

AN EXAMINATION OF ATTITUDES TOWARD WOMEN AS  
MANAGERS IN PUBLIC SCHOOLS

by

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## Chapter 1

### INTRODUCTION

The typical teacher of the colonial period was a male schoolmaster who basically taught reading and arithmetic. Women teachers existed but were a minority, teaching primarily in the "dame's" schools in which pupils studied in the teacher's home (Elsbree, 1939).

Thousands of schools were created as public education expanded during the nineteenth century, and it was not long before the schools were staffed primarily by women. By 1870 there were 123,000 women teaching and 78,000 men. By 1928, women constituted 85 percent of the elementary school teachers and 55 percent of the elementary school principals (National Education Association, 1973). Year after year the proportion of women increased, and by 1930 there were five times as many female as male teachers, and the men who did teach taught principally in the higher grades (Tyack, 1967).

Sociologists have noted that societies tend to assign work roles to men and women based on the rewards available in the occupation. Men tend to withdraw from those occupations in which women, who have historically been willing to work for less money, predominate (Kanter, 1977). This tendency is demonstrated in the administrative ranks within schools where the economic rewards are considerably greater than for classroom teaching (NEA, 1973). Administrative positions in education have historically been predominantly held by men, despite the instance of greater numbers of female elementary

school principals in the late twenties (Tyack, 1967). Although the percentage of female school principals has steadily decreased since the late 1920's, decline of women in education administration has been particularly evident since around 1950. Cited as reasons are Lyman and Speizer's contention that "administrative jobs have been redefined as management rather than teaching" (1980), and the climate of the 1950's and early 1960's which did not seem to foster an increased career drive for many women (Freidan, 1963).

Since World War II, the balance of men and women principals has changed, with women steadily losing administrative ground. In the 1940's, throughout the United States, approximately 41 percent of elementary principals were women; in the 1950's, women constituted 38 percent of elementary principals; in the 1960's their number had dwindled to 22 percent (NEA, 1973). Despite the numerous leadership studies indicating that the leadership performance of women was comparable to and generally as effective as that of men (Grobman & Hines, 1956; Barter, 1959; Hemphill, Griffiths, & Frederiksen, 1962; Morsink, 1970; Cobbely, 1970; Davenport, 1976; Gross & Trask, 1976), men still retain and continue to acquire most of the administrative jobs.

The majority of school administrators are employed in a hierarchy of positions leading to the district superintendency. These positions are familiar to most: assistant principal, elementary and secondary principal, and assorted district level positions such as assistant and associate superintendent. Though women are the majority



of employees in education, they are the minority of administrators at all levels of education, and their numbers decrease with each step up the hierarchical ladder with very little representation at the top. National Education Association data estimating the number of men and women at each level of the educational structure across the nation show that while women represented an estimated 67.2 percent of the total teaching force in 1970, they constituted less than 16 percent of all assistant principals, principals, and, at the district level, administrative assistant to the superintendent. They were represented in even smaller numbers in higher-level district positions, constituting 2.9 percent of all assistant superintendents, 7.5 percent of all deputy and associate superintendents, and finally, only 0.6 percent of all superintendents. Within all categories women were more highly represented at the elementary school level than at the secondary level (NEA, 1971).

In 1973, women still made up 85 percent of elementary school faculties, but only 18 percent of the principals were women. At the high school level, women represented 50 percent of the teachers but only 3 percent of the principals (NEA, 1973). These figures have changed little over the last decade. Data from a study of women administrators in New England in 1977-1978 shows approximately the same ratio of men to women as indicated by the national figures compiled in 1970 (Kelsey, 1978). Frasher and Frasher (1979) report that the percentage of female principals has declined from 15.2 percent in 1970-1971 to 12.9 percent in 1976.

Additionally, Frasher and Frasher (1979) say that of 13,037 local superintendents in the United State, 65 are women. Since so few women are appointed to a principalship, it is not surprising that very few acquire the superintendent position. They observe that the more numerous central office women administrators who are in staff positions obscure the fact that very few women are in line positions in the public schools. Fishel and Pottker (1977) further relate that information on the sex of educational leaders is not collected in any uniform or systematic fashion, and that those who might be able to bring about any change are often unaware of the extent of the problem.

Schmuck says "The management of our schools has always been dominated by men, but today there is a prevailing social norm that management is a man's job." Schmuck says there are forces in the education profession which perpetuate the cycle that encourages men and discourages women seeking administrative positions (1975).

#### Statement of the Problem

Although a number of studies done in business have indicated that discrimination against women in management positions does exist (Bennett, 1964; Schwartz, 1970; Schein, 1973; Terborg, 1977), less is known with regard to women in management positions in the educational setting. Thus, the purpose of the study was to determine if superintendents of public schools view women as capable managers and to determine if male superintendents perceive the managerial capabilities of women differently than do female superintendents. The

study attempted to measure whether any of the three factors: Factor I, general acceptance of females as managers; Factor II, feminine barriers; or Factor III, manager descriptive traits, as measured by the Women as Managers Scale, presented a barrier to women in educational management.

A second purpose was to determine the relationship between attitudes and selected demographic variables in the study. Are the attitudes of superintendents, both male and female, toward women as managers associated with the scarcity of women in management positions in public education? Do superintendents view women favorably as public school managers (i.e., principals)? Do the perceptions of male superintendents differ from those of female superintendents toward women as effective school managers?

The inclusion of the demographic variables in this study was an attempt to determine if other factors impact upon the superintendent's perception of women as effective public school managers. Previous research has shown the following variables to be related to attitudes and perceptions toward women as managers: size and population composition of the school district (Byrne, Hines, & McCleary, 1978; Schmuck, 1975; Goss, 1978); age (Johnson, 1970; Schein, 1973, 1976); experience or number of years as a superintendent (Estler, 1975; Saunders, 1976); educational attainment (Terborg, 1975); and attitude toward women's rights (Terborg, 1977).

## Hypotheses

The hypotheses of this study are as follows:

Hypothesis 1 - There will be no difference between the mean score of the male superintendents and the mean score of the female superintendents on each of the three subscales of the Women as Managers Scale.

Hypothesis 2 - There will be no difference in the mean score of the superintendents on the additional levels of the demographic variables on each of the three subscales of the Women as Managers Scale when broken down by the various levels of the other demographic variables:

- a. size of school district,
- b. population composition of school district,
- c. length of time as superintendent,
- d. age of the superintendent,
- e. educational attainment of the superintendent,
- f. attitude of superintendent toward women's rights.

Hypothesis 3 - There will be no interaction effects between the sex of the respondent and each of the demographic variables of this study for the three subscales of the Women as Managers Scale.

## Theoretical Base for the Study

There is a dichotomy of opinion regarding women's fitness or ability to effectively function in management positions. One explanation for the differential treatment of women stems from the assumption that women lack the aggressiveness, leadership ability, etc., often required of management positions. Research exists which supports this contention (Megargee, 1969). However a considerable body of research also exists which indicates that women do possess the

qualifications required of management level positions. Women have been reported as being similar to men in leadership behavior (Day & Stogdill, 1972) and potential managerial capability (Bass, Krusell & Alexander, 1971).

Much of the research on women in administration and management has been conducted under competing theories. The most commonly held theory is that women are not viewed as suitable for management and administration because of sex-role stereotyping and socialization. This theory holds that, from early childhood, girls are socialized to adopt appropriate feminine behaviors and that these behaviors (passivity, conformity, nonassertiveness) are inappropriate for organizational management. Schools have been identified by Fishel and Pottker (1977) as particularly effective socialization agents, with student-teacher interactions, content of textbooks, counseling advice, and sex typing of courses and school activities cited as areas reinforcing stereotypic differences between men and women. As a result of these socialization agents, boys and girls grow up to exhibit those behaviors stereotypically ascribed to men and women.

Thus, the differential treatment of women may be found in the existence of pervasive and persistent sex role stereotypes. In general, women are perceived as being dependent, passive, and subjective, and as lacking such attributes as competitiveness, ambition, and leadership ability (Broverman, Vogel, Broverman, Clarkson & Rosenkrantz, 1972). In the business context, women are perceived as being too emotional and otherwise unfit for managerial positions (Bowman, Worthy & Greyser, 1965; Orth & Jacobs, 1971; Schein, 1973).

Two major reasons given by researchers for the scarcity of women in managerial or leadership positions are the woman's place model and discrimination model (Estler, 1975). The woman's place model assumes that the absence of women in leadership positions is due to the differential socialization of women and men. As they grow up, women learn to be nurturant rather than aggressive, to defer to the opinions of men, and to prefer the leadership of men to women. Women have been accorded the role of caretaker, and many women believe that paid work is to be done only after the fulfillment of one's primary role as nurturer and caregiver. A career with hierarchical promotions, such as progression from teacher to administrator, requires commitment and would be extremely difficult if one's primary interest and commitment were to the home.

The discrimination model points to those institutional patterns in the training and hiring of administrators that encourages the promotion of men rather than women. Evidence supporting this model shows that there are frequently qualified women at each level of the organization who are passed over in favor of male applicants. This model says that women are reluctant to apply for management posts since they are much less often promoted to them. The discrimination model is supported by an examination of the length of time it takes to achieve the rank of principal or superintendent. Estler's analysis shows that the median number of years of teaching experience before appointment to an elementary principalship was five years for men, 15 for women, despite comparable training and credentials (Estler, 1975).

Kanter says that the turn-of-the-century period that generated the growth of large organizations and professional management also gave rise to Frederick I. Taylor's "scientific management" style of organizational leadership. Taylor's premise was that management methods employing routine, order, logic, production planning and cost analysis would ensure that organizations were both productive and profitable. While other models of organizational management theory came into existence during the 1930's and 1940's with greater emphasis on human relations and the informal aspects of work, the view of the role of management remained very similar to the earlier theories. Desirable managers were still seen as rational, logical, and able to control their emotions (1974). Kanter says that even a cursory examination of the stereotypic literature will show that women are not seen as rational and logical but rather are considered "temperamentally unfit" for management because they are regarded as emotional and frequently illogical. Kanter states "The historical legacy of American organizational theory tended to support a managerial viewpoint that is compatible with the masculine ethic and congruent with the nearly exclusively male occupancy of the management and administrative positions. This focus on managerial rationality could justify the absence of women from power" (1974).

Kanter further found in interviews with male corporation managers that they consciously chose men over women because men were a known quantity whereas women seemed unpredictable and incomprehensible. Managers work in an environment characterized by uncertainty and

unclear guidelines in many situations. According to Kanter, the pressures of daily work lead managers to minimize interpersonal tensions by choosing to work with people like themselves (Kanter, 1977).

The management concept in organizations encompassed business, industry, government, and education (Adkinson, 1981). From the beginning, essential traits required for successful management more nearly corresponded to the traits characteristic of men than of women (Kanter, 1977). Schein (1973, 1975) and Massengill and DeMarco (1979) conducted research which consistently found that these perceptions still prevail. The traits attributed to successful managers were significantly more similar to the traits characteristic of men than to the traits characteristic of women. Terborg (1977) further found that both men and women perceived men as more commonly possessing these traits than do women.

During the decade of the 1970's the aspiration of women in education became more pronounced. It appeared that the lack of motivation previously attributed to women, because so many of them did not seek administrative positions, was no longer evident. Women earned 21 percent of the master's degrees and 6 percent of the doctorates in educational administration in 1971-72. By 1975-1976, this number had increased to 29 percent of the master's degrees and 20 percent of the doctorates (Frasher and Frasher, 1979). Brown reports a 338 percent increase in female enrollment in business and management courses during this decade (1979).



The sex-role stereotyping and socialization theory appeared inadequate to explain the emergence of the increased number of women preparing for management careers. Women themselves were rejecting the idea that they did not possess the skills and characteristics essential for effective management. During this decade theories other than sex-role stereotyping and socialization were developed to explain the absence of women in management.

Among these was the career socialization theory which says that women are not included in the career socialization processes necessary to function as successful administrators. They are denied access to the informal network and the informal interactions and role-learning which are an integral part of organizations and which are often the arena in which major decisions are made. Women are much less frequently sponsored by an administrator than are men, and have less opportunity to be groomed for administration (Greenfield, 1977). Even highly ambitious and highly certified women may be denied consideration for sponsorship for an administrative position if they exhibit behavior contrary to the male administrator's stereotypic perception of appropriate female behavior.

Lack of role models for women has been cited as a factor in the career socialization theory to explain the absence of women from management. Schmuck found that women who knew other women in an administrative position viewed that circumstance as a positive influence on their aspirations to acquire an administration position (1975).

Additionally, women are limited by low visibility and little opportunity to interact with superiors to acquire skills needed for career advancement. The administrative positions most commonly held by women, i.e., supervisor curriculum coordinator, and the elementary principalship, do not provide for high community or professional visibility nor for the informal interaction with those who have the power to propel them up the career ladder (Atkinson, 1981).

Organizational theory has failed to adequately address why there are limited numbers of women and minorities in management positions in organizations. Wolff (1977) suggests that sex-role stereotyping and socialization have resulted in prejudices and informal rules that deny women equal opportunity to these positions. Kanter's view that men choose others like themselves in order to minimize interpersonal conflict may help explain the absence of women in top-level administration in organizations.

Wheatley (1977) says that Kanter's theory applies particularly to public schools. She says there are very few entry level positions into administration, and the available ones nearly always are extended to men at the secondary level. She says that in order to minimize status differences and reduce uncertainty, men are more likely to select other men, rather than women, for management positions.

Another theoretical explanation for the absence of women from top-level positions is the concept of mutually exclusive power wherein as one sex gains power, the other loses it. The male is more powerful in society (Unger, 1978) and if threatened by usurpation of his

dominant status, he will act in covert and overt ways to keep women from gaining dominance. Hennig and Jardim (1977) and Kanter (1977) concur that men in power structure the allowable array of behaviors that they will tolerate in women and that successful women must conform to their expectations.

A more recent theory has developed called the "devaluation of women" which encompasses the idea that males have great difficulty in establishing a masculine identity because of the prevalence of female role models and absence of male role models in the early formative years. Boys strenuously suppress in themselves what they perceive as feminine in order to strengthen their masculinity and assume the authority of men (Stockard & Johnson, 1979).

These competing theories offer some basis for understanding cultural attitudes toward women at the present time. The theory most commonly used in research to explain why so few women are in leadership positions is that of sex-role stereotyping and socialization, but the other theories have gained support. Perhaps as research on this subject continues, insight will be gained that will allow a better understanding of the prevailing condition of very few women in top levels of management. It may be possible that the decline of female school principals over the past five decades may be, in part, attributable to the attitudes of superintendents regarding the suitability of women for employment as middle managers, a position analogous to the school principalship in public school organization. Cronin and Pancrazio (1979) define school system management as middle-level executive positions.

### Justification of the Study

Women considering careers in education administration have little information as to how they will be received by male peers. Because there are so few empirical studies investigating school superintendents' attitudes toward women as possessing the characteristics necessary for successful public school management, the present study attempts to explore the association between the superintendents' attitudes and the scarcity of women in management positions in public education.

The present study attempts to determine if the attitudes of superintendents toward women as managers help to account for disproportionate ratio of men to women in managerial posts in public schools. Further, the study will investigate whether or not the sex of the superintendent affects the attitude held by the superintendent.

### Definitions of Terms Used

attitude - the degree of positive or negative affect associated with some psychological object. The concept "attitude" is used here to denote the "sum total of a man's inclinations and feelings, prejudice or bias, preconceived notions, ideas, fears, threats and convictions about any specified topic. Thus a man's attitude about pacifism means here all that he thinks and feels about peace and war. It is admittedly a subjective and personal affair" (Thurstone, 1928).

superintendent - for the purpose of this study, a superintendent is defined as a top-level educational administrator whose title was "Superintendent" as listed in the 1980-81 membership directory, Who's Who In Educational Administration, and who indicated on the questionnaire that he/she administered an operating school district which administers local schools.

stereotypes - something conforming to a fixed or general pattern; a standardized mental picture held in common by members of a group and representing an oversimplified opinion, affective attitude, or uncritical judgment (as of a person, a race, an issue, or an event; Webster's Dictionary, 1977).

sex role - a pattern of attitudes and actions appropriate to one's sex which a person takes in social situations (Sarbin, 1943).

discrimination - the differential treatment of individuals considered to belong to a particular social group (Williams, 1947).

sex role socialization - the acquisition of sex role behaviors and attitudes based on the gender identity possessed by the individual. Sex role socialization is culturally specific rather than innately biological as far as can be determined at this time (Freize, et al, 1978).

leadership - the behavior of an individual when he is directing the activities of a group toward a shared goal (Stogdill, 1974).

school district size - for the purposes of this study, the pupil enrollment of the district is used to divide the school districts into small (fewer than 5,000), medium (between 5,000 and 20,000), and large (over 20,000) sizes.

age of superintendent - for the purposes of this study, age is divided into three categories: less than 39, 40 to 49 and 50 or older.

school district location - for the purposes of this study the district location is designated urban (highly populated), suburban (somewhat less highly populated) and rural (not heavily populated).

#### Limitations of the Study

1. This study did not attempt to obtain data with respect to attitudes toward suitability of women for management positions from school board members. While board members are instrumental in employment of school personnel, the superintendent usually plays the major role in the selection and promotion of personnel into management ranks.
2. The sample for this research consisted of 115 female and 137 male members of the American Association of School Administrators. The title listed for each of these individuals was Superintendent in the 1980-81 membership directory, Who's Who in Educational Administration and they indicated on the questionnaire they administered a school district which administers local schools (with one exception). This sample included regional, county, area,

and district superintendents. It does not include assistant, associate, or deputy superintendents. The results of the study are limited to that sample, and, therefore, no attempt is made to generalize the results to individuals other than those specified in the sample.

3. One individual in the data base indicated that she did not administer a school district operating local schools, but that she had been a county superintendent seven years prior to holding her present position of state superintendent. The judgment was made to include her questionnaire in the study.

### Overview of the Study

Chapter 1 provides a framework for an investigation of superintendents' attitudes toward the suitability of women for employment as managers within the educational setting, principally for the public school principalship, the most common position at the middle-executive level.

The review of literature contained in Chapter 2 focuses on the studies concerned with stereotypic attitudes toward women in organizational administration and management including school administration. A collateral review of the leadership studies revealing the competency and ability of women in school administration is included.

Chapter 3 contains a discussion of the research design and methodology used in this study.

The findings of this investigation, based on the analysis of the data, are presented in Chapter 4.

Chapter 5 includes a summary of the study, conclusions, and recommendations.



## Chapter 2

### REVIEW OF RELATED LITERATURE

This chapter is devoted to a review of the literature related to women in leadership positions. It is organized around the following:

1. Stereotypic concepts based on previous research.
2. Studies of attitudes toward women as managers in business and education.
3. Leadership studies of men and women in school administration and management.

Social and employment trends indicate that increasing numbers of women are rejecting traditional views of appropriate sex role behavior and are seeking full-time employment in previously masculine-dominated occupations. However, in positions of authority and responsibility within the organization, the integration of women has achieved limited success. Differential treatment of women has been reported in selection (Fidell, 1970; Shaw, 1972), monetary remuneration (Levitin, Quinn & Staines, 1971; Terborg, & Ilgen, 1975), promotion policies (Day & Stogdill, 1972; Rosen & Jerdee, 1974), and employee development (Rosen & Jerdee, 1974).

Perhaps the greatest hindrance to the equality of the sexes is the burden of stereotypes which are generalities that may be true but very often, are dangerous oversimplifications. Women, along with minorities are frequently the targets of such thinking.

Stereotyping can provide change or it can impose traditional expectations. That is, individuals can be motivated by stereotyping to attempt to break down inappropriate images or classifications. Stereotyping has had a profound effect upon the assessment of self and the setting of personal goals. Many facets of life have been affected, but especially career development (Gordon & Strober, 1975).

### Stereotypic Concepts

Research demonstrates the contemporary existence of clearly defined sex role stereotypes for men and women. Compared to men, women are perceived as passive rather than competitive and self-assertive; submissive and conformist rather than independent and dominant; men are perceived as lacking interpersonal sensitivity, warmth, and expressiveness in comparison to women. Moreover, stereotypically masculine traits are more often perceived to be desirable than are stereotypically feminine characteristics. Most importantly, both men and women incorporate both the positive and negative traits of the appropriate stereotype into their self-concepts (Broverman, 1972). Since feminine traits are more negatively valued than are masculine traits, women tend to have more negative self-concepts than do men. The tendency for women to denigrate themselves in this manner can be seen as evidence of social pressure to conform to the sex-role standards of the society (Bowers, 1971).

The stereotypic differences between men and women described above appear to be accepted by a large segment of our society (Reische,

1972). Jerome Kagan and Howard Moss define the masculine role model in such terms as "sexually active," "athletic," "independent," "dominant," "courageous," and "competitive." Their feminine model includes the traits of "sexual timidity," "social anxiety," "fearing and avoiding problem situations," and "pursuing homemaking activities rather than career ones." Thus, although some of the individual words differ, the general images of the two roles are consistent (1962).

In 1974, Dr. Janet Chafetz, using a large sample of undergraduate college students, conducted a study of sex role stereotypes and developed a list of traits descriptive of masculine and feminine sex roles. Her descriptive traits were divided into five categories: physical, sexual, emotional, intellectual, and interpersonal. Her findings were consistent with the stereotypic characteristics attributed to men and women in previous studies.

Boverman, Vogel, Broverman, Clarkson and Rosenkrantz (1972) in their study of sex role stereotypes with almost a 1,000 respondents, comprised of married and single men and women from 17 to 60 years of age and who varied in educational level from elementary school to advanced degree level, found the following:

1. A strong consensus about the differing characteristics of men and women exists across groups which differ in sex, age, religion, marital status, and educational level.

2. Characteristics ascribed to men are positively valued more often than characteristics ascribed to women. The positively valued masculine traits form a cluster of related behaviors which entail

competence, rationality and assertion: the positively valued feminine traits form a cluster which reflect warmth and expressiveness.

3. The sex role definitions are implicitly and uncritically accepted to the extent that they are incorporated into the self-concepts of both men and women (1972).

Rosenkrantz found that stereotypical masculine characteristics have been found to be more socially desirable and more similar to the characteristics of the mentally healthy adult. The respondents in this study were mental health clinicians (Rosenkrantz, et al, 1968).

In a recent review of the literature, Terborg found that women as a group "describe themselves and are described by men as having self-concepts that are not suitable for management (posts)," (1977). This does not seem to be a reflection of reality. The Human Engineering Laboratory has isolated 22 abilities that are linked with managerial success. After evaluating thousands of tests administered to males and females, laboratory staff members assert with confidence that males and females, do not differ in the extent to which they possess 14 of these traits. Males do excel on the dimension of structural visualization but females excel on the ability to generate ideas, form word associations, and deal with abstractions (Bolton and Humphries, 1977).

#### Attitudes Towards Women in Management

Schein hypothesized that successful middle managers are perceived to possess those characteristics, attitudes and temperaments more

commonly ascribed to men in general than to women in general. She had 300 male middle managers rate women in general, men in general and successful middle managers on 92 descriptive terms. Her results confirmed the hypothesis that successful middle managers are perceived to possess characteristics, attitudes, and temperaments more commonly ascribed to men in general than to women in general. Schein suggests that the perceived similarity between the characteristics of successful middle managers and men in general increases the likelihood of a male rather than a female being selected for or promoted to a managerial position. She also found that subjects within the 49 and above age group perceived a resemblance between the characteristics of managers and those of women, suggesting a slight reduction of the differential stereotypical perceptions of men and women among older managers. "The negative reaction to women in management suggests that sex role stereotypes may be inhibiting women from advancing in the managerial work force," says Dr. Schein (1973).

Walter Wilson Bennett, at the University of Florida, conducted a survey aimed at assessing the attitudes of the presidents of the 500 largest corporations in the United States. The instrument consisted of 25 questions which asked for information about the particular corporation and the personal attitudes of each subject. Most of the items on the questionnaire were designed to assess the degree to which the respondents reflected attitudes supporting the traditional view of woman's role. The results of Bennett's survey revealed that many of the leaders of the business community held attitudes supporting the

stereotype that "woman's place is in the home" and not in business management (1964).

Bowman, Worthy and Greyser surveyed 1,000 male business executives in major organizations. Of those surveyed, 41 percent expressed mildly unfavorable to strongly unfavorable attitudes toward women in management (1965).

Progress of women may be impeded through the creation of occupational sex-typing. Since the high ratio of men to women prevails in the middle management position of school principal, there may be an informal belief that this is how it should be, and the principalship would then be classified as a masculine occupation. Epstein says, "Occupations can be described as 'sex typed' when a large majority of those in them are of one sex and when there is a normative expectation that is how it should be," (1970).

Schwartz reported studying the attitudes and business practices toward women through the survey of 900 business executives throughout the United States, 300 from large corporations, 300 from small corporations and 300 women in management positions. The study indicated that the utilization of women in line management had changed very little. However, a large majority of both big businesses and small businesses reported "very good" or "good" experience in utilization of women in management, with few reporting their experience as "excellent" or "poor". Almost half of the big business respondents and 76 percent of the small business respondents indicated that discrimination against women in management does exist. The respondents indicated that the

discrimination takes place in the following areas: on-the-job training, pay, promotion, and initial consideration for acceptance into management (1971).

Fretz and Hayman personally interviewed executives at the vice-presidential level in 20 business organizations. These executives indicated that long held attitudes toward the female's role has made it difficult for many individuals responsible for female equal opportunity to accept or support what they themselves are supposed to promote, for example, hiring women managers (1973).

Terborg and Ilgen conducted a study designed to examine both access and treatment discrimination in organizations. They found that while women had equal access in most of the organizations sampled in their study, the female was offered a significantly lower starting salary (1975).

Evidence also exists which indicates that women are being discriminated against on treatment variables other than salary. Discrimination has been reported in promotions (Day & Stogdill, 1972; Rosen & Jerdee, 1974), employee utilization (Kootz, 1970), and employee development (Rosen & Jerdee, 1974). Women often were passed over for promotion, or else were promoted into dead-end positions which were not commensurate with their experience or abilities.

It is not uncommon that expectations about competence levels differ solely on the basis of sex, so that the same output is judged as lower quality when observers believe it to have originated from a woman rather than from a man. Pheterson (1971) and Goldberg et al (1968) found that both males and females have lower expectations of a woman's

competence. That these perceptions exist is further borne out by a study done by Rosen and Jerdee exploring the effect of an applicant's sex on his evaluation as a candidate for a managerial position. This study submitted identical application forms with practically identical data pertaining to the suitability of the candidates for the job. Only the names were changed. For example, Mr. Phillip Lewis was changed to Mrs. Phyllis Lewis. Females were selected for managerial positions significantly less often than males (59 percent acceptance for females compared to 70 percent acceptance for males). The other variables of the study were the job demands on personnel decisions. Again females were perceived as rating lower than males on "technical potential" (Rosen & Jerdee, 1974). Clearly, these perceptions and expectations influence the job assignments male supervisors allocate, the performance level they expect, the way they assess tasks performed, and the candidates they consider when opportunities for advancement arise (Gordon & Strober, 1975).

According to Orth and Jacobs, one reason for the limited number of women executives or managers is that "traditional male attitudes toward women at the professional and managerial levels continue to block change" (1971). With respect to traditionally masculine occupations, access sex discrimination has been demonstrated repeatedly in employee selection (Fidell, 1970; Shaw, 1972). Overall, women are evaluated as less desirable men for masculine sex-typed jobs.

Surveys have been extensive in business organization but fewer have been undertaken in education. The data available on women in education administration is largely from attitude surveys.



The research that compares the administrative behavior of principals, both men and women, has been reviewed by Pottker and Fishel (1977) and Meskin (1974, 1979). The reviewers agree that the research appears to support that women in school administration exhibit behaviors consistent with sex role stereotypes. These reviewers maintain that it is not women's behavior which is inappropriate to school leadership, but rather the male managerial model.

Pottker and Fishel examined nine of the major administrative leadership behavioral studies to determine if any empirical evidence existed which would indicate that successful principal behavior was sex-linked. They concluded that these studies indicated that women were judged more effective by both teachers and superiors in instructional supervision, relations with students, relations with parents and community, and general administration. Despite these findings, a recent study finds that women still hold less than one percent of the nation's school superintendencies (Fishel & Pottker, 1977). Additionally, a decline from 10 percent in 1965 to seven percent in 1977 has occurred in the secondary school (junior and senior high schools) principalship (Byrne, Hines, & McCleary, 1978).

Several doctoral dissertations have studied the attitudes of various school factions toward women administrators in education. Barter, in her thesis on the attitudes of elementary school teachers toward women principals, found no evidence of an unfavorable attitude by women who work for women administrators (1957). Krause's study of teachers' attitudes toward women secondary school principals also

reported that women teachers had a favorable attitude toward women principals (1964).

A similar study of the attitudes of teachers and administrators toward women in administrative positions by Warwick concluded that women, as compared to men, had very favorable attitudes toward other women in school administration. She attributed men's less favorable attitude as a reluctance to compete with women for administrative jobs (1967).

Lemon conducted a study of attitudes toward women as school administrators among three groups: administrators, teachers, and board of education members in 1968. His findings corroborated those of Warwick, Krause and Barter: teachers have a positive attitude toward the employment of women as school administrators (1968).

Stockard interviewed 812 adults in a western state to identify factors associated with favorable attitudes toward women administrators. Urbanization and increased education were found to be associated with favorable attitudes as were age and knowing a woman in school administration (Stockard, 1979).

Shakeshaft examined studies that dealt with attitudes toward and opinions about women in school administration. Surveys of administrators, board members, and high school students show that these populations held attitudes that were more favorable to men than to women in school administration (Shakeshaft, 1979).

Taylor found in her study that when superintendents were asked if sex would be a determining factor in hiring an administrative candidate, they replied "yes" if hiring superintendents or secondary

school principals. They said it would not be a determining factor for supervisors, assistant principals, or elementary principals (Taylor, 1977).

An American Association of School Administrators survey was recently completed (1979) and the published review of the AASA study indicated that the Women as Managers Scale was the instrument used to interview 1,691 superintendents and 374 school board presidents or chairmen, both males and females (Executive Educator, 1981). The AASA survey found that superintendents and board presidents expressed positive attitudes toward women in education administration positions; however, many of them agreed with sex role and sex-characteristic stereotypes:

"Nearly 40 percent of the board presidents and 57 percent of the superintendents felt that women more than men view work as a social situation; over 35 percent of the superintendents and 49 percent of the board presidents thought that women enjoy routine work more than men do; and 40 percent of both groups thought men to be more effective than women in working with subordinates. Women in both groups were less likely than men to agree with stereotypic statements" (Adkinson, 1981).

Patricia Schmuck found that even positive assets of women were viewed negatively in interviews with administrators. They saw women's bent toward democracy resulting in indecisiveness; and women's attention to detail was at the expense of their being able to see the large picture. These administrators from rural, urban, and suburban Oregon school districts viewed women negatively relative to their administrative ability (1975).

Pottker and Fishel reviewed 22 attitudinal studies (most of which were doctoral dissertations) toward women in school administration and concluded "the results from these attitudinal studies indicate that there is prejudice shown by most male teachers, school superintendents, and school board members against women serving as principals" (1977, p. 295).

Shakeshaft says that the quality of much of the attitude data gathered on women administrators is questionable. She says, however, that were more rigorous, exact measurements taken, the results of the surveys, she believes, would be very similar (1979).

### Leadership Studies

Behavioral differences between males and females in school administration have been studied for over 20 years. Frasher and Frasher (1979) list some of the most important studies, the data sources, the sex differences that emerged, and the variable under analysis. Following are their summaries of the studies:

#### Sex Differences in Administration

<u>Study</u>	<u>Data Source</u>	<u>Difference</u> (Higher Scores)	<u>Variable</u>
H.G. Grobman and V.A. Hines, "What Makes A Good Principal?" <u>Bulletin of the National Association of Secondary School Principals</u> 40 (1956): 5-16	Principals' responses to <u>Principal Behavior Check List</u>	Women	Democratic practices Most effective administrative practices

Sex Differences in Administration (Continued)

Study	Data Source	Difference (Higher Scores)	Variable
N. Gross and R.E. Herriot, <u>Staff Leadership in Public Schools</u> (New York: Wiley, 1965).	Teacher's ratings	None	"Executive Professional Leadership"
N. Gross and A.E. Trask, <u>The Sex Factor and the Management of the Schools</u> (New York: Wiley, 1976).	Principals' responses to questionnaires and interviews	Women	Self-evaluation of instructional Supervision
		None	Self-evaluation of administrative abilities
		Women	Satisfaction derived from instructional supervision
		Men	Satisfaction derived from performing administrative tasks
	Teachers' ratings	Women	Professional performance of teachers
		Women	Pupils' academic performance
		None	Teacher morale
J.K. Hemphill, D.E. Griffiths, and N. Frederiksen, <u>Administrative Performance and Personality</u> (New York: Teachers College Press, 1962).	Principals' in-basket test responses	Women	"Exchanging Information"
		Women	"Maintaining Organizational Relationships"
		Women	"Responding to Outsiders"
		Men	"Analyzing the Situation"
		Men	"Complying with Suggestions Made by Others"

Sex Differences in Administration (Continued)

Study	Data Source	Difference (Higher Scores)	Variable
	Superiors' ratings	Women	Administrative performance
	Teachers' ratings	Women	Administrative performance
J. Hoyle, "Who Should be Principal: A Man or a Woman?" <u>National Elementary Principal</u> 48 (1969): 23-24.	Teachers' ratings	Women	"Problem-Recognition Behavior"
		Women	"Administrator-Evaluation Behavior"
		None	"Problem Analysis Behavior"
		None	"Group Participation Behavior"
		None	"Administrator Action Behavior"
C.A. Longstreth, "An Analysis of the Perceptions of the Leadership Behavior of Male and Female Secondary School Principals in Florida," <u>Dissertation Abstracts International</u> 34 (1973): 2224-25A.	Superordinates' ratings (LBDQ-XII)	None	All 12 leader behavior dimensions
	Subordinates' ratings (LBDQ-XII)	Women	"Representation"
		None	All other dimensions
E.J. Van Meir, "Leadership Behavior of Male and Female Elementary Principals," <u>Dissertation Abstracts International</u> 32 (1972): 3643.	Teachers' ratings (LBDQ - XII)	Women	"Composite Leader Behavior"
		Women	"Persuasiveness"
		Women	"Demand Reconciliation"
		Women	"Role Assumption"
		None	All other dimensions

Perhaps the most comprehensive study of the administrative behavior of elementary principals, was the "Determination of the Criteria of Success of School Administration Project" under the direction of Hemphill, Griffiths, and Frederiksen (1962). The project was jointly supported and funded by the Cooperative Research Project of the United States Office of Education, the W.K. Kellogg Foundation, Teachers College, Columbia University, the Educational Testing Service, and the University Council for Educational Administration.

A national sample of 232 principals participated in the project. A standard administrative situation was constructed in which administrative behavior could be elicited and observed. Important administrative tasks were simulated and condensed for a one-week period. The elementary principals were gathered by groups in twenty test centers throughout the country. In addition, each principal participating spent two days taking tests, and completing questionnaires.

The most important means used to simulate administrative tasks was the "in-basket" technique, with participants providing written responses to the in-basket problems for analysis. In addition, each principal visited the classrooms of his probationary teachers via kinescope recordings, prepared and presented a speech to his PTA, and participated in conferences, committee meetings and group discussions. This study made it possible to compare the administrative performance of 137 men and 95 women principals on a wide variety of factors.

Results indicated the aspects of administrative performance most characteristic of women are those of exchanging information, maintaining

organizational relationships, responding to superiors and outsiders, and displaying more democratic behavior. The administrative performance of men principals was characterized by following preestablished structures, making more conclusive decisions, taking a greater number of terminal actions, and being more undemocratic in their behavior.

On tests of mental ability, no extreme differences were found. Differences favored women slightly in the areas of verbal fluency and number facility, while men earned higher scores on tests of reasoning and visualization.

Scores obtained for each principal on the Leader Behavior Description Questionnaire, completed by all of the principal's teachers, were also statistically analyzed. Results showed a significant difference at the .01 level in favor of females on (1) initiating structure, with no significant difference for (2) consideration between the sexes on these two general leadership dimensions (Hemphill, Griffiths, & Frederiksen, 1962).

Fourteen factors of personality were tested resulting in four factors significantly in favor of the males; adventurous, and dominance, suspicion, and sophistication. Two factors significantly favored the female principal --emotionally sensitive and nonconventional. Eight factors of personality were found to be not significantly different; and these factors were friendly, emotional stability, enthusiastic, character strength, insecurity, self-sufficient, will control and nervous tension.

The female principals dominated the category of instructional awareness, scoring significantly higher mean scores on ten of the twelve



items tested, with the remaining two items not significant. An interesting finding of this study was that when performance was evaluated by superiors and by teachers, it was found that both groups were somewhat negative toward men principals and generally positive toward the women principals.

Hemphill, Griffiths, and Frederiksen in considering the question, "Should men be appointed as elementary school principals in preference to women?" concluded that the answer was "probably not". This study does not present evidence that a woman should be preferred over the man. It does indicate, however, that, as a class, men are not overwhelmingly superior to women as elementary school principals (Hemphill, Griffiths, & Frederiksen, 1962).

Another extensive and intensive research study into leadership behavior was the National Principalship Study by Gross and Herriott in 1965. As an on-going program of research in the sociology of education, the National Principalship Study was initiated at Harvard University in 1959. One aspect of the study selected for intensive analysis was the behavior of elementary school principals in their efforts to conform to a definition of their role that stressed their obligation to improve the quality of teacher performance.

Leadership behavior conduct according to this definition was called Executive Professional Leadership (EPL). This refers to the attempt of an executive (the principal) to influence the behavior of subordinates (teachers).

The 175 Elementary principals participating in this phase of the study were part of a national sample of all elementary and secondary

school principals in American cities of a population of 50,000 or more during the 1960-61 school year. To determine a principal's Executive Professional Leadership score, a sample of teachers in each school was asked to respond to a twelve-item questionnaire, on how frequently their principal engaged in a certain type or kind of behavior. The teachers' responses to these twelve questions were then summarized through the technique of Guttman scaling, and a single EPL score was obtained for each of the 175 principals (Gross, Herriott, 1965).

The study tested many hypotheses involving nineteen different variables, classified into four categories: formal academic training, career line, latent social position, and other variables. When "effectiveness" was measured by EPL scores, sex had no apparent relationship to the EPL score. The mean ELP scores of the eighty-nine males and eighty-six females participating in the study were reported as identical (Gross, Herriott, 1965).

A third major study involving only secondary principals was completed by Morsink (1970). She attempted to determine if, and to what extent, men and women secondary school principals behave differently as leaders. Using the Leader Behavior Descriptive Questionnaire -Form XII, Morsink surveyed 159 women secondary school teachers and 169 men secondary teachers on the behavior of 30 secondary principals made up of 15 females and 15 males. The teacher and principal populations represented large urban, small urban or suburban, and rural areas of Michigan. The men and women principals were matched as closely as possible regarding grade organization, pupil population, type and size of community, and faculty size.

Morsink reported that the perceptions of the secondary school principals by the men and women teachers as determined by the mean scores of the LBDQ, statistically favored women principals on eight of the twelve factors compared. The female secondary principals outscored the men secondary principals on representation, persuasiveness, initiation of structure, production emphasis, predictive accuracy, integration, and superior orientation; and on the factor of reconciliation. The male secondary principals surveyed in this study scored a significantly higher mean score on only one factor, that of tolerance of freedom. Comparison scores on three factors, tolerance of uncertainty, role assumption, and consideration were found to be non-significant for the men and women secondary principals in this study. Morsink concluded that, since on certain dimensions of leader behavior, men and women principals were not perceived by their subordinates to behave in a significantly different manner, there is no justification in the argument that men behave more appropriately than women as secondary school principals. She further concluded, based on the results of her study, that there were no valid reasons for not employing women in these posts.

Gross and Trask (1976) reanalyzed data from the National Principalship Study of 1961. They concluded that because women are more likely to be involved in instruction, to show more concern for students, and to interact more frequently and more democratically with teachers, that they should be the preferred sex for school principals. Frasher and Frasher endorse this argument by saying that women have historically been nurturant, patient, sympathetic, and accommodative;

and that these qualities are especially suited for effective school administration (1979).

Meskin, after surveying all the studies, stated:

"When we highlight some of the specific findings concerning women administrators in these studies - their propensity toward democratic leadership, thoroughness of approach to problem solving, and bent toward instructional leadership, as well as the general effectiveness of their performance as rated by both teachers and superiors - we puzzle over the small number of women administrators employed by school districts (1974)."

Burns stated that:

"Without additional research knowledge regarding the underlying causes for the decline in the assignment of women in leadership roles and active efforts to impede the decline presently in evidence, it is predicted that this situation will continue to prevail in public schools (1964)."

Current data suggests that the situation has continued to prevail and as yet no adequate explanation has been found for its continuance. It is to be hoped that this study can provide additional knowledge regarding the causes of this decline.

#### Summary

An attempt has been made through this review of related literature to show the attitudes toward women in management positions including school administration. The leadership studies of the 50's and 60's support the image of women as capable and competent leaders. Based on these studies and others (Barter, 1969; Van Meir, 1973; NEA, 1973; Smith, 1977), it would appear that both teachers and superiors consider women to be capable educational managers both on managerial performance and subjective evaluation.

## Chapter 3

### METHODOLOGY

#### Identification of the Problem

The sample for this research consisted of 252 individuals listed in the 1980-81 membership directory Who's Who in Educational Administration whose title was Superintendent. The study did not differentiate between county, district, regional, or area superintendents, since all would presumably be instrumental in the selection of school managers (principals).

One-half of the sample was comprised of 126 superintendents listed in the 1980-81 directory and identified by the researcher as female. The other half of the sample was comprised of 126 male superintendents selected through the systematic sampling procedure recommended by Hinkle (1979). The systematic sampling fraction for this study was  $\frac{1}{125}$  and the male superintendents include every 125th superintendent in the AASA directory starting with the 124th one listed.

When responses were received, 11 of the 126 superintendents identified as females were, in actuality, males having feminine-sounding names. Therefore, the total sample of 252 superintendents consisted of 115 females and 137 males.

Of the 252 superintendents selected from the directory, sixty-one (61) declined to participate, did not respond, were no longer the superintendent, or returned unusable questionnaires. Eighty-one

(81) female superintendents (70.4 percent) and 110 male superintendents (80.3 percent) returned the completed data used in this study, representing a combined response rate of 75.8 percent of the individuals initially contacted.

Of the usable responses, 10 said that they did not hire principals for some reason. In two cases, the superintendent was also the principal; in three cases, the superintendents said only they did not hire principals; and in four cases, the respondents said there were no principals in that district. The other respondent indicated that although she was currently a state superintendent of education, and did not administer local schools (as noted in the Limitations of the Study), she had been a county superintendent for seven years prior to her present position. It was decided to include the data from these 10 respondents since it was likely that they had in the past or would in the future be in a position wherein their attitude toward women as managers might determine whether or not women were hired as principals. The final sample for the study therefore consisted of 110 males and 81 females for a total of 191.

#### Procedure

The data were collected by mailed questionnaires. The first questionnaire was mailed June 24, 1981. The follow-up letter and another copy of the questionnaire were sent July 23, 1981. Sixty-five (65) percent of the superintendents responded to the initial questionnaire. The second mailing elicited an additional 10.79 percent.

## The Instrument

The instrument for this study was a two-part questionnaire. The main part was the Women as Managers Scale (WMAS) developed by Peters, Terborg, and Taynor. The second part of the questionnaire consisted of demographic variables identified from the literature as those which may impact upon attitudes of superintendents toward women in management positions.

The Women as Managers Scale (WAMS): A Measure of Attitudes Toward Women in Management Positions was developed at Purdue University by Laurence H. Peters, James H. Terborg, and Janet Taynor (1974). The authors suggest that it be used to define barriers which exist toward women in management; to assess attitudes which may help to account for the disproportional ratio of men and women managers in organizations; and to assess attitudes of employees relative to normative data.

The Women as Managers Scale (WAMS) measures three factors. Factor I determines the respondent's attitude toward the general acceptance of women as managers. Factor II determines the respondent's stereotypic attitude toward the biological-cultural role of women. Factor III determines the respondent's attitude toward women's possession of descriptive traits deemed desirable for effective management.

The original WAMS included a total of 55 items, written to include: (1) general descriptive traits/behaviors of managers (e.g., leadership) and (2) female-specific stereotypic traits/behaviors thought to represent barriers to the successful integration of women

into managerial positions (e.g., child-rearing responsibilities). All items were written following procedures for the construction of attitude scale items (Likert, 1932). Each item consisted of a declarative statement for which there were seven response alternatives ranging from "strongly agree" to "strongly disagree". The development sample consisted of 541 advanced undergraduate students from four colleges and universities located in the South and Midwest. In total, 345 males and 196 females responded voluntarily to the attitude questionnaire. Based on both item analysis and a principal components analysis, the initial pool of 55 items was reduced to a 21-item scale with three interpreted components. The split-half (odd-even) reliability of the 21-item scale was .91 (corrected for the length of the scale). The final questionnaire consisted of 11 items worded to favorably describe women as managers and 10 items worded unfavorably.

The original research on the WAMS yielded three interpretable factors which accounted for 48 percent of the response variance. Factor I, general acceptance of females as managers, as measured by items one through ten, accounted for 20.1 percent of the response variance. Persons scoring low on this factor were described by the authors as perceiving women as less capable than men in terms of behaving responsibly, objectively, and competitively. Low scorers were thought to hold attitudes that indicate women are not capable of learning managerial skills and accordingly should be given low preference for participating in such activities as management training programs.



Factor II, feminine barriers, as measured by items eleven through fifteen, accounted for 12.5 percent of the response variance. Persons scoring low on this factor were described as believing that problems associated with the female biological role prevent women from being effective employees in general. A person who scores low on Factor II is thought to hold biological-cultural stereotypes specific to women and which are applicable to women workers in general. These items tend to describe a woman as being unfit to aspire to managerial positions because she is a woman.

Factor III, manager descriptive traits, as measured by items sixteen through twenty-one, accounted for 15.1 percent of the response variance. Persons scoring low on this factor were described as seeing females as lacking the ambition, assertiveness, aggressiveness, and competitiveness thought to be required of successful managers (Peters, Terborg, and Taynor, 1974).

Each attitude response alternative on the Women as Managers Scale was scored from one to seven with one indicating strongly disagree, two - disagree, three - slightly disagree, four - neither disagree nor agree, five - slightly agree, six - agree, and seven - strongly agree. For tabulation purposes the scores were inverted for questions 1, 3, 6, 7, 15, 16, 17, 18, 20, and 21, which were stated in a reverse or unfavorable direction. The range of possible scores for the total test was 21 to 147, with a high score indicating a favorable or liberal attitude and a low score indicating an unfavorable or traditional attitude toward women in management.

Demographic Variables

The following demographic variables were included in this study because previous research has shown that they may impact upon attitudes toward women in management positions:

1. Size of school district
  - a. under 5,000 students \_\_\_\_\_
  - b. between 5,000 and 20,000 students \_\_\_\_\_
  - c. more than 20,000 students \_\_\_\_\_
2. Population composition of school district
  - a. largely urban \_\_\_\_\_
  - b. largely suburban \_\_\_\_\_
  - c. largely rural \_\_\_\_\_
3. Length of time served as a superintendent
  - a. from 1 year to 4 years \_\_\_\_\_
  - b. from 5 years to 10 years \_\_\_\_\_
  - c. more than 10 years \_\_\_\_\_
4. Age of the superintendent
  - a. between 30 and 40 years of age \_\_\_\_\_
  - b. between 40 and 49 years of age \_\_\_\_\_
  - c. 50 years of age or over \_\_\_\_\_
5. Level of educational attainment of the superintendent
  - a. College Degree \_\_\_\_\_
  - b. Masters Degree \_\_\_\_\_
  - c. 6th Year Degree or CAGS \_\_\_\_\_
  - d. Doctorate \_\_\_\_\_
6. Superintendent's attitude toward women's rights
  - a. conservative \_\_\_\_\_
  - b. undecided \_\_\_\_\_
  - c. liberal \_\_\_\_\_

School district size and location have been shown to be significant factors with more favorable attitudes toward women in

school administration in large, urban school districts (Byrnes, Hines, and McCleary, 1978; Goss, 1978). Schein found that age was a significant factor with Males 49 or over perceiving women as more capable managers than younger males (1973). Educational attainment appears to be significantly related, with the higher the educational attainment, the more liberal or favorable the attitude toward women as managers (Terborg, et al, 1975).

Saunders found that the female school superintendents surveyed in her study had fewer years of experience as superintendents than did the male superintendents (1976). Estler found that this was also the case in her survey of managers in business (1975).

Men and women who rate themselves as liberal toward women's rights have a more positive view toward women as managers than do those who rate themselves as conservative (Terborg, 1977).

### Analysis of the Data

Two-way analysis of variance was used in this study because it was an efficient method of investigating a study design with two independent variables. Since this study was investigating two independent variables (i.e., (a) sex of the superintendent and (b) demographic factors) simultaneously, two-way ANOVA tested whether the levels of one independent variable (sex) affected the dependent variable (attitude score) in the same way across the levels of the second independent variable (demographic factor). This statistical procedure allowed the researcher control over more than one independent

variable and disclosed any interaction which may have existed between the two equally important independent variables under investigation (Hinkle, 1979).

Shakeshaft (1979) noted that much of the attitude toward women research was weak because of the failure to examine the interaction of the independent variables being investigated. This was an additional reason for using the two-way ANOVA statistical analysis.

Tukey multiple-comparison procedures were carried out to investigate significant findings. The Statistical Package for the Social Sciences (1975) was the computer program used for this study, and Option 10 of the Statistical Package for the Social Sciences was used because of the unequal cell sizes of the study design. The alpha level established to determine statistically significant differences between means was set at .05.

## Chapter 4

### ANALYSIS OF DATA

The purpose of the study was to determine if superintendents of public schools view women as capable managers and to determine if male superintendents perceive the managerial capabilities of women differently than do female superintendents. The study attempted to measure whether any of the three factors: Factor I, general acceptance of females as managers; Factor II, feminine barriers; or Factor III, manager descriptive traits, as measured by the Women as Managers Scale, presented a barrier to women in educational management. The second purpose was to determine the relationship between attitudes and selected demographic variables within the study.

The Women as Managers Scale was used to determine if women were viewed favorably or unfavorably as effective school managers by male and female superintendents and to determine if there was a significant difference between these two groups when compared on the means of Factor I, general acceptance of females as managers; the means of Factor II, feminine barriers; and the means of Factor III, manager descriptive traits. The data were also analyzed to determine if there were significant differences among the research sample when compared by specific demographic variables. The following hypotheses were tested:

Hypothesis 1 - There will be no difference between the mean score of the male superintendents and the mean score of the female superintendents on each of the three subscales of the Women as Managers Scale.

Hypothesis 2 - There will be no difference in the mean scores of the superintendents on the additional levels of the demographic variables on each of the three subscales of the Women as Managers Scale when broken down by the various levels of the other demographic variables:

- a. size of school district,
- b. population composition of school district,
- c. length of time as superintendent,
- d. age of the superintendent,
- e. educational attainment of the superintendent,
- f. superintendent's attitude toward women's rights.

Hypothesis 3 - There will be no interaction effects between the sex of the respondent and each of the demographic variables of this study for the three subscales of the Woman as Managers Scale.

#### Characteristics of the Study Population

When the total sample of 191 public school superintendents was divided into male and female subjects within the subgroups of the demographic variables of this study, the following data emerged.

(See Tables 4.I, 4.II, 4.III, and 4.IV.)

#### Size of the School District

1. The data shows that the majority of superintendents (125 or 65.4 percent) in this study are administrators of school districts with fewer than 5,000 students.
2. Those who said their district contained between 5,000 and 20,000 students were 39 or 20.4 percent of the total.
3. Only 27 or 14.1 percent indicated that they administered a district

TABLE 4.1

THE NUMBER AND PERCENT OF SUPERINTENDENTS BY SEX  
FOR EACH OF THE DEMOGRAPHIC VARIABLES

	Male		Female		Total	
	N	%	N	%	N	%
Size of school districts						
0-5,000	72	65.5	53	65.4	125	65.4
5,000-20,000	24	21.8	15	18.5	39	20.4
over 20,000	14	12.7	13	16.05	27	14.1
Population composition						
urban	17	15.4	12	14.8	29	15.2
suburban	35	31.8	30	37.0	65	34.0
rural	58	52.7	39	48.1	97	50.8
Length of service time						
1-4 years	21	19.0	45	55.6	66	34.6
5-10 years	28	25.5	22	27.1	50	26.2
over 10 years	61	55.5	14	17.3	75	39.2
Age of superintendent						
30-40 years	13	11.8	12	14.8	25	13.1
40-49 years	32	29.1	29	35.8	61	31.9
over 50	65	59.1	40	49.4	105	54.9
Educational attainment						
MA	21	19.1	31	38.3	52	27.2
CAGS	29	26.4	13	16.0	42	22.0
Doctorate	60	54.5	37	45.7	97	50.8
Attitude toward women's rights						
conservative	28	25.5	23	28.4	51	26.7
undecided	25	22.7	14	17.3	39	20.4
liberal	57	51.8	44	54.3	101	52.9

TABLE 4.11

RANGE AND MEAN SCORES FOR MALE AND FEMALE SUPERINTENDENTS  
ON FACTOR I, FACTOR II, AND FACTOR III

Factor I - general acceptance of females as managers  
Factor II - feminine barriers  
Factor III - manager descriptive traits

Range of scores on WAMS

	Males		Females		Total	
	<u>N</u>	<u>Range</u>	<u>N</u>	<u>Range</u>	<u>N</u>	<u>Range</u>
Factor I	110	10 - 70	81	18 - 70	191	10 - 70
Factor II	110	5 - 35	81	5 - 35	191	5 - 35
Factor III	110	6 - 42	81	11 - 42	191	6 - 42
Total <u>WAMS</u>	110	21 - 147	81	37 - 147	191	21 - 147

Number of cases and mean scores on WAMS

	Males		Females		Total		<u>Maximum</u>
	<u>N</u>	<u>X</u>	<u>N</u>	<u>X</u>	<u>N</u>	<u>X</u>	
Factor I	110	59.70	81	65.31	191	62.08	70
Factor II	110	24.04	81	29.74	191	26.46	35
Factor III	110	34.00	81	37.93	191	35.66	42
Total <u>WAMS</u>	110	117.74	81	132.98	191	124.18	<u>147</u>



TABLE 4.III

NUMBER OF MEAN SCORES BY SEX FOR THE LEVELS OF THE DEMOGRAPHIC  
VARIABLES FOR EACH OF THE THREE FACTORS OF THE WAMS

	Male		Female		Total	
	N	Mean	N	Mean	N	Mean
FACTOR I						
Size of school districts						
0-5,000	72	59.61	53	65.23	125	61.99
5,000-20,000	24	61.83	15	64.07	39	62.69
over 20,000	14	56.50	13	67.08	27	61.59
Population composition						
urban	17	58.29	12	65.75	29	61.38
suburban	35	61.29	30	66.40	65	63.65
rural	58	59.16	39	64.33	97	61.24
Length of service time						
1-4 years	21	60.19	45	66.29	66	64.35
5-10 years	28	62.96	22	65.41	50	64.04
over 10 years	61	58.03	14	62.00	75	58.77
Age of superintendent						
30-40 years	13	60.31	12	66.25	25	63.16
40-49 years	32	60.19	29	65.90	61	62.90
over 50	65	59.34	40	64.60	105	61.34
Educational attainment						
MA	21	55.81	31	64.26	52	60.85
CAGS	29	58.45	13	63.38	42	59.98
Doctorate	60	61.67	37	66.86	97	63.65
Attitude toward women's rights						
conservative	28	56.79	23	61.09	51	58.73
undecided	25	59.12	14	67.36	39	62.08
liberal	57	61.39	44	66.86	101	63.77

TABLE 4.III (Continued)

	Male		Female		Total	
	N	Mean	N	Mean	N	Mean
FACTOR II						
Size of school districts						
0-5,000	72	23.43	53	29.51	125	26.01
5,000-20,000	24	26.38	15	29.47	39	27.56
over 20,000	14	23.14	13	31.00	27	26.93
Population composition						
urban	17	23.94	12	35.25	29	27.38
suburban	35	25.69	30	30.03	65	27.69
rural	58	23.07	39	28.74	97	25.35
Length of service time						
1-4 years	21	24.48	45	30.89	66	28.85
5-10 years	28	23.54	22	30.05	50	26.40
over 10 years	61	24.11	14	25.57	75	24.39
Age of superintendent						
30-40 years	13	22.08	12	30.25	25	26.00
40-49 years	32	23.44	29	30.38	61	26.74
over 50	65	24.72	40	29.13	105	26.40
Educational attainment						
MA	21	21.81	31	29.35	52	26.31
CAGS	29	23.59	13	27.77	42	24.88
Doctorate	60	25.03	37	30.76	97	27.22
Attitude toward women's rights						
conservative	28	21.25	23	27.96	51	24.27
undecided	25	23.88	14	30.29	39	26.18
liberal	57	25.47	44	30.50	101	27.66

TABLE 4.III (Continued)

	Male		Female		Total	
	N	Mean	N	Mean	N	Mean
FACTOR III						
Size of school districts						
0-5,000	72	33.88	53	37.51	125	35.42
5,000-20,000	24	34.96	15	37.80	39	36.05
over 20,000	14	33.00	13	39.77	27	36.26
Population composition						
urban	17	32.82	12	39.58	29	35.62
suburban	35	34.94	30	37.60	65	36.17
rural	58	33.78	39	37.67	97	35.34
Length of service time						
1-4 years	21	34.24	45	38.44	66	37.11
5-10 years	28	34.32	22	38.27	50	36.06
over 10 years	61	33.77	14	35.71	75	34.13
Age of superintendent						
30-40 years	13	32.77	12	38.58	25	35.56
40-49 years	32	33.34	29	38.41	61	35.75
over 50	65	34.57	40	37.38	105	35.64
Educational attainment						
MA	21	31.10	31	37.65	52	35.00
CAGS	29	34.59	13	37.46	42	35.48
Doctorate	60	34.73	37	38.32	97	36.10
Attitude toward women's rights						
conservative	28	32.57	23	35.83	51	34.04
undecided	25	34.00	14	39.57	39	36.00
liberal	57	34.70	44	38.50	101	36.36

TABLE 4.IV  
 MEAN SCORES FOR EACH LEVEL OF THE DEMOGRAPHIC VARIABLES FOR  
 FACTOR I, FACTOR II, FACTOR III, AND TOTAL WAMS  
 SCORES FOR ALL RESPONDENTS

	FACTOR I		FACTOR II		FACTOR III		TOTAL <u>WAMS</u>	
	N	Mean	N	Mean	N	Mean	N	X
Size of school districts								
0-5,000	125	61.99	125	26.01	125	35.42	125	123.37
5,000-20,000	39	62.69	39	27.56	39	36.05	39	126.31
over 20,000	27	61.59	27	26.93	27	36.26	27	124.89
Population composition								
urban	29	61.38	29	27.38	29	35.62	29	124.38
suburban	65	63.65	65	27.69	65	36.17	65	127.55
rural	97	61.24	97	25.35	97	35.34	97	121.87
Length of service time								
1-4 years	66	64.35	66	28.85	66	37.11	66	130.30
5-10 years	50	64.04	50	26.40	50	36.06	50	126.38
over 10 years	75	58.77	75	24.39	75	34.13	75	117.33
Age of superintendent								
30-40 years	25	63.16	25	26.00	25	35.56	25	124.72
40-49 years	61	62.90	61	26.74	61	35.75	61	125.34
over 50	105	61.34	105	26.40	105	35.64	105	123.38
Educational attainment								
MA	52	60.85	52	26.31	52	35.00	52	122.10
CAGS	42	59.98	42	24.88	42	35.48	42	120.33
Doctorate	97	63.65	97	27.22	97	36.10	97	126.97
Attitude toward women's rights								
conservative	51	58.73	51	24.27	51	34.04	51	116.92
undecided	39	62.08	39	26.18	39	36.00	39	124.26
liberal	101	63.77	101	27.66	101	36.36	101	127.82

with more than 20,000 students. This 14.1 percent included 14 males and 13 females.

4. The ratio of males to females was not disproportional except there were more males (24) than females (15) in the 5,000 - 20,000 school districts.

#### Population Composition of the School District

1. The number of respondents who indicated that their school district was urban was 29 or 15.2 percent of those surveyed.
2. The suburban group numbered 65 and represented 34.0 percent of the respondents with an almost equal representation of men and women.
3. The largest group were those who identified their school district as rural. They numbered 97 and represented 50.8 percent of the 191 respondents.

#### Years of Experience as a Superintendent

1. Sixty-six superintendents with 1-4 years of experience as a school superintendent were 34.6 percent of the total group with females outnumbering males 45 to 21.
2. The superintendents who had from 5-10 years experience numbered 50 and represented 26.2 percent of the total with the ratio of men to women fairly even.

3. More than a third of the respondents had served as a superintendent for more than 10 years. This latter group numbered 75 and comprised 39.2 percent of the total. The sexes were disproportionate, however, since there were 61 males and 14 females.

#### Age of the Superintendent

1. The superintendents who were between 30-40 years of age comprised only a relatively small proportion of the respondents of the study. The 25 superintendents in this age category (13.1 percent) consisted of 13 men and 12 women.
2. The age group of between 40-49 years numbered 61 and constituted 31.9 percent with the number of men (32) and women (29) being fairly even considering the ratio of men to women who responded to the study.
3. The largest group of respondents were those in the over 50 years of age category. They numbered 105 and represented 54.9 percent of the total 191 respondents. There were 65 men and 40 women in the over 50 years of age category.

#### Educational Attainment of the Superintendent

1. The superintendents who held Master's Degree numbered 52 and were 27.2 percent of the total group. There were 21 males and 31 females in this category.

2. The Sixth Year Degree of Certificate of Advanced Graduate Studies holders numbered 42 but the ratio of men to women was disproportionate with only 13 women compared to 29 men. These 42 represented 22 percent of the superintendents responding to the study.
3. The data shows that 37 (45.7 percent) of the female superintendents and 60 (54.5 percent) of the male superintendents held the Doctorate Degree for a total of 97 (or 50.8 percent of the respondents). The number of women to men with the Doctorate was fairly proportional considering that women comprised 42.4 percent of the superintendents who supplied the data for the study.\*

#### Superintendent's Attitude Toward Women's Rights

1. Twenty-eight men and twenty-three women rated themselves as conservative toward women's rights. They numbered 51 and constituted 26.7 percent of the total responses.
2. The undecideds numbered 39 and consisted of 25 men and 14 women. They were 20.4 percent of the total superintendents responding.
3. A slight majority of the responses in this study (52.9 percent) indicated that these superintendents considered themselves as liberal toward women's rights. There were a total of 101 liberals consisting of 57 men and 44 women.

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\*Four female BA Degree holders' responses were collapsed into the female Master's Degree category because the too few cells or singular matrix caused the higher order interactions in the computer analysis to be compressed.

### Principals in District

The superintendents surveyed in this study reported that they had a total of 550 female principals and 1,735 male principals. When asked if they had hired female principals within the last five years, 40.5 percent of the female superintendents and 52.3 percent of the male superintendents responded affirmatively.

### Statistical Analysis

Two-way analysis of variance was used in this study as an efficient way of investigating the levels of two equally important independent variables (i.e., sex of the superintendent and demographic factors) at the same time. Also, two-way ANOVA enabled the researcher to investigate whether the dependent variables (attitude scores in this study) are affected by interaction effects between the two independent variables being investigated. Tukey multiple comparison procedures were carried out to make all the possible pair-wise comparisons between the group means of the levels of the demographic variables of this study to determine which group means were significantly different and to maintain the Type I error rate at the .05 alpha level.

### Findings of the Study

Hypothesis 1 - There will be no difference between the mean score of the male superintendents and the mean score of the female superintendents on each of the three subscales of the Women as Managers Scale.

The most consistently significant finding of this study was the sex effect on the attitude scores. The female superintendents' scores



were consistently and significantly higher than the male superintendents' scores for each of the 18 two-way analysis of variance statistical tests of this study. This difference was significant at the 0.00 level in all analyses except on one demographic variable (superintendent's length of service) where significance was 0.002 (Factor I) and 0.001 (Factor III). On that variable women with more than 10 years experience as a superintendent had scores somewhat close to the male scores on Factor I and Factor III of the Women as Managers Scale. This was the only instance that the scores of the males and females showed reduced discrepancy. Therefore, the first hypothesis was rejected. (See Tables 4.V., 4.VI, 4.VIII, 4.X, 4.XI, and 4.XIII.)

Hypothesis 2 - There will be no difference in the mean scores of the superintendents on the additional levels of the demographic variables on each of the three subscales of the Women as Managers Scale when broken down by the various levels of the other demographic variables:

- a. size of school district,
- b. population composition of school district,
- c. length of time as superintendent,
- d. age of the superintendent,
- e. educational attainment of the superintendent,
- f. attitude of superintendents toward women's rights.

Two-way ANOVA tests were computed on each of the three subscales or factors of the Women as Managers Scale by each of the six demographic variables of this study. Option 10 of the Statistical Package for the Social Sciences computer program was used, which is a regression approach for two-way ANOVA with unequal cell sizes. Each variable and the conclusion reached are as follows:

### Demographic Variable 1

Size of school district. The data indicated that there were no statistically significant differences in the mean scores of the respondents relative to the size of school district (see Table VI). The superintendents of school district sizes of 1-5,000 students, 5,000-20,000 students, and over 20,000 students did not differ significantly on Factor I, on Factor II, or on Factor III of the Women as Managers Scale. This result is contrary to the research of Goss (1978) whose doctoral dissertation found that the size of the school district had a significant effect on the respondents' attitude toward women. For this variable, Hypothesis 2 is retained.

### Demographic Variable 2

Population composition of the school district. The responses of the superintendents did not differ significantly relative to the population composition of the school district on Factor I and Factor III of the variable and Hypothesis 2 was retained for these two factors. However, Factor II data showed statistical significance. When the Tukey procedure was carried out, none of the pair-wise comparisons were statistically significant. Rather, a more complex contrast existed which was not investigated in this study. The F test in the two-way ANOVA is a comprehensive overall comparison of all differences in the variables under investigation while the Tukey procedure is a more conservative post hoc analysis of means compared two at a time relative to all possible contrasts being investigated.

TABLE 4.V

TWO-WAY ANOVA - SEX AND SCHOOL DISTRICT SIZE FOR FACTOR I,  
 FACTOR II, AND FACTOR III OF THE  
WOMEN AND MANAGERS SCALE

## FACTOR I

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
School District Size	22.004	2	11.002	0.148	0.862
Sex	1491.320	1	1491.320	20.084	<0.001
2-Way Interactions	271.414	2	135.707	1.828	0.164
Residual	13736.816	185	74.253		
Total	15521.555	190	81.692		

## FACTOR II

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
School District Size	78.938	2	39.469	1.134	0.324
Sex	1534.002	1	1534.002	44.068	<0.001
2-Way Interactions	98.461	2	49.230	1.414	0.246
Residual	6439.809	185	34.810		
Total	6151.211	190	42.901		

## FACTOR III

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
School District Size	23.104	2	11.552	0.318	0.728
Sex	718.725	1	718.725	19.784	<0.001
2-Way Interactions	67.939	2	33.970	0.935	0.394
Residual	6720.652	185	36.328		
Total	7330.422	190	39.634		

However, Hypothesis 2 for Factor II of this variable was rejected because the two-way ANOVA showed the population composition of the school district Factor II scores to be statistically different at the 0.031 level. (See Tables VII and VIII.)

### Demographic Variable 3

Length of time respondent has served as a superintendent. On Factor I, general acceptance of females as managers, the data indicated that the length of time the superintendent had served had an effect on the attitude scores. There was a significant difference among the levels of this variable. When the Tukey procedure was carried out along the three levels of the variable, it was found that superintendents with more than 10 years experience had a statistically significant lower mean score than the superintendents with 10 or fewer years experience.

On Factor II of the Women as Managers Scale, feminine barriers, again there was a significant difference among the mean scores. The analysis of the Tukey procedure data revealed that both the superintendents with more than 10 years of experience and those with 5-10 years of experience differed significantly from those with 1-4 years of experience as superintendents.

On Factor III, general acceptance of women as managers, the mean scores relative to the length of time the respondent had served as superintendent were also significantly different among the three levels of the variable. The superintendents with more than 10 years of

TABLE 4.VI

TWO-WAY ANOVA - POPULATION COMPOSITION OF THE SCHOOL DISTRICT AND SEX  
OF THE SUPERINTENDENT FOR FACTOR I, FACTOR II, AND FACTOR III  
ON THE WOMEN AS MANAGERS SCALE

## FACTOR I

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
Population Composition	242.586	2	121.293	1.621	0.200
Sex	1407.114	1	1407.114	18.809	<0.001
2-Way Interactions	31.729	2	15.865	0.212	0.809
Residual	13840.125	185	74.811		
Total	15521.555	190	81.692		

## FACTOR II

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
Population Composition	242.616	2	121.308	3.525	<0.031
Sex	1464.818	1	1464.818	42.564	<0.001
2-Way Interactions	77.077	2	38.538	1.120	0.329
Residual	6366.699	185	34.415		
Total	8151.211	190	42.901		

## FACTOR III

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
Population Composition	26.816	2	13.408	0.369	0.692
Sex	706.208	1	706.208	19.451	<0.001
2-Way Interactions	82.486	2	41.243	1.136	0.323
Residual	6715.090	185	36.298		
Total	7530.422	190	39.634		

TABLE 4.VII

TUKEY MULTIPLE COMPARISON PROCEDURE TO INVESTIGATE SIGNIFICANT  
DIFFERENCES FOUND IN TWO-WAY ANOVA

DEMOGRAPHIC VARIABLE - Population Composition of the School District

FACTOR II

	<u>N</u>	<u>Mean</u>	<u>2-Way MSw</u>
Group A (rural)	97	25.35	34.415
Group B (urban)	29	27.38	34.415
Group C (suburban)	65	27.69	34.415

	<u>Observed Value</u>	<u>Critical Q (cv)</u>
Group A - Group B	2.46	3.31
Group A - Group C	2.84	3.31
Group B - Group C	.37	3.31

experience had mean scores significantly different from the 1 to 4 year group. Hypothesis 2 is rejected for Factor I, Factor II, and for Factor III on the variable of length of time the respondent has served as a superintendent. (See Tables V and IX.)

#### Demographic Variable 4

Age of the superintendent. The data analysis for the variable of the age of the superintendent indicated that this variable had no statistically significant effect on the superintendents' attitude toward women as managers as measured by the Women as Managers Scale, since the difference among levels of age was not significant on any of the three factors; therefore, Hypothesis 2 for this variable was retained. (See Table X.)

#### Demographic Variable 5

Level of educational attainment of the superintendent. On Factor I of the Women as Managers Scale, the educational attainment of the respondent appeared to have a significant effect on the attitude scores of the subjects toward women as managers. When computed, the Tukey procedure indicated that the significant differences found on the two-way ANOVA failed to show which group mean scores were statistically different. Again, more complex contrasts existed which did not emerge under this conservative post hoc Tukey analysis.

The means on page 71 show that those superintendents with a Doctorate have the highest mean score indicating the most favorable

TABLE 4.VIII

TWO-WAY ANOVA - SEX AND LENGTH OF TIME THE SUPERINTENDENT  
HAS SERVED FOR FACTORS I, II, AND III OF THE  
WOMEN AS MANAGERS SCALE

## FACTOR I

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
Length of Time	1351.770	2	675.885	9.342	<0.001
Sex	695.401	1	695.401	9.612	0.002
2-Way Interactions	89.951	2	44.976	0.622	0.538
Residual	13384.43	185	72.348		
Total	15521.555	190	81.692		

## FACTOR II

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
Length of Time	699.100	2	349.550	10.237	<0.001
Sex	935.489	1	935.489	27.396	<0.001
2-Way Interactions	199.557	2	99.778	2.922	0.056
Residual	6317.063	185	34.146		
Total	8151.211	190	42.901		

## FACTOR III

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
Length of Time	320.811	2	160.405	4.415	0.013
Sex	451.590	1	451.590	12.431	<0.001
2-Way Interactions	37.119	2	18.559	0.511	0.601
Residual	6720.902	185	36.329		
Total	7530.422	190	39.634		



TABLE 4. IX

TUKEY MULTIPLE COMPARISON PROCEDURE TO INVESTIGATE SIGNIFICANT DIFFERENCES FOUND IN TWO-WAY ANOVA

DEMOGRAPHIC VARIABLE - Length of Superintendent's Service Time

FACTOR I

	<u>N</u>	<u>Mean</u>	<u>2-Way MSw</u>
Group A (over 10 years)	66	58.77	72.348
Group B (5-10 years)	50	64.04	72.348
Group C (1-4 years)	75	64.35	72.348
	<u>Observed Value</u>	<u>Critical Q (cv)</u>	
Group A - Group B	4.90*	3.31	
Group A - Group C	5.19*	3.31	
Group B - Group C	.288	3.31	

FACTOR II

	<u>N</u>	<u>Mean</u>	<u>2-Way MSw</u>
Group A (over 10 years)	66	24.39	34.146
Group B (5-10 years)	50	26.40	34.146
Group C (1-4 years)	75	28.85	34.146
	<u>Observed Value</u>	<u>Critical Q (cv)</u>	
Group A - Group B	2.71	3.31	
Group A - Group C	6.03*	3.31	
Group B - Group C	3.315*	3.31	

FACTOR III

	<u>N</u>	<u>Mean</u>	<u>2-Way MSw</u>
Group A (over 10 years)	66	34.13	36.329
Group B (5-10 years)	50	36.06	36.329
Group C (1-4 years)	75	37.11	36.329
	<u>Observed Value</u>	<u>Critical Q (cv)</u>	
Group A - Group B	2.53	3.31	
Group A - Group C	3.91*	3.31	
Group B - Group C	1.37	3.31	

\*Observed value exceeds the Tukey critical value indicating significant difference between the two groups.

TABLE 4.X

TWO-WAY ANOVA - SEX AND AGE OF THE SUPERINTENDENT FOR FACTOR I,  
 FACTOR II, AND FACTOR III ON THE WOMEN AS MANAGERS SCALE

## FACTOR I

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
Age	127.395	2	63.697	0.842	0.432
Sex	1398.396	1	1398.396	18.489	<0.001
2-Way Interactions	3.294	2	1.647	0.022	0.978
Residual	13992.469	185	75.635		
Total	15521.555	190	81.692		

## FACTOR II

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
Age	10.368	2	5.184	0.147	0.863
Sex	1526.491	1	1526.491	43.372	<0.001
2-Way Interactions	103.246	2	51.623	1.467	0.233
Residual	6511.105	185	35.195		
Total	8151.211	190	42.901		

## FACTOR III

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
Age	0.836	2	0.418	0.011	0.989
Sex	723.742	1	723.742	19.887	<0.001
2-Way Interactions	73.186	2	36.593	1.005	0.368
Residual	6732.656	185	36.393		
Total	7530.422	190	39.634		

attitude toward women as managers on the acceptance of women in management positions. The second highest mean was that of the MA group and the lowest means was the CAGS group. There was not a consistent pattern here of high attitude scores being correlated with favorable attitudes toward women as managers as was found in Terborg's study (1977), but this study did find that the most highly educated respondents had the highest mean score indicating the most favorable attitude.

Hypothesis 2 for Factor I was rejected as the F test of the two-way ANOVA showed statistical difference at the 0.03 level, (see Tables XI and XII), but Hypothesis 2 for Factor II and for Factor III of the educational attainment variable was retained.

#### Demographic Variable 6

Superintendent's attitude toward women's rights. On Factor I of the Women as Managers Scale there was a statistically significant difference among the levels of liberal, undecided, and conservative on the variable of the superintendent's attitude toward women's rights. The Tukey procedure revealed that the total group of superintendents who rate themselves as liberal had a significantly more favorable attitude toward women as managers than the conservative group.

Factor II analysis revealed that the attitude of superintendents toward women's rights along the three levels of the variable different significantly. As in Factor I, respondents who rated themselves as liberal were significantly different from the conservative group having higher mean scores for Factor II.

TABLE 4.XI

TWO-WAY ANOVA - SEX AND EDUCATIONAL ATTAINMENT OF THE SUPERINTENDENT  
FOR FACTOR I, FACTOR II, AND FACTOR III ON THE  
WOMEN AS MANAGERS SCALE

## FACTOR I

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
Educational Attainment	503.944	2	251.997	3.509	<0.032
Sex	1630.992	1	1630.992	22.709	<0.001
2-Way Interactions	99.755	2	49.877	0.694	0.501
Residual	13286.813	185	71.821		
Total	15521.555	190	81.692		

## FACTOR II

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
Educational Attainment	161.436	2	80.718	2.344	0.099
Sex	1558.478	1	1558.478	45.260	<0.001
2-Way Interactions	61.036	2	30.518	0.886	0.414
Residual	6370.258	185	34.434		
Total	8151.211	190	42.901		

## FACTOR III

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
Educational Attainment	43.110	2	21.555	0.606	0.547
Sex	813.350	1	813.350	22.865	<0.001
2-Way Interactions	93.082	2	46.541	1.308	0.273
Residual	6580.879	185	35.572		
Total	7530.422	190	39.634		

TABLE 4. XII

TUKEY MULTIPLE COMPARISON PROCEDURE TO INVESTIGATE SIGNIFICANT  
DIFFERENCES FOUND IN TWO-WAY ANOVA

DEMOGRAPHIC VARIABLE - Educational Attainment of the Superintendent

FACTOR I

	<u>N</u>	<u>Mean</u>	<u>2-Way MSw</u>
Group A (CAGS)	42	59.98	71.821
Group B (MA)	52	60.85	71.821
Group C (Doctorate)	97	63.65	71.821

	<u>Observed Value</u>	<u>Critical Q (cv)</u>
Group A - Group B	.869	3.31
Group A - Group C	3.28	3.31
Group B - Group C	2.51	3.31

The ANOVA analysis for Factor III did not reveal a significant difference among the levels of the variable of the superintendent's attitude toward women's rights. Hypothesis 2 was rejected for Factor I and for Factor II. Hypothesis 2 was retained for Factor III. (See Tables XIII and XIV.)

Hypothesis 3 - There will be no interaction effects between the sex of the respondent and each of the demographic variables of this study for the three subscales of the Women as Managers Scale.

No interaction effects were found between the sex of the respondent and each of the variables of this study for each of the three subscales of the Women as Managers Scale. Therefore, Hypothesis 3 was retained.

### Summary

In summary the statistical analysis of the data obtained from this research revealed the following:

1. Hypothesis 1 was rejected. The attitude scores of the female superintendents were higher or more favorable toward women as managers on all three factors of the Women as Managers Scale than were those of the male superintendents. This finding held throughout the study on all of the 18 two-way ANOVA tests used to determine significant differences by sex.
2. Hypothesis 2 was retained for the most part but rejected in some instances:

TABLE 4.XIII

TWO-WAY ANOVA - SUPERINTENDENT'S ATTITUDE TOWARD WOMEN'S RIGHTS  
FOR FACTOR I, FACTOR II, AND FACTOR III  
ON THE WOMEN AS MANAGERS SCALE

## FACTOR I

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
Attitude Toward					
Women's Rights	863.133	2	431.567	6.108	0.003
Sex	1503.904	1	1503.904	21.286	<0.001
2-Way Interactions	83.698	2	41.849	0.592	0.554
Residual	13070.816	185	70.653		
Total	15521.555	190	81.692		

## FACTOR II

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
Attitude Toward					
Women's Rights	392.917	2	196.458	5.867	0.003
Sex	1535.124	1	1535.124	45.845	<0.001
2-Way Interactions	28.417	2	14.208	0.424	0.655
Residual	6194.754	185	33.485		
Total	8151.211	190	42.901		

## FACTOR III

Source of Variation	Sum of Squares	df	Mean Square	F	Significance of F
Attitude Toward					
Women's Rights	187.465	2	93.733	2.638	0.074
Sex	740.385	1	740.385	20.840	<0.001
2-Way Interactions	30.185	2	15.092	0.425	0.655
Residual	6772.387	185	35.526		
Total	7530.422	190	39.634		

TABLE 4.XIV

TUKEY MULTIPLE COMPARISON PROCEDURE TO INVESTIGATE SIGNIFICANT DIFFERENCES FOUND IN TWO-WAY ANOVA

DEMOGRAPHIC VARIABLE - Attitude Toward Women's Rights

FACTOR I

	<u>N</u>	<u>Mean</u>	<u>2-Way MSw</u>
Group A (conservative)	51	58.73	70.653
Group B (undecided)	39	62.08	70.653
Group C (liberal)	101	63.77	70.653
	<u>Observed Value</u>	<u>Critical Q (cv)</u>	
Group A - Group B	2.98	3.31	
Group A - Group C	4.51*	3.31	
Group B - Group C	1.53	3.31	

FACTOR II

	<u>N</u>	<u>Mean</u>	<u>2-Way MSw</u>
Group A (conservative)	51	24.27	33.485
Group B (undecided)	39	26.18	33.485
Group C (liberal)	101	27.66	33.485
	<u>Observed Value</u>	<u>Critical Q (cv)</u>	
Group A - Group B	2.48	3.31	
Group A - Group C	4.40*	3.31	
Group B - Group C	1.92	3.31	

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\*Observed value exceeds the Tukey critical value indicating significant differences between the groups.



- a. The size of the school district did not show significant differences among the scores, and Hypothesis 2 was retained for this variable.
  - b. The population composition of the school district did not appear to have a significant effect of the attitude scores of the respondents on Factor I and Factor II and Hypothesis 2 was retained for these two factors. Factor II, however, showed statistically different mean scores and Hypothesis 2 for Factor II on this variable was rejected.
  - c. The variable of length of time served as superintendent appeared to influence attitude scores. Those superintendents, both male and female, who had served longer than 10 years had a less favorable attitude toward women as managers than those with fewer years of service. Hypothesis 2 was rejected for Factor I, Factor II, and for Factor III.
  - d. The age of the superintendent had no significant effect on attitude scores in this study. Hypothesis 2 was retained for this variable.
  - e. The educational attainment of the superintendent appeared to have an effect on attitude scores on Factor I but not Factor II and Factor III scores. Hypothesis 2 was rejected for Factor I, general acceptance of females as managers, but retained for Factor II, feminine barriers, and retained for Factor III, manager descriptive traits.
  - f. The variable of attitude toward women's rights was related to the attitude scores toward women as managers for Factor I, acceptance of women as managers, and Factor II, feminine barriers. Those respondents with a liberal attitude toward women's rights had significantly more favorable attitude scores toward women as managers than did the conservatives. Hypothesis 2 was rejected for these two subscales. Factor III did not reveal a significant difference in attitude scores, therefore Hypothesis 2 was retained for this factor.
3. Hypothesis 3 was retained. Interaction effects were not obtained between the sex of the respondent and the demographic

variables of this study on the three subscales of the Women as Managers Scale when the data were statistically tested using two-way ANOVA.

## Chapter 5

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

The purpose of the study was to determine if superintendents of public schools view women as capable managers and to determine if male superintendents perceive the managerial capabilities of women differently than do female superintendents. The study attempted to measure whether any of the three factors: Factor I, general acceptance of females as managers; Factor II, feminine barriers; or Factor III, manager descriptive traits, as measured by the Women as Managers Scale, presented a barrier to women in educational management. The second purpose was to determine the relationship between attitudes and selected demographic variables within the sample.

The hypotheses for the study were the following:

Hypothesis 1 - There will be no difference between the mean score of the male superintendents and the mean score of the female superintendents on each of the three subscales of the Women as Managers Scale.

Hypothesis 2 - There will be no difference in the mean scores of the superintendents on the additional levels of the demographic variables on each of the three subscales of the Women as Managers Scale when broken down by the various levels of the other demographic variables:

- a. size of the school district,
- b. population composition of the school district,
- c. length of time as superintendent,
- d. age of the superintendent,
- e. educational attainment of the superintendent,
- f. superintendent's attitude toward women's rights.

Hypothesis 3 - There will be no interaction effects between the sex of the respondent and each of the demographic variables of this study for the three subscales of the Women as Managers Scale.

Briefly stated the statistical analysis produced the following results:

<u>WOMEN AS MANAGERS SCALE</u>			
	Factor I	Factor II	Factor III
HO <sub>1</sub>	Rejected	Rejected	Rejected
HO <sub>2a</sub> - Size of school district	Retained	Retained	Retained
HO <sub>2b</sub> - Population composition of school district	Retained	Rejected	Retained
HO <sub>2c</sub> - Length of time superintendent has served	Rejected	Rejected	Rejected
HO <sub>2d</sub> - Age of the superintendent	Retained	Retained	Retained
HO <sub>2e</sub> - Educational attainment of the superintendent	Rejected	Retained	Retained
HO <sub>2f</sub> - Attitude toward women's rights	Rejected	Rejected	Retained
HO <sub>3</sub>	Retained	Retained	Retained

### Conclusions

The findings of this study would support the results of the AASA study (1979) which concluded that men tended to view women as educational managers much less positively than did other women. The responses to particular statements on the Women as Managers Scale from the 1,691 superintendents (95 percent male; 5 percent female) and the

374 school board presidents or chairmen (72 percent male; 28 percent female) surveyed in the AASA study (1979) have been called disquieting by reviewers for what they disclose about an influential minority of male superintendents and male board presidents who did not agree with the items in Factor II, feminine barriers. It would appear that men view women's biological role as more constraining to women than women themselves view it. This difference in perception of the limitations woman's biology places on her professional functioning may help to explain the reluctance of male superintendents to employ women as managers in the public schools. The findings of this study would support previous research that women are perceived as lacking in leadership ability (Broverman, Vogel, Broverman, Clarkson, and Rosenkrantz, 1972) and in desirable manager descriptive traits (Bowman, Worthy, and Grayson, 1965; Orth and Jacobs, 1971; Schein 1973, 1974). For comparative results of the AASA study and the present study for the perceptions of both male and female superintendents' attitudes relevant to Factor II, feminine barriers, see page 80.

1. The findings showed that the attitudes of both male and female superintendents toward women as managers are largely favorable (as defined by the authors of the questionnaire used for this study); however, the female superintendent held much more favorable attitudes than did the males.

The total mean score on the Women as Managers Scale for the female superintendents was 132.98 while the mean score for the male

PERCENT OF SUPERINTENDENTS AGREEING TO SELECTED STATEMENTS ON THE  
WAMS IN THE AASA STUDY (1979) AND THE WALDO STUDY (1982)

STATEMENT: "The possibility of pregnancy does not make women less desirable administrators than men."

	AASA Study (Male)	Waldo Study (Male)	Waldo Study (Female)
Agreed	44%*	40%	73%

STATEMENT: "Women would no more allow their emotions to influence their administrative behavior than would men."

	AASA Study (Male)	Waldo Study (Male)	Waldo Study (Female)
Agreed	58%	46%	80%

STATEMENT: "Problems associated with menstruation should not make women less desirable administrators than men."

	AASA Study (Male)	Waldo Study (Male)	Waldo Study (Female)
Agreed	75%	60%	94%

STATEMENT: "To be a successful administrator, a woman does not have to sacrifice some of her femininity."

	AASA Study (Male)	Waldo Study (Male)	Waldo Study (Female)
Agreed	65%	58%	94%

STATEMENT: "On the average a women who stays at home all the time with her children is a better mother than a woman who works outside the home."

	AASA Study (Male)	Waldo Study (Male)	Waldo Study (Female)
Agreed	36%	17%	4%

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\*Percents were not available for the female superintendents of the AASA Study (Executive Educator, Fall, 1981).

superintendents was 117.74. The mean scores of the women were consistently higher on all three factors across the levels of the demographic variables of the Women as Managers Scale. This finding supports previous research that indicates that women are viewed less favorably by men than by women as suitable for management positions (Bennett, 1964; Schwartz, 1970; Schein, 1973; Schmuck, 1975; and Terborg, 1977).

The authors of the Women as Managers Scale indicate that a total WAMS mean score exceeding 96 or above can be interpreted as a favorable attitude toward women as managers. As can be seen from the total mean scores of the respondents, a favorable attitude was indicated in both groups comprising the study.

2. The attitudes of superintendents toward women as managers did not differ significantly along the levels of the size of the school district variable.

The lowest mean score along this variable was that of the superintendents from school districts of more than 20,000 students; however, there were not statistically significant differences among the mean scores for this variable. The findings of previous research was not supported by the results of this study, however. For example, Goss (1978), in a study of attitudes toward women in school administration in Tennessee, found that respondents from large school systems (25,000 students or more), viewed women as school administrators more favorably than did the respondents from smaller systems (fewer than 25,000 students).

3. This study found that the population composition of the school district was related to attitudes toward women as managers as measured by the Women as Managers Scale on Factor II, feminine barriers.

The means of the rural, urban, and suburban respondents were very similar on Factor I and on Factor III of the WAMS, but the rural respondents had the lowest mean score in the study on this variable on Factor II. This finding supports previous research by Byrnes, Hines, and McCleary (1978) who found that 70 percent of female principals practice in the three largest population categories and only 14 percent of female principals work in cities or towns with populations of less than 149,999. Although limited to the secondary principalship, that study would suggest that employers view women more favorably as principals in urban areas. Ortiz (1982) found that women are more likely to acquire an elementary principalship in larger cities. Goss (1978) found that more favorable attitudes toward women as managers were found in urban areas. This study supports their findings on Factor II.

4. The length of time the respondent had served as a superintendent had a significant effect on the attitude scores on general acceptance of women as managers (Factor I); on feminine barriers (Factor II); and on manager descriptive traits (Factor III).



The findings showed that the female superintendents with more than 10 years experience held attitudes more similar to the male superintendents than to the females with fewer than 10 years experience as superintendents. This difference was statistically significant at the .05 level. Additionally, this study found, although all superintendents were favorable to women as managers, the more experienced superintendents, both male and female, view women less favorably than do the respondents of both sexes with fewer than 10 years of experience.

Almost 40 percent (75 of 191) of the respondents in this study had been a superintendent for more than 10 years. The greater number of women with less than 10 years of experience as a superintendent (67) as compared to the men (49) would appear to support Saunders' (1976) and Estler's (1975) findings that female superintendents have less experience than do male superintendents.

5. The demographic variable of the age of the superintendent was not related to differences in attitude scores on the Women as Managers Scale.

The data obtained on the previous variable, length of time served as superintendent, would suggest that there could possibly be a connection between age and attitude toward women as managers. Presumably, the more experienced superintendent (over 10 years as superintendent) would also be chiefly in the over 50 years of age category. However, the data did not indicate any significant

differences in attitude scores on the levels of this variable. Contrary to the finding of Schein's (1973, 1976) studies of attitudes in business organization, the older superintendents did not see women as more capable managers than did the younger respondents.

6. The superintendents who held the doctorate were significantly more favorable toward women as managers than were the superintendents of lesser education on Factor I, general acceptance of females as managers. On Factor II, feminine barriers, and Factor III, manager descriptive traits, the scores were not significantly different on the levels of the variable.

Overall, the most favorable attitudes were held by the respondents with a Doctorate, while the lowest mean scores were from the group with CAGS degree. The high mean scores from the 96 respondents with a Doctorate supports the Terborg, et al (1975) research that showed that favorable attitudes toward women as managers are correlated positively with educational attainment, but the lowest mean scores of the CAGS group (rather than those of the MA group) does not.

7. Those superintendents who rated themselves as liberal had significantly higher mean scores than those who rate themselves as conservative with regard to women's rights on Factor I and Factor II of the Women as Managers Scale, but not on Factor III.

The undecideds were not significantly different from either the conservatives or liberals but had mean scores midway on the continuum between the conservatives and the liberals. This finding supports Terborg's (1977) research which correlated a liberal attitude toward women's rights with a favorable attitude toward women's capabilities.

8. The results of this study raised some questions which follow-up studies might investigate. For example:
  - a. Why were the rural respondents less favorable toward women as managers of Factor II, feminine barriers, than were the urban and suburban respondents?
  - b. Why did superintendents with more than 10 years experience as superintendents view women less favorably than those with fewer than 10 years experience.
  - c. Would not superintendents with over 10 years experience be in the older (over 50) age group and be inclined to show a less favorable attitude on the age variable of this study? That, of course, was not the case.
  - d. If educational attainment correlates with a favorable attitude toward women as managers, as the Terborg studies found, why was the mean score of the CAGS degree holders' group lower than the mean score of the MA degree holders' group?

After examining the data, these questions arise. Studies designed to answer them might prove interesting and informative.

Recommendations

1. There appears to be a need for training for male school superintendents to help them become aware of attitudes which may work to limit women in job placement and promotions in educational management. Bass, Krusell, and Alexander (1971) suggested that male managers should be given the opportunity to examine their attitudes toward women in work situations and to become familiar with the actual data regarding women, their skills, dependability, and orientation toward work.
2. Ongoing programs of education, such as inservice seminars, should explore prevailing attitudes toward women as school managers and encourage the development of more opportunities for women in educational management.
3. Additional research in the area of attitudes toward women in educational management is needed to determine why male attitudes are less favorable than female attitudes and to determine how the attitudes of male superintendents might be improved.
4. Women aspiring to public school management should be made aware that male superintendents tend to view female managers less favorably than do female superintendents. Those women admitted to graduate programs in educational administration should be apprised of the prevailing tendency of male superintendents to view women less favorably than do female superintendents.

5. Research exists which indicates that women are viewed more favorably as school managers in urban areas. Women training for education administration should be made aware that applying for positions as school managers in urban school districts may increase their chances of being employed.
6. Although there are few women in educational management and administration, it may be that decision-makers in education, principally superintendents, are more receptive to women as managers than administrators in business and industry. A study designed to compare the attitudes of the two groups would provide additional knowledge. The superintendents, as a group, had favorable attitudes toward women (as favorable scores were defined by the authors) in this current study.
7. Subsequent studies on attitudes toward women as managers should investigate pertinent interactions to provide additional knowledge. Shakeshaft (1979) notes that few of the studies on sex discrimination that she has examined have looked into interaction effects as related to demographic variables. She indicates that this is a serious weakness of previous studies in this area.

As adequate assessment of women in management must deal with attitudes of others toward women in management positions. In a time when women are seeking broader recognition of their abilities, facts are needed. Data of attitudes held by superintendents regarding the ability of women to manage the public schools should promote a fuller

understanding of why women do not occupy, in large numbers, positions of leadership. This study should extend the knowledge base regarding the availability of these posts to women based upon how superintendents perceive women as possessing the characteristics or descriptive traits valued in managers and whether or not superintendents perceive men and women possessing these traits equally.

Those who are responsible for the recruitment and selection of educational administrators appear to be unaware of significant findings that are related to the performance of effective school management and administration, thus depriving American public schools of potentially beneficial administrative leadership. Ideally, administrators would be chosen on the basis of their ability, not their sex.

Perhaps future attitude research will provide additional knowledge about how stereotypic attitudes toward women as managers work to keep them from acquiring management positions in the schools. It is to be hoped that the heightened interest in women's studies will produce research in the coming decade that will result in further enlightenment.

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**APPENDIX A**

**INITIAL LETTER TO SUPERINTENDENTS**

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY  
BLACKSBURG, VIRGINIA 24061

703 Mill Race Drive  
Martinsburg, West Virginia 25401  
June 24, 1981

Dear Superintendent:

I am presently involved in a research project investigating the management characteristics attributed to women as perceived by school superintendents. The information you provide will constitute the data from which I will complete my doctoral dissertation at Virginia Polytechnic Institute and State University.

As one of the few superintendents in the United States selected to participate in this study, your professional opinions are needed and valued. The completion of the enclosed questionnaire should not take an undue amount of time since all responses can be indicated with a check mark. Anonymity will be preserved, and all data will be compiled collectively for analysis and interpretation. A control number, known only to me, will be assigned to each questionnaire for follow-up purposes, but no means will be used to identify you or your school district.

If you will complete and mail the questionnaire to me in the enclosed stamped, self-addressed envelope, I will appreciate it very much. I know you are very busy, but I feel the study is worthwhile and I solicit your help. Only by obtaining information and input from the superintendents selected for this research can I conduct a valid and meaningful study. I will be happy to share a summary of the results of the research project if you should so wish.

If there are any questions concerning the questionnaire or the study, please feel free to contact me at my home address in Martinsburg or call 304/263-2381 collect.

My sincere thanks,

Karen R. Waldo

APPENDIX B

QUESTIONNAIRE (WAMS)



APPENDIX C

BIOGRAPHICAL DATA QUESTIONNAIRE

QUESTIONNAIRE  
BACKGROUND DATA

Scale I Please check the appropriate blank.

Size of your school district

- a. under 5,000 students \_\_\_\_\_
- b. between 5,000 and 20,000 students \_\_\_\_\_
- c. more than 20,000 students \_\_\_\_\_
- d. other \_\_\_\_\_

Population composition of your school district

- a. largely urban \_\_\_\_\_
- b. largely suburban \_\_\_\_\_
- c. largely rural \_\_\_\_\_
- d. other \_\_\_\_\_

Length of time you have served as a superintendent. (Indicate total years including both the number of years in present position plus years as superintendent in any other district.)

- a. from 1 year to 4 years \_\_\_\_\_
- b. from 5 years to 10 years \_\_\_\_\_
- c. more than 10 years \_\_\_\_\_
- d. other \_\_\_\_\_

What is your age? (Write in exact age if you wish.)

- a. between 30 and 40 years of age \_\_\_\_\_
- b. between 40 and 49 years of age \_\_\_\_\_
- c. 50 years of age or over \_\_\_\_\_
- d. other \_\_\_\_\_

Level of your educational attainment

- a. College Degree \_\_\_\_\_
- b. Master's Degree \_\_\_\_\_
- c. 6th Year Degree or CAGS \_\_\_\_\_
- d. Doctorate \_\_\_\_\_
- e. Other \_\_\_\_\_

In regard to women's rights, would you rate yourself?

- a. conservative \_\_\_\_\_
- b. undecided \_\_\_\_\_
- c. liberal \_\_\_\_\_
- d. other \_\_\_\_\_

1. What is your sex? Male \_\_\_\_\_ Female \_\_\_\_\_
2. How many female principals do you presently have employed in your school district? \_\_\_\_\_ (do not include assistant principals)
3. Have you hired any female principals within the last five years?  
Yes \_\_\_\_\_ No \_\_\_\_\_
4. Are you a superintendent of an operating school district in which you administer local schools? Yes \_\_\_\_\_ No \_\_\_\_\_
5. How many male principals do you presently have employed in your school district? \_\_\_\_\_ (do not include assistant principals)



APPENDIX D

FOLLOW-UP LETTER TO SUPERINTENDENTS

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY  
BLACKSBURG, VIRGINIA 24061

703 Mill Race Drive  
Martinsburg, West Virginia 25401  
July 21, 1981

Dear Superintendent:

I sent a letter to you on June 24 requesting your help to complete a dissertation I am writing on the management characteristics attributed to women. I realize you have a busy schedule, but your participation and professional opinion are truly needed.

I have tried to structure the response procedure in a way that will minimize any encroachment on your time. I would like to restate that no means will be used to identify you or your school district. A control number, known only to me, is assigned each questionnaire for the purpose of follow-up only.

If you decline to participate, please send this letter in the enclosed self-addressed envelope. That way I will know you received it, and no further follow-up will be necessary. Any comments on why you declined to participate would be helpful.

I am anxious to have the questionnaires returned so as to begin an analysis of the data. Your participation will be greatly appreciated.

Sincerely,

Karen R. Waldo

P.S. Enclosed is another questionnaire if you need it.

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the scanned document**

AN EXAMINATION OF ATTITUDES TOWARD WOMEN  
AS MANAGERS IN PUBLIC SCHOOLS

by

Karen Raines Waldo

(ABSTRACT)

This research explored the attitudes of 191 male and female United States public school superintendents toward women as managers in public schools.

The purpose of the study was to see if women were viewed favorably as managers, to see if the sex of the respondent (superintendent) affected attitude scores and to explore the relationship between the demographic variables of the study and the attitude scores.

The demographic variables included size and population composition of the school district, the number of years the respondent had been a superintendent, the age and educational attainment of the superintendent, and his/her attitude toward women's rights.

The instrument used was the Women as Managers Scale which contains three subscales. Two-way ANOVA was used to analyze the data and to investigate interaction effects.

The data analysis revealed that both sexes viewed women as managers favorably, but the female superintendents has consistently and significantly more favorable attitude scores. Respondents from rural school districts had less favorable attitude scores on one subscale of the instrument. The superintendents with more than ten years experience had less favorable attitude scores than did those with fewer years on all three subscales of the WAMS. The respondents with a Doctorate

degree had more favorable attitude scores than those with lesser degrees on one subscale of the instrument. Those who had a liberal attitude toward women's rights had more favorable attitude scores on two subscales of the instrument. No interaction effects were obtained.