29.52
21	39.03	15.47
22	35.81	32.83
23	46.65	23.83
24	26.94	20.11
25	44.93	17.36
26	45.21	18.77
27	38.68	18.77
28	55.32	18.94
29	56.65	21.56
30	36.25	16.62
31	55.83	12.39
32	48.72	23.03
33	27.14	12.44
34	46.22	26.46
35	53.54	27.96
36	44.35	14.02
37	49.58	17.07
38	50.21	14.99
39	46.04	18.35
40	19.72	16.37
41	43.68	22.17
42	57.15	15.52

Table 25--continued.

Judge	Mean	Standard Deviation
43	57.29	15.70
44	46.65	19.96
45	45.47	13.57
46	44.44	22.04
47	45.69	13.00
48	46.67	19.51
49	42.92	14.95
50	29.50	20.69
51	40.32	24.87
52	52.71	11.36
53	50.61	22.52
54	52.24	17.76
55	50.33	20.59
56	24.58	23.27
57	44.31	17.29
58	51.39	12.51
59	51.46	15.80
60	47.49	18.80
61	51.92	24.87
62	48.89	17.92
63	52.36	18.14
64	34.89	16.04
65	28.75	21.77
66	36.11	20.11
67	45.56	19.85
68	37.42	30.40
69	42.99	7.85
70	59.10	17.91
71	45.25	17.99
72	52.76	20.87
73	12.57	19.63
74	63.44	16.34
75	43.47	23.94
76	56.31	25.81
77	37.15	25.10
78	54.17	11.70
79	16.35	25.34
80	40.00	17.48
81	41.25	20.54
82	37.64	15.85
83	57.92	13.80
84	44.99	20.58
85	42.00	7.54
86	16.53	29.16

Table 25--continued.

Judge	Mean	Standard Deviation
87	42.22	10.96
88	38.06	17.83
89	55.00	19.15
90	42.78	22.65
91	46.54	23.14
92	47.68	25.96
93	44.72	26.52
94	34.29	18.42
95	52.21	18.95
96	47.17	29.04
97	52.21	18.95
98	25.69	17.23
99	47.15	20.07
100	45.00	19.76
101	52.64	20.48
102	48.33	13.74
103	58.86	23.05
104	40.19	19.59
105	49.57	19.14
106	55.76	14.59
107	48.58	28.87
108	18.47	23.31
109	59.47	18.18
110	43.13	18.77
111	53.13	18.04
112	47.99	27.86
113	47.21	16.64
114	34.03	24.32
115	52.88	25.88
116	70.81	27.44
117	45.42	19.43
118	40.56	22.10
119	41.60	21.73
120	41.67	20.00
121	56.17	29.80
122	48.96	16.22
123	42.21	28.13
124	50.63	18.69
125	54.94	23.35
126	31.67	23.15
127	32.36	21.05
128	59.88	23.22
129	46.93	24.84

Table 26. Mean and standard deviation of the criterion rating for each school board member in third class school districts.

Judge	Mean	Standard Deviation
1	37.50	13.72
2	23.06	22.77
3	48.47	19.98
4	36.36	24.61
5	52.83	23.20
6	54.57	21.03
7	21.51	31.53
8	43.46	27.88
9	40.28	20.29
10	28.32	29.50
11	48.18	24.10
12	39.44	21.01
13	46.24	25.91
14	40.63	13.49
15	39.10	11.71
16	44.15	16.85
17	43.61	20.43
18	36.93	16.50
19	47.01	11.35
20	43.58	21.81
21	56.67	15.37
22	50.56	14.13
23	42.26	13.49
24	44.44	18.02
25	30.33	20.57
26	45.42	9.99
27	24.43	27.80
28	48.06	19.55
29	21.81	12.65
30	58.89	16.63
31	6.53	17.33
32	50.85	32.95
33	50.14	18.22
34	34.58	19.86
35	31.10	24.49
36	52.29	26.78
37	52.64	15.55
38	52.92	10.95
39	52.29	18.67
40	45.69	14.98
41	47.36	17.74
42	50.83	13.87
43	50.64	22.83

Table 26--continued.

Judge	Mean	Standard Deviation
44	11.11	20.59
45	61.04	16.37
46	50.42	23.87
47	42.35	23.97
48	51.10	22.80
49	34.72	15.81
50	39.86	21.63
51	39.85	19.21
52	28.04	24.72
53	50.49	19.08
54	45.21	10.91
55	43.40	18.25
56	34.82	23.92
57	59.29	18.10
58	37.36	21.15
59	56.79	21.53
60	39.03	21.32
61	60.29	18.16
62	49.24	20.13
63	43.54	29.37
64	42.92	16.87
65	14.01	24.54
66	48.96	13.77
67	45.63	28.49
68	50.25	22.24
69	37.64	24.75
70	41.81	19.80
71	47.50	17.70
72	45.42	20.34
73	34.44	12.68
74	48.78	16.23
75	44.01	27.00

Table 27. Mean and standard deviation of the criterion rating for each male school board member.

Judge	Mean	Standard Deviation
1	45.14	17.16
2	37.50	13.72
3	23.06	22.77
4	43.89	24.65
5	48.19	19.10
6	48.47	19.98
7	50.26	23.00
8	28.32	23.38
9	38.43	27.07
10	46.88	19.46
11	51.51	23.10
12	55.72	29.52
13	37.22	20.76
14	46.65	23.83
15	40.28	20.29
16	44.93	17.36
17	45.21	18.77
18	38.68	20.36
19	56.65	21.56
20	48.18	24.10
21	36.25	16.62
22	55.83	12.39
23	48.72	23.03
24	39.44	21.01
25	46.24	25.91
26	40.63	13.49
27	44.35	14.02
28	49.58	17.07
29	39.10	11.71
30	44.15	16.85
31	50.21	14.99
32	43.61	20.43
33	46.04	18.35
34	36.93	16.50
35	47.01	11.35
36	43.58	21.81
37	57.29	15.70
38	56.67	15.37
39	50.56	14.13
40	44.44	22.04
41	42.36	13.49
42	30.33	20.57
43	45.42	9.99
44	42.92	14.95

Table 27--continued.

Judge	Mean	Standard Deviation
45	29.50	20.69
46	24.43	27.80
47	40.32	24.87
48	52.71	11.36
49	48.06	19.55
50	31.11	31.82
51	50.61	22.52
52	52.24	17.76
53	50.33	20.59
54	44.31	17.29
55	51.39	12.51
56	51.46	15.80
57	47.49	18.80
58	58.89	16.63
59	51.92	24.87
60	48.89	17.92
61	52.36	18.14
62	34.79	16.04
63	50.85	32.95
64	28.75	21.77
65	36.11	20.11
66	45.56	19.85
67	37.42	30.40
68	45.25	17.99
69	50.14	18.22
70	34.58	19.86
71	58.96	13.69
72	31.10	24.49
73	45.79	15.77
74	12.57	19.63
75	63.44	16.34
76	43.47	23.94
77	56.31	25.81
78	52.92	10.95
79	37.15	25.10
80	45.69	14.98
81	54.17	11.70
82	16.53	25.34
83	47.36	17.74
84	40.00	17.48
85	50.83	13.87
86	41.25	20.54
87	50.64	22.83
88	37.64	15.85

Table 27--continued.

Judge	Mean	Standard Deviation
89	57.92	13.80
90	44.99	20.58
91	42.00	7.54
92	11.11	20.59
93	61.04	16.37
94	50.42	23.87
95	42.22	10.96
96	38.06	17.83
97	55.00	19.15
98	42.35	23.97
99	51.10	22.80
100	34.72	15.81
101	39.86	21.63
102	40.44	26.02
103	42.78	22.65
104	46.54	23.14
105	47.68	25.96
106	44.72	26.52
107	34.29	18.42
108	28.04	24.72
109	52.21	26.27
110	52.21	18.95
111	50.49	19.08
112	25.69	17.23
113	47.15	20.07
114	52.64	20.48
115	45.21	10.91
116	40.19	19.59
117	49.57	19.14
118	34.72	23.92
119	37.36	21.15
120	48.58	28.87
121	18.47	23.31
122	59.47	18.18
123	60.29	18.16
124	43.13	18.77
125	53.13	18.04
126	47.99	27.86
127	47.21	16.64
128	43.54	29.37
129	51.74	8.59
130	70.81	27.44
131	45.42	19.43
132	40.56	22.10

Table 27--continued.

Judge	Mean	Standard Deviation
133	41.67	20.00
134	56.17	29.80
135	52.19	21.17
136	48.96	16.22
137	42.21	28.13
138	50.63	18.69
139	54.94	23.35
140	48.96	13.77
141	45.63	28.49
142	50.25	22.24
143	37.64	24.75
144	41.81	19.80
145	32.36	21.05
146	59.88	23.22
147	47.50	17.70
148	46.93	24.84
149	45.42	20.34
150	34.44	12.68
151	48.78	16.23

Table 28. Mean and standard deviation of the criterion rating for each female school board member.

Judge	Mean	Standard Deviation
1	23.89	26.01
2	24.86	25.28
3	42.00	22.12
4	52.35	27.57
5	39.22	27.40
6	33.33	21.21
7	51.65	20.17
8	36.36	24.61
9	41.65	24.35
10	39.71	22.45
11	31.65	21.04
12	36.72	25.82
13	49.17	14.55
14	52.83	23.20
15	54.57	21.03
16	39.03	15.47
17	21.51	31.53
18	43.46	27.88
19	35.81	32.83
20	26.94	20.11
21	28.32	29.50
22	55.32	18.94
23	34.44	19.14
24	27.14	12.44
25	46.22	26.46
26	53.54	27.96
27	19.72	16.37
28	43.68	22.17
29	40.49	9.87
30	57.15	15.52
31	46.65	19.96
32	45.47	13.57
33	45.69	13.00
34	44.44	18.02
35	46.67	19.51
36	41.32	34.01
37	24.58	23.27
38	21.81	12.65
39	6.53	17.33
40	42.99	7.85
41	59.10	17.91
42	48.61	20.43
43	52.76	20.87

Table 28--continued.

Judge	Mean	Standard Deviation
44	52.29	26.78
45	15.28	24.15
46	52.64	15.55
47	52.29	18.67
48	42.49	27.90
49	34.71	25.46
50	16.53	29.16
51	39.85	19.21
52	47.17	29.04
53	45.00	19.76
54	48.33	13.74
55	58.86	23.05
56	43.40	18.25
57	59.29	18.10
58	56.79	21.53
59	55.76	14.59
60	39.03	21.32
61	49.24	20.13
62	34.03	24.32
63	52.88	25.88
64	41.60	21.73
65	42.92	16.87
66	42.76	22.95
67	14.01	24.54
68	31.67	23.15
69	33.39	29.61
70	44.01	27.00

APPENDIX B

INSTRUCTIONS TO PARTICIPANTS IN THE STUDY

PARTICIPANT PACKAGE:**A SIMULATION OF MONTANA SCHOOL BOARD MEMBER
DECISION MAKING REGARDING THE HIRING
OF A SUPERINTENDENT**Introduction

Educational research has many purposes. One of its purposes is to formulate theories that attempt to explain human behavior. Since it is not always possible or desirable to conduct experiments in an actual setting, simulations have proven to be accurate representations of the actual setting.

As a participant in this survey, you will be asked to make 72 judgments. There are 72 superintendent applicant profiles included in this packet, each of which contain nine pieces of information about hypothetical applicants for the position of superintendent. The information contained in each of these profiles is explained in one of the following sections.

For purposes of this simulation you are to make your judgments from the point of view of a school board member of a hypothetical school district. You may use the setting of the school district in which you have been a school board member for this past school year, or the setting of an imaginary school district. The important thing to do is

to maintain a consistent reference point throughout the simulation. In other words, respond to all of the material in this instrument using the same basis for making your judgments.

In summary: Given the information that you are provided in each profile, make a decision about the probability that each candidate would have of being hired as your superintendent in your actual, or imaginary, school district.

Purpose of This Research

The purpose of this research is to determine how different kinds of information about applicants for the position of superintendent of schools affects how board members judge the prospects of hiring that particular applicant. There are undoubtedly many factors that influence a board member's judgment about who should be hired as a superintendent. It is not possible to include all of the factors that one might consider in the process. For purposes of this study, a total of nine variables that most often are mentioned in the hiring of Montana school superintendents have been included. The nine variables are:

- (1) Organizational skills
- (2) People-centered skills
- (3) Age
- (4) Number of years experience as a superintendent

- (5) Number of years experience as a principal
- (6) Gender
- (7) Highest degree earned
- (8) Current job title
- (9) Location of current job (in-state or out-of-state)

The following section includes a description of each of the variables used in the Superintendent Profile Packet, and a couple of judgment ratings which illustrate how to proceed with the process of using the information provided to make judgments on the probability of hiring each of the prospective applicants for the position of superintendent. The hypothetical applicant that, in your judgment, contains the most favorable list of variables in comparison to others should appropriately be assigned a rating of 100 or near 100. The hypothetical applicant that, in your judgment, contains the least favorable list of variables in comparison to others should appropriately be assigned a rating of zero (0) or near zero.

After studying the following information, your task will be to make 72 judgments about the hypothetical applicants for the position of superintendent and assign each a rating ranging from zero (0) to 100.

Description of the Variables

Each person who is, or desires to be, a school superintendent has a certain amount of skills that relate well to the operation of a school district's non-personnel

aspects. Some of these non-personnel aspects of the job of being a superintendent would include:

- (1) Knowledge of curriculum
- (2) Knowledge of school finance
- (3) Short- and long-range planning skills
- (4) Plant management and facilities development skills

These aspects of the superintendent's role, called "organizational skills," can be measured and rated on the basis of zero (0) to 100 for the purposes of this study. Each of the hypothetical superintendent applicants will have a rating for his/her organizational skills that contributes to the overall profile of the applicant.

Each person who is, or desires to be, a school superintendent has a certain amount of skills that relate well to the operation of a school district's personnel aspects. Some of the personnel-related aspects of the job of being a superintendent would include:

- (1) Personnel administration
- (2) Public relations
- (3) Community relations
- (4) Board member relations

These aspects of the superintendent's role, called "people-centered skills," can be measured and rated on the basis of zero (0) to 100 for the purposes of this study. Each of the hypothetical superintendent applicants will have a rating for his/her people-centered skills that contributes to the overall profile of the applicant.

There are seven demographic variables that have been included in each profile that are self-explanatory. These variables include the age of the applicant, the number of years of experience that the applicant has as a superintendent and as a principal, the gender of the applicant, the highest educational degree earned by the applicant, the current job title of the applicant, and the location of the current job -- either in Montana or out-of-state.

Please take a minute or so to look at a couple of sample profiles by which you can study how a rating might be established for each applicant for the position of superintendent.

Sample Profile #1

SUPERINTENDENT APPLICANT PROFILE # _____

Organizational Skills Rating:	<u>60</u>
People-Centered Skills Rating:	<u>30</u>
Age of Applicant:	<u>45</u>
Number of Years Experience:	<u>8</u>
as a superintendent -	<u>2</u>
as a principal -	
Gender of Applicant:	<u>male</u>
Highest Degree Earned:	<u>Doctorate</u>
Current Job Title:	<u>Superintendent</u>
Current Job Location:	<u>In state</u>

RATING SCALE

100	High likelihood that this applicant would be hired as superintendent in this district.
80	
60	Your Rating for this Profile is:
40	<u>50</u>
20	Low likelihood that this applicant would be hired as superintendent in this district.
0	

- (1) The "organizational skills" rating of this applicant is at the 60th percentile,

slightly above what would be considered average.

- (2) The "people-centered skills" rating of this applicant is at the 30th percentile, which is greatly below average.
- (3) The applicant is a 45-year-old male who has had eight years experience as a superintendent and two years experience as a principal.
- (4) Other information indicates that this applicant holds a doctorate degree and is currently working as a superintendent of schools somewhere in the state of Montana.

After studying this profile, a judgment is made by the rater predicting the likelihood that this applicant would be hired as superintendent in the rater's actual, or imaginary, school district. In this example, the rater (board member) gave the sample profile a rating of 50. This would mean that there is a 50 percent likelihood, or one chance in two, that this applicant would be hired as superintendent.

Please proceed to the next sample profile for another example, and some final instructions before you begin working with the actual survey.

Sample Profile #2

SUPERINTENDENT APPLICANT PROFILE # _____

Organizational Skills Rating:	<u>50</u>
People-Centered Skills Rating:	<u>70</u>
Age of Applicant:	<u>36</u>
Number of Years Experience: as a superintendent -	<u>0</u>
as a principal -	<u>7</u>
Gender of Applicant:	<u>female</u>
Highest Degree Earned:	<u>Master's</u>
Current Job Title:	<u>Principal</u>
Current Job Location:	<u>out of state</u>

RATING SCALE

100	High likelihood that this applicant would be hired as superintendent in this district.
80	
60	Your Rating for this Profile is:
40	<u>60</u>
20	Low likelihood that this applicant would be hired as superintendent in this district.
0	

- (1) The "organizational skills" rating for this applicant is at the 50th percentile, which is exactly average.
- (2) The "people-centered skills" rating of this applicant is at the 70th percentile, which is greatly above average.
- (3) The applicant is a 36-year-old female, who has not had any previous experience as a superintendent but has had seven years experience as a principal.
- (4) Other information indicates that this applicant possesses a master's degree and is currently employed as a principal somewhere outside of the state of Montana.

After studying this profile, a judgment is made by the rater predicting the likelihood of this applicant being hired in the school district as a superintendent to be 60 percent, or six chances out of ten.

Final Instructions for the Simulation

It is important that you place a rating (score) on each of the profiles presented. You may review the information explaining the variables at any time. Please place your rating in the space provided on the right-hand side of each profile in the rating scale section.

When you are finished with all 72 profiles, please discard all materials that are not bound into the Superintendent Profile Packet, and RETURN ONLY THE BOOKLET in the stamped, self-addressed envelope that has been provided.

Thank you again for your contribution to this research project.

APPENDIX C

SAMPLE OF SURVEY INSTRUMENT

SUPERINTENDENT APPLICANT PROFILE # 5

Organizational Skills Rating: 20
 People-Centered Skills Rating: 90
 Age of Applicant: 40
 Number of Years Experience:
 as a superintendent - 5
 as a principal - 2
 Gender of Applicant: male
 Highest Degree Earned: Doctorate
 Current Job Title: Superintendent
 Current Job Location: In state

RATING SCALE

100 High Likelihood that this applicant would be hired as superintendent in this district.
 80
 60 Your Rating for this Profile is:
 40 _____
 20 Low Likelihood that this applicant would be hired as superintendent in this district.
 0

SUPERINTENDENT APPLICANT PROFILE # 6

Organizational Skills Rating: 80
 People-Centered Skills Rating: 50
 Age of Applicant: 43
 Number of Years Experience:
 as a superintendent - 5
 as a principal - 3
 Gender of Applicant: male
 Highest Degree Earned: Master's
 Current Job Title: Superintendent
 Current Job Location: out of state

RATING SCALE

100 High Likelihood that this applicant would be hired as superintendent in this district.
 80
 60 Your Rating for this Profile is:
 40 _____
 20 Low Likelihood that this applicant would be hired as superintendent in this district.
 0

SUPERINTENDENT APPLICANT PROFILE # 7

Organizational Skills Rating: 30
 People-Centered Skills Rating: 90
 Age of Applicant: 50
 Number of Years Experience:
 as a superintendent - 12
 as a principal - 4
 Gender of Applicant: female
 Highest Degree Earned: Doctorate
 Current Job Title: Superintendent
 Current Job Location: In state

RATING SCALE

100 High Likelihood that this applicant would be hired as superintendent in this district.
 80
 60 Your Rating for this Profile is:
 40 _____
 20 Low Likelihood that this applicant would be hired as superintendent in this district.
 0

SUPERINTENDENT APPLICANT PROFILE # 8

Organizational Skills Rating: 80
 People-Centered Skills Rating: 30
 Age of Applicant: 52
 Number of Years Experience:
 as a superintendent - 10
 as a principal - 7
 Gender of Applicant: female
 Highest Degree Earned: Master's
 Current Job Title: Superintendent
 Current Job Location: In state

RATING SCALE

100 High Likelihood that this applicant would be hired as superintendent in this district.
 80
 60 Your Rating for this Profile is:
 40 _____
 20 Low Likelihood that this applicant would be hired as superintendent in this district.
 0

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