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Women in Public School Administration: Factors that Facilitate Attainment

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WOMEN IN PUBLIC SCHOOL ADMINISTRATION:
FACTORS THAT FACILITATE ATTAINMENT

by
Betty Newlin LaPointe

A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
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Department of Educational Leadership

Western Michigan University
Kalamazoo, Michigan
December 1994
The educational system in the United States, although staffed by an equal proportion of men and women in teaching roles, is administered predominantly by men. Women are represented in fewer than 5% of our nation's schools in the role of superintendent, and only 10% of the high schools are administered by women principals.

The purpose of this study was to expand the research on the factors that facilitate the attainment of key leadership positions for women within the public school, and to determine differences in access between the positions of secondary principal and superintendent.

A total of 78 female administrators, 83% of the population, have provided insight into demographic backgrounds and self-perceived factors that facilitated the attainment of their position of leadership in Michigan’s public schools. This study contains self-perceived personal history factors; educational background and experience factors; networks, mentors, role models, achievement motivation, and attitudes toward sex discrimination, sex-role stereotyping within the career path; and attitudes toward the myths and generalizations that explain the underrepresentation of women in school leadership as they relate to attainment of the position of superintendent and secondary principal.
Analysis of data from a survey instrument containing self-perceived questionnaire statements regarding factors that facilitated the attainment of an administrative position, revealed differences between the two populations in three areas. Superintendents perceived that female administrators who had the influence of working mothers as role models were more achievement motivated and likely to succeed in attaining an administrative position. Secondary principals placed more value on "being in the right place at the right time" as a factor in attainment than did the superintendents. Secondary principals also placed more value on interpersonal skills as an attainment factor than did superintendents. Perseverance, possession of advanced degrees, successful performance in previous positions, and use of mentors were cited in narrative form by respondents from both groups as key factors in facilitating the attainment of their positions.

Demographic differences between groups were noted in a disproportionate number of doctoral degrees among superintendents. Secondary principals also demonstrated general disinterest in seeking the position of superintendent.
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Women in public school administration: Factors that facilitate attainment

LaPointe, Betty Newlin, Ed.D.
Western Michigan University, 1994
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Betty Newlin LaPointe
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CHAPTER I

INTRODUCTION

"In the near future, we shall have more women than men in charge of the vast educational system. It is a woman's natural field, and she is no longer satisfied to do the larger part of the work and yet be denied the leadership" (quoted in 1909 in The Western Journal of Education article, "The Highest Salaried Woman in the World," cited in Gotwalt & Towns, 1986, p. 13). Ella Flagg, superintendent of the Chicago Public Schools, made this prediction near the turn of the 20th century. More than eight decades later, women continue to be underrepresented in public school leadership positions (N. T. Mertz & McNeely, 1988).

Between 1910 and 1930, in the United States, 8 women served as state superintendents, 45 as district superintendents, and 213 as county superintendents. During this period, women were principals in 6% of U.S. high schools (Gotwalt & Towns, 1986). In today's system, women are moving from the classroom into administration, but still occupy only 10% of the high school principalships and 4.8% of U.S. public school superintendencies (Heller, Woodworth, Jacobson, & Conway, 1991).

Studies show that although women may earn higher grades in school, "men write more books, earn more degrees, produce more works of art, and make more contributions in all professional fields" (Callahan,
Since the Nobel Prize was established 80 years ago, only 5 women have received the award. Of the nearly 2 million American engineers, only 3.5% are women; and of 225,000 physical scientists, only 12% are women (Dembart, 1984). Women are underrepresented in leadership positions in most fields and particularly in public education, regardless of academic achievement, training, or ability (Eccles, 1987).

Failure to realize one's potential has been an issue of concern in the study of high achieving women. Longitudinal research shows a consistent pattern of lowering aspiration levels and declining achievements of this population (Kaufman, 1981). Sears and Barbee as well as White (all cited in Hollinger & Fleming, 1988) found that high achieving women often reflect on their lives and perceive missed opportunities as a waste of the potential they possess.

This phenomenon is demonstrated in the field of educational leadership as well. The superintendency is the highest administrative position a woman may attain within a public school system, yet fewer than 5% of the public school superintendents in the United States are women. These women at the top, however, hold the answers to the questions of attainment. What factors have enabled them to reach their potential?

To understand this phenomenon, a closer look at those who have been successful in attaining key public school leadership roles may more clearly define the factors that women perceive to be instrumental in attaining these positions. Is there a relationship between factors that facilitate attainment and the level of public school leadership attained?
What factors separate the superintendents from those in middle management positions, such as the secondary principal? Women in this position have been found to remain in this position rather than moving on to a superintendency (Gaertner, 1981). Through investigating the women who represent two levels of administration, with an eye to differences in the factors that facilitate attainment, the key elements necessary for position attainment may be determined.

Since Margaret Mead's work in the 1930s, and in current studies, researchers have posited a number of reasons to explain the underrepresentation of women in leadership positions. Mead, writing in 1935, explained the conflict of achieving success and remaining a woman in this manner:

The remarkable matter is not that there have been so few successful women in masculine fields but that there have been as many as there have been, that so many women have been gifted enough to carry this double load. For a woman to succeed in a field defined as male, she must not only compete with men in a difficult and exacting occupation but work under the knowledge that with every success she gains, as a lawyer or a business woman, she loses, as a woman, her chance for the kind of love she wants. With every step which a man takes towards success, he also takes a step towards personal happiness: he proclaims himself the more a man, the more desirable as a lover and husband. He steps forward as an achieving individual and forward as a human being. But, for each step which the woman takes in one capacity, she must take a step back in the other. Either she proclaims herself a woman and therefore less an achieving individual or an achieving individual and therefore less a woman. (p. 303)

Rodenstein, Pfleger, and Colangelo (1977), in their research of the career development of gifted women, revealed several conflicts confronting this population.

The conflict between expectations for high-achieving students and expectations for women: developing one's talents
vs. being selfless, nurturing, and giving; being active, exploring and self assertive vs. being passive and dependent; pursuing a challenging career vs. running a household; developing one’s talent vs. putting the husband’s career first; and succeeding in male dominated careers like business and medicine vs. being soft and feminine. (p. 340)

Another stereotype confronting females with high ability is the concept that they fear success. Studies by Horner (1972) found that females’ fear of success may cause them to believe they will be rejected by peers or found undesirable by the opposite sex.

Estler (1975), in analyzing the underrepresentation of women in public school administrative positions, posited three views: The women’s place model, the discrimination model, and the meritocracy model. The woman’s place model assumes that different socialization patterns for men and women account for the absence of women in leadership. Society does not value a woman pursuing a career that will keep her from her family.

The discrimination model suggests men are hired and promoted preferentially in educational administration. Estler’s (1975) analysis revealed that although an equal number of female and male teachers held administrative credentials, the median number of years in teaching before appointment to the elementary principalship is 5 years for males and 15 years for females. In a study of women in business, Kanter (1977) found that "male corporation managers consciously chose men over women because women seemed to be an unpredictable and unproven commodity" (p. 59). Discrimination existed even in membership of women in professional organizations as late as the 1970s. Phi Delta Kappa, one of the leading professional fraternities in educational
leadership, excluded women until 1971 (Biklen & Brannigan, 1980).

The meritocracy model implies that people are promoted on the basis of their ability. However, in a study by Gross and Trask (1976), professional performance of teachers and amount of learning was higher at schools with female principals. These findings suggest there are factors aside from ability that are related to attainment of an administrative position.

The literature on women in public school administration is dominated by studies explaining the underrepresentation of women. This research is fundamental in providing an understanding of the barriers women face who choose to enter the field. However, a closer look at the factors that enable women to reach their potential as leaders in the public school system may provide more direction than focusing on negative factors.

Shakeshaft (1989), in reviewing previous studies dealing with the attributes of successful women, found that women credit strong family support, personal skills, and community and co-worker support as factors facilitating their role attainment. Dopp (cited in Dopp & Sloan, 1986) found women superintendents to be confident in their positions, possessing strong interpersonal skills and competencies. In addition, the superintendents in her survey believed that mentorships were helpful. The subjects credited strong marriages as positively affecting their careers but they were divided in their attitude as to whether being female hindered them in accomplishing their career goals. They credited such personal qualities contributing to their success as energy, enjoyment of role, communication skills, and interest in people.
The population of women who have overcome barriers and possess qualities and skills enabling them to attain public school leadership positions are in the minority, as demonstrated in the small percentage holding these positions reported in the nation. The women who have attained these roles may provide answers to the questions surrounding this underrepresentation.

Will the women who have attained the superintendency, the top administrative position, cite factors different from women in the secondary principal's role? What factors separate superintendents from secondary principals who tend to remain in that position? Are there factors unique among women who have attained the superintendency, the highest public school leadership position? What is the relationship between the factors that facilitate attainment and the level of public school leadership attained? These issues provide the direction in this study for investigation into the factors that women perceive have facilitated their attainment of key public school leadership positions.

Purpose of Study

The public educational field, although dominated by women teachers, has produced few women secondary principals and even fewer superintendents. By studying the women who have acquired these administrative positions and looking for differences in the factors they perceive have been influential in their attainment, a clearer picture of the factors that contribute to the attainment of leadership positions may emerge, thus answering the question: What are the factors that facilitate attainment, and how do they relate to the level of public school
leadership position attained?

The major investigation of this population has focused on barriers to attainment rather than factors perceived to be instrumental in the attainment of key leadership positions. Much of this research examines social and psychological factors that deter women from achieving high level leadership positions, growing out of the women's movement of the 1960s and 1970s.

Other research on women in educational leadership addresses the legislation designed to correct the imbalance between male and female leaders to achieve equity. Many of these studies compare the female administrator to the male in attempt to explain underrepresentation.

A number of the studies investigate female school administrators collectively from elementary, middle school, assistant, and secondary principals to assistant superintendents and superintendents, in attempt to describe the characteristics that facilitate attainment. Some studies have profiled superintendents as a separate population while others have attempted to characterize principals through factors that influence attainment of the position. These studies center on common factors for women administrators rather than investigating differences and possible relationships between factors and the level of administration attained.

The purpose of this study is to answer four broad questions:

1. Will women secondary principals and superintendents cite different perceptions of personal history factors as having facilitated attainment of their leadership position?

2. Will women secondary principals and superintendents cite different perceptions of educational backgrounds, professional training,
and experience as having facilitated attainment of their leadership positions?

3. Will women secondary principals and superintendents cite different perceptions of factors within their career paths as having facilitated attainment of their leadership positions?

4. Will women secondary principals and superintendents cite different perceptions of the myths and generalizations believed to explain the underrepresentation of women in their positions?

Rationale of Study

The purpose of this study was to expand the research on the attainment of key educational leadership positions by women within the public school system through looking at possible differences in the attainment of the role of secondary principal and the role of superintendent. What personal history factors will both groups perceive contribute to attainment? What is the relationship between family support, decisions to marry and have children, age, family responsibilities, and level of administration attained? Are there factors related to education, training, and experience that administrators will credit as influential in reaching their current positions? What is the relationship between advanced degrees, credentials, experience, and communication skills and the level of administration attained? What factors in their career paths will they perceive were instrumental in attaining their administrative roles? What is the relationship between such factors as working mothers, achievement motivation, networking role models, career planning, being in the right place, being hired in one's own district, interview
skills, and attitude toward sex discrimination and level of public school leadership attained? How do these administrators perceive the common myths and explanations for underrepresentation of women in administration? Is there a relationship between the perceptions of superintendents and principals regarding the myths that explain underrepresentation such as sex discrimination, lack of same-sex role models, lack of motivation, lack of decision-making skills, role of women in society, fear of success, and networking? Will these factors perceived to facilitate attainment of position be different for female superintendents and secondary principals?

This study focuses on the relationship between women's self-perceived factors instrumental in attaining a public school administrative position and level of leadership attained, namely, the secondary principalship and the superintendency.

Summary

Although women play major roles as teachers in America's public schools, they continue to be underrepresented in key leadership positions in these institutions. This study investigates the factors that women cite as facilitative of their attainment of key leadership positions. Through investigating differences between two levels of administrative positions, the factors that facilitate attainment may be more clearly defined. Chapter II outlines previous research conducted on women in public school administration that lays the groundwork for this study.

The methodology used in this study, including instrumentation and specific hypotheses proposed to answer the four main research
questions, is presented in Chapter III. Analysis of data follows in Chapter IV, with a synthesis of the findings presented in Chapter V.
CHAPTER II

REVIEW OF RELATED LITERATURE

The purpose of this study was to determine the relationship between the factors that female public school administrators perceive have facilitated their attainment and the level of public school leadership attained. These successful women administrators provide insight into the personal qualities and background necessary for these roles as well as the external factors that they perceive have contributed to their attainment. A review of the literature surrounding women in administration uncovered the major issues related to barriers that inhibit attainment as well as those factors that facilitate attainment.

Literature was reviewed that investigates relationships between personal background; education; training and experience; achievement motivation; factors within career paths such as role models, networking, and mentoring; as well as attitudes toward sex discrimination, sex-role stereotyping, and the myths and generalizations believed to explain the underrepresentation of women in key educational leadership positions. The findings from these studies have guided the direction for this work, the intent of which is to determine differences in factors that facilitate attainment of the position of secondary principal and superintendency.

Considerable research is available on the barriers these women face in their quest for leadership positions. These studies address the sex-role stereotyping, conflict between expectations for self versus...
society's expectations, and fear of success. This research was reviewed and presented as it provides insight into the qualities candidates need to overcome barriers.

Many of the studies dealing with underrepresentation were done during the late 1960s and 1970s. This literature is part of the large body of the feminist movement. Although the findings from this era may answer questions raised during that particular time period, the research may be less viable in today's changing world. Studies conducted during the 1980s to the present provide insight into more current attitudes toward woman's role in society and her representation in leadership positions. A number of studies present a profile of the successful public school administrator and are descriptive in nature.

Personal Backgrounds of Women Administrators

Included in the literature on women in public school administration are studies of personal background factors. These investigations focus on the variables of age, birth order, parents' educational background, marital status, number of children, and family as a support or barrier. Studies of this nature were reviewed to explore the relationship that exits between a woman's personal background and her attainment of a key public school leadership position.

Gotwalt and Towns (1986), in a descriptive study, found that 8 out of 10 female superintendents were between the ages of 35 and 55; 57% of these were married, and 3 out of 10 women had one or two children. Family background factors were similar among these women. Three quarters of them were first-born children; 90% grew up in rural
communities and had been raised within 200 miles of the school district they currently were serving. These women reported that strong support and encouragement from their families while growing up enabled them to pursue and attain administrative positions.

Ortiz and Venegas (1978) found that women in all levels of administration were in their mid to late 40s with age increasing, the higher the position attained. McDade and Drake (1982) surveyed the total population of 142 women superintendents in public school districts in the United States to determine the relationship between personal, educational, and professional characteristics of women and career paths. They found over two thirds were in the age category of 40 to 49. Basing her study on Kanter's model, Maienza (1986) found that women superintendents are older than their male counterparts when attaining their first superintendencies and stay longer in principalships or other middle management positions. If age is viewed as a factor in attainment, this is a variable to investigate to determine if it is related to the level of administration attained.

Brooks (1976), in an earlier study, found that women administrators were generally first born, raised in families with three or fewer siblings, or were only children. This is consistent with research conducted a decade later by Maienza (1986) who found 60% of the respondents in her survey of women in administration were first born. In profiling the subjects in this study, the issue of birth order will be examined as it relates to level of position attained.

Other researchers have investigated parents' educational background and career as it affects the career choices of their daughters.
The fathers of women school administrators were found to be unskilled laborers, followed by skilled laborers, educators, business and professional men (Brooks, 1976). Shakeshaft (1989), in her review of 13 dissertation studies found mothers of administrators to be more highly educated than the fathers, possessing high school and college degrees. The majority of mothers of administrators, however, were reported to be homemakers, in work done by McDade and Drake (1982). While it has been found that daughters of working mothers are more likely to be motivated to work than daughters of nonworking mothers (Nieva & Gutek, 1981), daughters may be influenced by their mother's endorsement of work (Baruch, 1972). The mother's influence is reflected in attitude toward roles and sense of self, as opposed to the daughter's choice of a role similar to her mother's. Other findings indicate the messages from the mother, rather than her own role, are more influential in the career choices of daughters (Sholomskas & Axelrod, 1986). With contradictory findings on the mother's influence, and little discrimination between the effect on levels of administration, the relationship between a mother as role model is a variable to explore as it relates to a woman's attainment of the principalship or superintendency.

In a synthesis of 27 studies, 56% of all women administrators were found to be married, while 65% were parents. The statistics include those divorced or widowed, which may account for a greater percentage of parents than marriages (Shakeshaft, 1989). Gross and Trask (1976), in contrast, reported in an earlier study, that two thirds of the women administrators they had surveyed were single. These findings suggest there is a relationship between marital status and
leadership attainment, as well as the decision to have or not have a family. Responsibilities of a family are construed as being in conflict with the demands of an administrative position, but the relationship between marital status and level of position attained has not been established. Given the demands of the superintendency as effecting marital relationships and family responsibilities, the perception of these factors as they relate to level of position attainment is an area for further investigation.

Strong marriages and support from spouses and family members were found to be factors contributing to the attainment of positions by women in school administration (Dopp & Sloan, 1986; Gotwalt & Towns, 1986). Edson (1987) reported that one third of the women administrators in her survey considered the inability to relocate a barrier to their advancement. A supportive family and spouse appear to be important factors for a woman's attainment of an administrative position. It would appear that the responsibilities of the superintendency might require additional family encouragement and support; thus, the relationship between family support and level of public school administration attained is a factor to explore.

There appears to be a consistent pattern in the profile of women in administrative positions in terms of personal background characteristics as defined by the findings of the researchers cited. The investigations that focus on the commonality of women administrators, present a profile of administrators in general, rather than exposing possible differences in factors for women in accessing different levels of administration. Is there a relationship between personal background factors and
the attainment of the role of secondary principal and superintendent? Are there differences in personal backgrounds that enable or limit a woman in her attainment of role position? The factors outlined throughout the literature guide this investigation into answering the first question in this study of the relationship between personal history factors and the attainment of the role of secondary principal and superintendent.

Another area of study uncovered in the review of the literature focuses on the variables of educational background, training, and experience as they relate to the attainment of a key public school leadership position.

**Educational Background, Training, and Experience**

Part of the body of literature surrounding women in administration, investigates advanced degrees, experience in the classroom, and other administrative training, as factors related to attainment of key public school leadership positions. Several of the studies on educational background are comparative studies between male and female administrators; however, they also provide educational background and training profiles of women currently in administrative positions.

Shakeshaft (1989) reported that 50% of all doctoral candidates in educational administration are reportedly women, and more women are working on advanced degrees in that field. She found these women generally began their graduate work in their late 20s or early 30s. The courses of study they pursued were specialization in education or in administration. Women holding administrative positions, however, were more likely to have only a master's degree with 17.6% holding
doctorates. In a national survey of public school administrators, Maienza (1986) reported 60% of the women superintendents who responded held doctorates.

Dopp and Sloan (1986) found that women in educational administration have higher levels of formal preparation than their male counterparts. Findings from the literature indicate that women in leadership positions, although equal in education and qualification, have to work harder at being accepted and have to possess more advanced degrees than men to attain these positions.

Adkison (1985) conducted a survey of administrative aspirants in a metropolitan school system in the southwestern United States in the mid 1970s. Formal education was the top ranked factor for women who aspired to an administrative position at that time. Women aspirants in this study held master's degrees, education specialist, or doctoral degrees. Educational training and background were found to be key factors in these studies that influence women's attainment of leadership positions in education. The studies reviewed indicate there is a relationship between educational preparation and position attainment. The relationship between advanced degrees and the level of public school leadership position will be studied.

McDade and Drake (1982), in their study of superintendents, found their sample had fewer than 16 years of experience as classroom teachers before entering nonteaching roles. Women who aspire to the superintendency in small Northeast districts follow a career path with interruptions for family in direct line to administrative positions, or interruption for reasons other than family and a specialization path to the
position. Women in the North Central, South, and West follow different career paths. Those from small districts in these areas follow career paths of specialization and interruption for reasons other than family. Superintendencies of small districts are most frequently attained by women from within the district who have not interrupted their careers.

Yeakey, Johnston, and Adkison (1986) found that although women may attain leadership positions such as elementary principal, coordinator of programs, curriculum consultant, or supervisor, these positions do not provide the opportunity or visibility necessary for advancement within a school district. Gross and Trask (1976) found that the elementary principalship is often a dead-end job because once a woman takes this position she is likely to stay there out of dedication to the students and their education.

Shakeshaft (1989) found the two administrative positions most generally attempted by women seeking leadership roles are the elementary principalship or specialist in reading, language, or fine arts. Typically, a woman will stay in these positions or she may be promoted to a central office position as director or curriculum coordinator. The minority of women who attain the secondary principalship, assistant superintendency, or superintendency have career paths more similar to men's career paths.

Ortiz (1982), in her study of career patterns in education, in contrast to Shakeshaft's (1989) findings, discovered the elementary principal position, the role most likely held by a woman, to be the least likely to lead to other administrative positions. She claimed that a woman in this position has attained this role after 15 years of experience.
and may not continue an upward move at this point in her career. The woman in this position, now is in competition with younger, white males for higher administrative positions. The secondary principalship, according to Ortiz, is more likely to lead to a superintendency.

Gaertner (1981) reported three paths, two of which lead to the superintendency. One is by way of specialist to supervisor to assistant superintendent to superintendent. This is typical of a male's career path, while women on this track generally stop at the supervisor role. The second mobility path moves from assistant secondary principal to assistant superintendent to superintendent. In this study, women were found rarely to travel this route. The career path most reported by women was assistant elementary principal to elementary principal and then the superintendency of an elementary district. These career paths leave few women in viable positions for secondary school principal and superintendent.

In Maienza's (1986) qualitative study of men and women in metropolitan area school districts, she reported that 10% of the women had experience as assistant principals, 40% had been supervisors of curriculum, 40% had served as directors, and 80% had been principals (level unspecified). The findings on education and experience of women who have attained leadership positions in education are diversified, without a single, clearly-defined career path. The training and professional experience that women administrators have is a variable to be explored as it relates to the attainment of the level of administration they hold. The educational backgrounds and experience of women administrators appear to be factors strongly related to the level of attainment of
administrative positions.

Women who are successful in attaining administrative positions are found to be older and have more experience than their male counterparts. They also have had to display extraordinary competence to enter the field and have well-developed communication and interpersonal skills (Sadker & Sadker, 1985). Communication and interpersonal skills appear to be factors that facilitate the attainment of key public school leadership positions. In A. D. Hoffman’s (1991/1992) study of public school administrators in New York, women perceived the demands for interpersonal and communication skills increased with the level of administrative position. The relationship between these factors and level of administration attained are areas for investigation in this study.

The literature has pointed to a number of factors that women have identified as facilitative of attaining positions. The findings from the studies reviewed guide the investigation toward answering the second broad question that seeks to establish the relationship between educational background and experience factors and the level of public school leadership attained.

A woman's relationship with other influential educational leaders and interactions within these positions have provided the basis for a number of other studies. The extent to which role models, mentorships, and networks have been effective in the attainment of administrative positions have formed the basis for these investigations.
A number of factors have been identified in the literature that relate to the attainment of a key public school leadership position. The relationship of role models has been the focus of several studies. Other literature investigates the effect of mentorships and networking on role attainment. A large body of literature focuses on the factors that women see as barriers to attainment. This literature deals with sex-role stereotyping and sex discrimination. The effect of legislation on opening doors for women was also reviewed as it may be viewed by some as a factor in attainment.

Shakeshaft (1989) found that women turn to administration in their 30s usually through the encouragement of someone in their district. If a woman attempts a position on her own and fails to obtain it, she may try once or twice again, but if unsuccessful will pursue it no further.

In a study conducted in 1984-85 of school superintendents in Illinois, Dopp (cited in Dopp & Sloan, 1986) found that most career paths of female administrators began with elementary principalships and that women entered administrative positions not as a conscious career path, but as a result of external influences. The variable of career planning would appear to be a factor in relation to the level of administrative position attained. Are superintendents more likely to have planned a career in administration than secondary principals? Career planning and its relationship to the attainment of the role of secondary principal and superintendent is an area of investigation in this study.
Being in the right place at the right time was perceived as the single most important factor associated with attainment of an administrative position by 51% of the female administrative respondents reported by A. D. Hoffman (1991/1992). Studies that explore the relationship between luck as a factor in attaining a public school leadership position are sparse. However, in light of Hoffman's findings, it would appear to be a factor to investigate as it relates to a woman's perception of her level of position attainment.

Lovelady-Dawson (1980) found that role models, to be effective, must be of the same sex, whereas sponsors or mentors may be either a man or woman. This mentor is seen to play an important role in offering support for a position or promotion. Although this sponsorship is limited, those who have entered administrative careers see it as an important factor (Covel, 1977/1978).

Dopp (cited in Dopp & Sloan, 1986) found that female teachers and mothers were cited as role models and mentors by the superintendents in her survey. The influence of working mothers as role models in relationship to level of administrative position attained will be examined. In the same study, female superintendents said that in the work place, male colleagues were more helpful than female co-workers.

Brown and Burt (1990) found that one half of the women in their study were encouraged by a woman role model whom they admired. Of these women, many had not considered an administrative position before being supervised by one. They found that women serving as role models have a positive influence on women entering positions of educational leadership. Thirty-six percent of the women respondents in a
1989 survey reported they aspired to become administrators compared with only 17% indicating a desire to enter administration in 1982. The variable of the value of role models is a pressing issue in that female superintendents were found to have begun their careers as elementary principals. Female role models in leadership positions are far more common in the elementary setting where over 40% of the principals are women, in contrast to 10% in the high school, where secondary principals most often begin their careers (Heller et al., 1991).

Within most school systems, faculties tend to divide into single-sex groups. Administrators, generally men, tend to link with other male groups often excluding women from this informal network (Wheatley, 1979). Recruitment and selection for administrative positions often takes place through this informal network, thus limiting women even more from acquiring positions of leadership within schools. However, McDade and Drake (1982) found that about one half of the administrators in their study had been hired from within the district.

Schmuck (1986) noted differences in most women’s networking systems from those of men’s. While the men’s network is unconscious, informal, and private,

women have consciously duplicated an unconscious process, formally constructed an informal association and publicly operated a private system. Women growing up do not absorb the male lesson that they need one another. For women to network they must consciously acknowledge that (1) 'I am a woman,' and (2) 'I am a woman who must connect myself to other women.' (p. 61)

In contrast, she found some women who have reached the top believe their femininity has made no difference. This group of successful aspirants is disassociated from women’s interests and networks, claiming no
need for a female association. These women have broken through and pay homage to the "Old Boys Club" for their status positions.

The value of networking has been established as a factor in position attainment; however, women appear not to have utilized such networks effectively. If networks have been found to work for men, one might speculate that networking is a factor in position attainment. The relationship between networking and level of public school leadership is an area for exploration in this study.

There is legal recourse available for women in sex discrimination cases. This legislation has been the subject of studies in relation to the hiring of women for administrative positions. Legislation enacted in 1972 with the passage of Title IX of the Educational Amendments (cited in Marshall, 1984) prohibits sex discrimination in hiring and promotion of women. Schools that discriminate against women in hiring are to have federal funds withheld from them. Marshall (1984) reported that enforcement is weak and most school administrators assume that they will not lose federal funds for noncompliance. Thus, these efforts in legislation have done little to advance the careers of women seeking these positions as seen by the imbalance of male and females holding key leadership positions.

Porter, Geis, and Jennings (1983) suggested that school personnel do not discriminate consciously in their hiring practices. Shakeshaft (1989) found that although discrimination exists in selection of administrators, many women will deny they have been discriminated against as a survival mechanism.
This legislation has had little influence on the numbers of women hired to fill key administrative positions of the public school. The barriers to attainment reported 20 years ago appear to be similar to those being reported today (N. T. Mertz & McNeely, 1988).

Several barriers have been identified in the literature than women face in their attainment of educational administrative positions. Biklen and Brannigan (1980) found sex discrimination to be the most important barrier related to women's attainment of public school leadership positions. Administrators are drawn from a population of teachers that is over 50% female, yet only 10% of these attain secondary principalships and under 5% attain superintendencies (Heller et al., 1991).

Although there is no clear explanation why women are underrepresented in administrative positions, research on hiring practices sheds some light. People in charge of hiring and promotions make decisions to include others with whom they most closely identify. In that the majority of current administrators are white males, the choice is generally for white males in leadership openings (Kanter, 1977; Lovelady-Dawson, 1980).

Women who seek educational administrative positions are still viewed as attempting to enter fields traditionally held and reserved for men. By going against cultural standards, a woman has additional pressure. She is faced with fighting these prevailing attitudes while attempting to preserve her femininity when this type of work is seen as masculine. The woman who enters the role of administrator must develop strategies to assume this position (Biklen & Brannigan, 1980). Often this is manifested in assertive and competitive behavior in the
interview process. Maccoby and Jacklin (1974) have found that the male role traits are those commonly accepted characteristics of leaders. A woman in pursuit of a leadership position is forced to project traits associated with males if she wants to be selected for an administrative position. This ideology of patriarchy which results in an androcentric society explains why men, more often than women, hold the key leadership positions in school and society (Shakeshaft, 1989). Assertiveness and competitiveness appear to be valued qualities in the interview process. The relationship between these factors and attainment of public school leadership position requires a closer look. Does a woman who has attained the superintendency perceive assertiveness and competitiveness differently from a secondary principal?

Bonuso and Shakeshaft (cited in Shakeshaft, 1989), in their study to document discrimination in the evaluation of resumes for administrative positions, found no difference in the ratings of males and females. Because these findings were inconsistent with studies done by Fleming and Skimund in the 1970s, they conducted a follow-up on their study. They wanted to determine if females were being hired for secondary administrative positions after being rated equally with males on the previous resume study. The respondents in the first study who had hired new secondary principals were contacted to see if women were being selected to fill these positions. Of the 59 who had hired one or more secondary principal, 90.9% of those hired were men and 9.1% were women. In the final round interviews for these positions, 86 were males, while only 4 were females (cited in Shakeshaft, 1989). This suggests a bias still exists although the respondents claimed that few
qualified female applicants were available for administrative positions.

Schmuck's (cited in Biklen & Brannigan, 1980) interviews with males regarding the hiring of women administrators demonstrates a common perception:

Screening committees . . . want demonstrated competence and they measure it by winning football teams. They want somebody who can work with the public and who the public knows and so again it's the winning football coach. Everybody ignores the long lists of criteria and chooses on the basis of winning football teams. The deck is stacked against women. (p. 12)

In a 1981 American Association of School Administrators (AASA, 1982b) survey of superintendents and school board presidents, 94% of the male superintendents, 98% of the female superintendents, 90% of the male school board presidents, and 100% of the female board presidents strongly agreed that women and men should have an equal chance to be in management training programs. This conflicts, however, with attitudes toward the holding of leadership positions, where 15% of the male superintendents and 25% of the male school board presidents still believe a woman in a leadership role is unacceptable.

Perceptions of sex discrimination as a barrier may well affect a woman's reaching her full potential in the field of public school administration. This issue is a delimiting factor as it relates to position attainment is an area for further study.

In spite of the barriers known to exist, a population of women have overcome them to attain administrative positions. The women who have been successful have utilized the factors in their favor to achieve positions held by a relatively small number of women.
Frasher and Frasher (1979) reported on seven separate studies related to the effectiveness of women as administrators. In studies over a 20-year period, that compared actual administrative performance, administrator's self-reporting, superior's ratings, and subordinate's ratings, there have been either no sex differences as related to effectiveness as administrators, or women have received higher ratings. Women were perceived in attitudinal studies as more capable in areas that involved student, staff, and parent relations. With the higher selectivity in the hiring process for women principals, these data may suggest, according to Biklen and Brannigan (1980), that to attain the position, women have to be superior to their male counterparts, or that through greater striving in the process of going up the career ladder, only the best women succeed.

In 12 studies conducted between 1962 and 1979, reviewed by Lovelady-Dawson (1980), women principals in all areas were found to be equal to men in leadership and administrative capabilities in studies of ratings by supervisors and subordinates, and higher in two other studies.

In meta-analyses of 12 dissertations examining sex differences for all levels of school administration on the Leadership Behavior Description Questionnaire-Form XII, no differences were found between males and females in the areas of representation, demand reconciliation, tolerance of uncertainty, persuasiveness, initiation of structure, tolerance of freedom, role assumption, consideration, production emphasis, predictive accuracy, integration, and superior orientation (Shakeshaft, 1989).

The factors identified throughout the literature related to a woman's career path indicate a number of areas with conflicting
findings. The issues of role models, mentorships, networking, overcoming sex role stereotyping, and perceptions of discrimination are areas in need of further study. The literature reviewed on these factors guides the investigation into answering the third broad question of the relationship between these career-path factors and the level of public leadership attained.

Underrepresentation Myths and Generalizations

A number of generalizations have evolved throughout the years in an attempt to explain the underrepresentation of women in leadership positions in all areas of society, including education. These myths, whether unfounded or not, become accepted as truths. The reasons for underrepresentation are explained as lack of achievement motivation, lack of same-sex role models, sex discrimination, sex-role conflict, lack of decision-making skills, and fear of success. The degree to which a woman believes these generalizations may well determine her success in attaining a public school leadership position.

Research on women in administration over the years has attempted to explain the relatively low numbers in terms of achievement motivation. Much of this literature suggests women lack the drive necessary to attain positions of leadership. The definition of this term comes from work done in 1953 by McClelland, Atkinson, Clark, and Lowell. They have defined achievement motivation as a disposition to seek success in a situation where standards of excellence are applied. They found that women will aspire to achieve if their goal is socially acceptable and significant people in their lives approve of their
achievement.

Adkison (1981) attributed the low numbers of women in administration to a lack of ambition that has developed through years of sex-role stereotyping and socialization as well as organizational structures that exclude women from leadership positions. She found this low aspiration has roots in the home and is reinforced in school and society. Eccles (1987) found that the expectations for success influence occupational choice and that lower expectations deter women from considering male dominated occupations.

Frieze, Parsons, Johnson, Ruble, and Zellman (1978) stated that women should not be considered as a homogeneous group given the wide variations in achievement motivation for males, which is probably also true for women. This researcher observed that professional women are hard workers and are highly motivated to succeed. They also perform at a high level, often without the support needed for achievement.

In a study of women pursuing their first principalship, Edson (1987) found a group who were ambitious and assertive in contrast to the sex-role stereotype. The aspirants were either certified or involved in training for certification. In addition to advancing their careers and furthering their education they continued to maintain their families. The women in Edson’s study cited the need for changes in their careers and a need for challenge to further personal growth. These findings raise issues for principals who have been found to stay in their positions. Lack of achievement motivation has been offered as a reason why so few women attain key public school leadership positions. The extent to which one believes this explanation may be related to their level of
position attainment. Will superintendents who have attained the higher level of administration differ from secondary principals in their perception of this generalization?

Gaertner (1981) found that personal career aspirations, educational level, and work experience are critical to the attainment of key leadership positions for women. Kanter (1977) developed a model that proposes opportunity, power, and representation are crucial to attainment of top positions in organizations. Opportunity is being in a position where one can be noticed by those in power in an organization, while power is the ability to gather and use resources to get a job done. Relative representation refers to the individual being a part of the "in" group, thereby increasing chances to attain positions when they become available. This theory suggests that one may access the principalship or superintendency through interaction of both individual behavior and organizational structure.

Although women who attain administrative positions often attribute their success to their own initiative, intelligence, and hard work, there are others qualified for these positions who consider the price of an administrative position is too high to pay (Nixon, 1987). Given these explanations, another body of research supports the fear-of-success concept in the attempt to define the lack of women in public school administration.

Considerable research on the achievement of women focuses on the concept of fear-of-success. Horner (1972) introduced the construct in an attempt to understand women's achievement motivation, conducting her original study in 1965, with 89 women and 88 men at the
University of Michigan. Undergraduate psychology students were asked to complete a story from a cue regarding a woman in a successful situation. Results of this study suggested that in competitive situations, success-seeking women of high ability become anxious about being successful or have a motive to avoid success. She believed that the fear was related to anticipation of negative consequences of succeeding, such as social rejection or disapproval.

More current research by Paludi and Fankell-Hauser (1986) found that fear of success was not an issue as much as the fear of failing to achieve a goal. Subjects in their study of women's achievement striving also questioned whether or not their achievements were worthwhile for themselves or for their families. These researchers suggest the fear-of-success explanation of women's achievement striving be abandoned as there is little evidence to support the assertion. In view of conflicting data on the fear of success factor, the issue invites more study as it relates to the level of position attainment for women. The fear-of-success studies have focused on reasons why women are not in administration or have not moved up the line in administration, while others have attempted to identify other myths and generalizations that have served as deterrents to women in achieving key leadership positions in the public school.

In a study that involved 266 female secondary school principals throughout the United States by Fansher and Buxton (1984), 10 myths concerning the ability of women to function as principals were reported. Women cannot discipline, they are too emotional, they are too weak physically, males resent working for females, females cannot handle the
pressure of the position, females are intellectually inferior, the principalship is a field for males, family responsibilities take priority for time, females cannot handle objective decisions, and cannot work for other females.

Reasons for the underrepresentation of women in the role of principal reported by Fishel and Pottker (1974) are: There are inadequate numbers of trained women, women have too many breaks in their careers, women are not as effective as men in administration, there is a need for more males in what many regard as a field dominated by females, the public does not want females in administration, both sexes prefer to work under male principals, and women simply do not want to be administrators. Women are still viewed as either not aspiring to administrative positions or having low aspirations. They are seen to lack leadership skills. Although these myths have been dispelled by research, they are still prevalent explanations for women's underrepresentation in leadership roles. The degree to which superintendents and secondary principals perceive these myths to be true may shed light upon the factors seen as facilitative in role attainment.

Loomis and Wild (cited in Weber, Feldman, & Poling, 1981) suggested the educational system in the United States continues to be structured like a traditional home where the man is the authority figure and the woman is the nurturer. The male role is defined by traits of dominance, achievement, autonomy, and aggression, while the female role is depicted as emotional, passive, and timid. Women are described as overly emotional, lacking in task orientation, and lacking independence and autonomy.
According to Marshall (1985b), the training of administrators has roots in the classroom because public school leaders often begin their careers as teachers. The teaching career, historically, has been viewed as acceptable for women, while men in the field are more often encouraged to move into management and leadership positions. Women who aspire to these positions deviate from a pattern in our society of women's roles. Nieva and Gutek (1981) indicated that "traditionally, women are seen as not possessing the necessary attributes of leadership. They are believed to be compliant, submissive, emotional, and to have great difficulty in making choices" (p. 83). However, current researchers have found that behaviors in the past that may have been rejected as female behaviors, are considered to be appropriate and effective leadership behaviors of today. Women who exhibit participative or more democratic styles of leadership are judged favorably. In view of the changes in leadership styles that support a transformational approach, women may be more naturally suited for the new leadership role (Astin & Leland, 1991).

A majority of male superintendents and school board presidents still believe that pregnancy and an administrative position are incompatible and that women who stay at home with their children are better mothers than women who work outside the home (Shakeshaft, 1989). A woman, then, often has to function effectively in many roles, as well as face the cultural barriers that still stand in the way of competent women who aspire to be leaders.

Women continue to be in conflict with sex-role stereotyping as they are expected to maintain family and home responsibilities. The
woman administrator often then falls into one of three categories: She does not have children, her children are grown, or she has a full-time housekeeper. Home and family responsibilities are seen as barriers because the woman administrator must juggle all of her tasks and then contend with male school board presidents and superintendents who believe a woman is unable to manage and it is inappropriate for her to try (Shakeshaft, 1989). If society still perceives that women who choose to lead are in role conflict, does this generalization act as a barrier for women in attaining public school leadership positions?

Schmuck (1975) focused her work on role models and networking. She found that women who know other women in administrative roles have found them to be a positive influence in their own aspirations. Few women are in these positions to act as mentors or sponsors, however, and men and women are unaccustomed to working together as supportive colleagues (Marshall, 1985a). Women tend to recognize the value of networking, yet appear reluctant to establish networks. The extent to which women perceive they are actually involved in networking is an area related to position attainment that indicates a need for additional investigation.

Women who seek roles traditionally held by men are confronted with these myths and generalizations when they choose to enter the field of public school administration. The explanations for women being underrepresented may well be related to attainment when women believe these myths to be true.
Summary

The final 10 years of the 20th century are purported to be the decade of the woman in all areas of leadership. Although the women's movement made people aware of the underrepresentation of women in public school administrative positions, few gains were made during this time. In the 1980s the percentage of women in public school administration was lower than it was in 1905. For nearly 100 years the picture has remained the same (Shakeshaft, 1989).

The variables of personal backgrounds, educational backgrounds and training, achievement motivation, fear of success, sex discrimination, sex-role stereotyping, role models, networking, and interpersonal and communication skills have all been explored in relation to the attainment of administrative positions for women. Much of this research has focused on the explanation for underrepresentation by identifying barriers rather than defining the factors that facilitate the attainment of an administrative position.

With the myriad of obstacles and problems uncovered, the question still remains of the women in positions of public school leadership: How do they get there? Are these factors that facilitate attainment of the role of secondary principal and role of superintendent different? Much of the literature reviewed in relation to women in educational leadership centers on the female leader collectively. Studied as a minority in educational leadership, commonality in accessing these roles has been the focus rather than investigation of possible differences in access. If failure to reach one's potential is viewed as a problem for the
high-achieving woman, what are the factors that separate those who stay in the principalship while other women advance to the superintendency, thus reaching their full leadership potential?

After reviewing the literature and observing the variables researchers have found to explain the attainment of public school administrative positions, four broad questions emerge. These form the basis of this investigation which is to determine differences in perceptions of the factors that have facilitated attainment.

The first question to be explored is the relationship between the perceptions of personal background factors and the level of public school leadership position attained. The specific hypotheses proposed to answer this question are the relationships between the perceptions of family support, marital status, age, decision to have children, and the level of public school leadership attained.

The second question for inquiry is the relationship between the perceptions of educational background, training, and professional experience factors and the level of public school leadership position attained. The hypotheses intended to answer this question, as indicated in the literature, are the relationships between advanced degrees, experience, interpersonal skills, and communication skills and the level of public school leadership attained.

A third question proposed for study is the relationship between the perceptions of career path factors and level of public school leadership position attained. Specifically, the hypotheses proposed to answer the question: Are there relationships between perceptions of role models, networking, mentoring, career planning, luck, attitudes toward
sex discrimination, and sex-role stereotyping and the level of public school leadership position attained.

The fourth question to be studied is the relationship between the perceptions of the myths and generalizations that explain the underrepresentation of women in leadership positions and the level of public school leadership attained. In that perceptions of these myths may limit a candidate, attitudes toward sex discrimination, lack of role models, lack of achievement motivation, lack of decision-making skills, sex-role stereotyping, fear of success, and ability to network are explored in relationship to the level of public school leadership attained.

Identified within the literature are multiple factors that appear to be facilitative of women's public school leadership attainment. These factors fall into four categories from which the four main research questions emerged. These four broad questions are outlined in Chapter III with specific hypotheses growing out of the review of the literature in attempt to answer the questions. The methods used in data collection, the population under study, and the procedures utilized in testing are presented in Chapter III. Analysis of data follows in Chapter IV, with a synthesis of the findings presented in Chapter V.
CHAPTER III

METHODOLOGY AND INSTRUMENTATION

The purpose of the study was to explore the relationship between the factors perceived to have contributed to the attainment of public school leadership position by women and the level of administration held. The method of data collection was through questionnaires mailed to the population of female secondary principals and superintendents under study. The Human Subjects Institutional Review Board of Western Michigan University approved the research project under the exempt category in April 1993 (see Appendix C).

In this study, the subjects included female secondary principals and superintendents in the state of Michigan who provided demographic data regarding their personal backgrounds, career information, and responded to a series of statements regarding their perceptions of the factors that have facilitated the attainment of their level of administration. These statements reflect their perceptions of the relationship between their personal backgrounds; educational backgrounds, training, and experience; factors within their career paths; and their perceptions of the myths that explain the underrepresentation of women in educational administration and the level of public school leadership they have attained.

According to Isaac and Michael (1990), survey research has limitations in that only the respondents who are accessible and cooperative
are tapped; they are vulnerable to overrater, underrater bias as some respondents tend to give consistently high or low ratings; and surveys may cause respondents to agree with positive statements. However, to obtain data from these two populations, the most efficient means was by way of survey.

Input from female secondary principals and superintendents has provided insight into the factors that women in these two levels of administration perceive to be influential in the attainment of educational leadership positions in the public school system. The demographic data they have provided present a profile of the respondents participating in this study.

The following broad questions form the basis of this investigation:

1. Will women secondary principals and superintendents cite different perceptions of personal history factors as having been instrumental in attaining the position they hold?

2. Will women secondary principals and superintendents cite different perceptions of educational backgrounds, professional training, and experience as having been instrumental in attaining these positions?

3. Will women secondary principals and superintendents cite different perceptions of factors in career paths as having been instrumental in attaining these positions?

4. Will women secondary principals and superintendents cite different perceptions of the myths and generalizations believed to explain the underrepresentation of women in their positions?

Previous studies that have investigated the factors that have facilitated attainment for women in public school administration have guided
the selection of a survey instrument on which to measure the perceptions of these factors and their influence on the attainment of the secondary school principalship or the superintendency.

Subjects in the Study

The subjects in this study included the population of women, public-school, secondary principals and superintendents in the state of Michigan who are members of the Michigan Association of Secondary Principals and the Michigan Association of School Administrators, respectively. These two levels of administration were chosen to provide a means for contrasting the relationship between self-perceived factors and the level of leadership position attained as well as to determine differences in factors for attaining these respective positions. Data were collected from this population by way of a survey that was mailed in April 1993.

Survey Instrument

Data for this study were collected by a survey questionnaire (see Appendix D). The Hoffman Female Public School Leadership Questionnaire consists of 37 statements to which subjects ranked their responses of agreement on a Likert-type scale from 1-4 (strongly disagree, disagree, agree, and strongly agree). The survey was developed by Arlene Deller Hoffman (1991/1992) for her dissertation from Teachers College, Columbia University. Her letter granting the conditions and permission for use of the survey instrument is found in Appendix F, while explanation of changes to the original survey appear in Appendix E. Her
work, "The Etiology of Woman as Public School Leader: Factors That Facilitate Success," is a descriptive study of the factors that facilitate the attainment of public school leadership positions. She has reported her findings in percentages of subjects' response to each item for superintendents, assistant superintendents, secondary principals, and assistant principals. The elements in her survey were found to align with the purposes intended in this study. With her permission, the questionnaire, designed with four responses to each item of strongly disagree, disagree, agree, and strongly agree, was utilized as a Likert-type scale from 1-4. The 37 items to which the respondents were asked to provide their level of agreement on a 4-point scale, align with each of the four questions to be answered in this study, and test the hypotheses of the study.

At the suggestion of A. D. Hoffman (1991/1992), author of the Hoffman Female Public School Leadership Questionnaire, a question was added to the original demographic inquiries regarding the attendance of a same-sex college. Respondents to her study from the eastern part of the United States who had attended a same-sex college speculated this might be a contributing factor in the attainment of a key leadership position in the public school. Kohlstedt (cited in Biklen & Brannigan, 1980), in an article entitled "Single-Sex Education and Leadership: The Early Years of Simmons College," reported on research done by Tidball at Simmons College. Tidball argued that women's colleges have produced a disproportionate number of women leaders. She found that the advantage of same-sex role models and an environment without male competition provided opportunity for women to attain positions of leadership. Her study followed achievement output for women's college graduates.
over coeducational graduates for a period from 1910 to 1960.

An additional question was added to the demographic information for secondary principals. Data from previous studies demonstrate that a minority of women attain the superintendency in line from the secondary principalship position (Gaertner, 1981). Women who attain the secondary principalship tend to remain in that position. To determine the career goals of secondary principals, this question was posed: "Do you plan to seek a superintendency?"

One group of statements on the survey requests information to determine the relationship between the leadership position and the personal background factors perceived to contribute to the attainment of the position. In the literature are studies that have investigated a number of personal background factors as they relate to the attainment of key public school leadership positions. The variables cited from the literature in Chapter II form the hypotheses for the first broad question of this study. These questionnaire items request perceptions of family support and encouragement in the realization of career goals, marriage decisions in relationship to assuming an administrative position, family responsibilities as they conflict or hinder the attainment of the position, and relocation of family as a factor in the attainment of a position of either secondary principal or superintendent. These questionnaire statements were used to measure the differences between the two populations and test the hypotheses of the study's first broad question.

A second group of statements on the survey addresses the relationship between the leadership position and educational background, training, and experience. The literature identifies a number of education
and experience factors that women in administrative positions cite as facilitative of their attainment. These items include questions dealing with perceptions of the necessity of advanced degrees in relationship to the attainment of an administrative position, experience as educators in preparation for the position, interview-related statements, and the relationship of interpersonal and communication skills to the attainment of the secondary principalship or the superintendency. This group of questionnaire statements was used to measure differences between secondary principals and superintendents and test the hypotheses of the study's second broad question.

The third group of questionnaire statements measures the relationship between factors within the career path and attainment of leadership position. In the literature are identified a number of factors within a career path that women have cited as facilitative of position attainment. This group includes statements pertaining to perceptions of support from other females in leadership, networking with other women who had influence in leadership positions, same-sex role models, barriers to attainment—sex discrimination, sex-role stereotyping, achievement motivation, and fear of success—and the factors which contributed to attainment—education, experience, encouragement, personality traits, and characteristics. This group of questionnaire statements was used to measure differences between the two populations and test the hypotheses of the third broad question of the study.

The fourth group of statements on the questionnaire measures the relationship between the leadership position and the perceptions of the myths and generalizations that explain the underrepresentation of
women in these positions. The literature provides support that these
generalizations are unfounded. However, the degree to which women
perceive them to be true may affect their attainment of an administrative
position within the public school. These questions deal with issues of
sex discrimination, beliefs regarding the hiring or promoting of females
within the school district, lack of same-sex role models, lack of motiva-
tion believed to be a barrier to women seeking administrative position,
lack of aggressive leadership traits believed to be necessary to compete
for positions, sex-role stereotyping, and fear of success. This group of
questionnaire statements was used to measure differences and test the
hypotheses of the study's fourth broad question.

In addition to the 37 statements related to perceptions, the ques-
tionnaire includes a page requesting demographic data. Personal and
professional background data questions include age, marital status,
number of children, occupation of parents, birth order, degrees held,
attendance at same-sex college, number of years in present position,
previous experience, and size of school district presently employed.

Respondents were provided an opportunity to contribute factors
that facilitated their attainment that may have been overlooked in the
survey contents. The final question in the survey asked, "What is the
single, most important factor that contributed to the attainment of your
present position?"

Pilot Study

A. D. Hoffman (1991/1992), author of the survey, piloted the
instrument with two separate samples in other areas of the country.
The questionnaire was piloted first with female public school leaders in New York City and Atlanta, Georgia. The original instrument provided opportunity for respondents to reply to open-ended questions regarding the factors that facilitated their attainment of an administrative position. These responses gave direction for the content of statements included in the redesigned survey that was piloted with female administrators in San Antonio, Texas. In this pilot, respondents were asked to rate their level of agreement with 37 items on the self-perceived factors that facilitated their attainment of public school leadership positions on a scale of disagree strongly, disagree, agree, and agree strongly. Additional pilot study was not conducted in the investigation of Michigan administrators in that Hoffman had found the questionnaire valid and reliable.

Procedures

Names and addresses of all female public school secondary principals and superintendents in the state of Michigan were obtained from the 1992-93 membership lists of the Michigan Association of School Administrators and the Michigan Association of Secondary School Principals. Mailings to this population included the Hoffman Female Public School Leadership Questionnaire, a cover letter explaining the nature of the research with directions for completing the survey, a separate card to return requesting survey results, and a self-addressed return envelope. Each survey was coded for tracking nonrespondents. An attempt was made to obtain responses from all women who currently serve as secondary public school principals and superintendents in the state of Michigan. Principals of alternative, private, or parochial schools were
not included in this study.

In the first mailing, 32 female, public school superintendents, and 62 female, public school secondary principals were contacted. Superintendent response was 69% to the initial request, and 68% of the secondary principals returned the first questionnaire. After a 3-week interval, a second request and duplicate questionnaire were sent to nonrespondents. The second request brought the total of superintendent respondents to 84% and secondary principal respondents to 82%. Due to an error in mailing, one survey was returned from a private school secondary principal. The data from this questionnaire were not included in the analysis as the population under study included only public school secondary principals and superintendents.

Descriptive, demographic data requested from each respondent were tabulated and utilized to develop a profile of the female secondary principal and superintendent who have contributed to this research. These data, descriptive in nature, are presented in Chapter IV. Data from the four broad research questions and the hypotheses proposed to answer each question are presented in Chapter IV, as are the respondents' narrative responses regarding the single factor that facilitated the attainment of their particular level of public school leadership.

Each of the four research questions raised has several hypotheses. These hypotheses are listed below with the questionnaire statements used to measure differences between the two populations in their perceptions of factors that facilitate attainment.
Questions and Hypotheses

Data from the Hoffman Female Public School Leadership Questionnaire responses reflect the subjects' level of agreement (agree/disagree) with 37 statements designed to measure perceptions of female public school principals and superintendents: Perceptions regarding personal history factors, educational background and professional experience, factors within career path, and myths and generalizations pertaining to attainment of level of public school leadership position.

Level of public school leadership is defined for the purpose of this study as the position of public school secondary principal and public school superintendent.

A chi-square test for independent proportions was used to test the hypotheses of this study with an alpha of .05. The Statistical Package for Social Sciences (SPSS) computer program (Norsusis, 1990) was used to carry out the procedure. Listed below are the four research questions of the study with the hypotheses proposed to answer each of the questions. Corresponding survey items are identified as they relate to each hypothesis.

Question 1: Personal Background Factors

The first question was to determine if there were differences in women's self-perceived personal history and background factors that facilitate attainment between the two levels of public school leadership positions. Subjects were asked to rate their level of agreement with eight specific personal background statements on the questionnaire as
they related to the attainment of their position. These statements were used to test the five hypotheses of the first question:

**Hypothesis 1.1.** There is a relationship between the perception of family support and encouragement and level of public school leadership attained.

Questionnaire Statement 16: "My family supported my decision to be a key public school leader."

Questionnaire Statement 22: "My husband/significant other relocated so I could accept a key leadership position."

Questionnaire Statement 42: "Women who are successful in attaining key public school leadership positions have received encouragement from their family as they pursue their goals."

**Hypothesis 1.2.** There is a relationship between the perception that career influenced decision to have or not have children and level of public school leadership attained.

Questionnaire Statement 17: "My career as a public school leader influenced my decision to have or not have children."

**Hypothesis 1.3.** There is a relationship between the perception that career influenced decisions of marital status and level of public school leadership attained.

Questionnaire Statement 18: "My career as a public school leader influenced my decision to marry or not marry or divorce."

**Hypothesis 1.4.** There is a relationship between the perception that age was a factor in attainment of position and level of public school
leadership attained.

Questionnaire Statement 19: "I attained my first key public school leadership position at an age later than most of my male colleagues."

Questionnaire Statement 20: "If answer to above is agree, then my age was an important factor in attaining a leadership position."

Hypothesis 1.5. There is a relationship between the perception that family responsibilities impacted negatively on career and level of public school leadership attained.

Questionnaire Statement 21: "Family responsibilities have impacted negatively on my career."

Question 2: Education, Training, and Experience Factors

The second question was to determine if there were differences in women's self-perceived educational background, training, and experience factors between the two levels of public school administration. Respondents were asked to rate their level of agreement with seven statements on the questionnaire pertaining to educational backgrounds, professional training, and experience as they relate to attainment of their level of public school administration. These statements were used to test the four hypotheses of the second question:

Hypothesis 2.1. There is a relationship between the perception that women who attain positions possess advanced degrees and level of public school leadership attained.
Questionnaire Statement 23: "Women who are successful in attaining key public school leadership positions possess advanced degrees."

Questionnaire Statement 24: "Women are underrepresented in key public school leadership positions because they do not possess the necessary credentials (i.e., degrees, administrative certification)."

**Hypothesis 2.2.** There is a relationship between the perception that experience is a factor in attaining a key public school leadership position and the level of public school leadership attained.

Questionnaire Statement 25: "Women who are successful in attaining key public school leadership positions have more experience than their male counter-parts."

Questionnaire Statement 25: "Women are underrepresented in key public school leadership positions because they lack the experience necessary to fulfill the role expectations of these positions."

Questionnaire Statement 27: "My years as an educator (in a capacity other than key public leader) was an important factor in attaining a key public school leadership role."

**Hypothesis 2.3.** There is a relationship between the perception that women who attain public school leadership positions have above-average interpersonal skills and level of public school leadership attained.

Questionnaire Statement 32: "Women who are successful in attaining key public school leadership positions have above-average interpersonal skills."
Hypothesis 2.4. There is a relationship between the perception that women who attain public school leadership positions have above-average communication skills and level of public school leadership attained.

Questionnaire Statement 33: "Women who are successful in attaining key school leadership positions have above-average communication skills."

**Question 3: Career Path Factors**

The third question was to determine if there were differences in self-perceived factors in career paths between the two levels of public school administration. Respondents were asked to rate their agreement with 15 questionnaire statements pertaining to factors within career paths as they related to attainment of their level of public school administration. These statements were used to test the eight hypotheses of the third question.

Hypothesis 3.1. There is a relationship between the perception that women in public school leadership positions had role models from working mothers and level of public school leadership.

Questionnaire Statement 14: "I would predict that most females in public school leadership roles had mothers who worked outside the home."

Questionnaire Statement 15: "Women whose mothers worked outside the home tend to be more achievement motivated."
Hypothesis 3.2. There is a relationship between the perception that networking with other females assists in career aspirations and level of public school leadership.

Questionnaire Statement 28: "Other females in key public school leadership positions have assisted me in realizing my career aspirations."

Questionnaire Statement 29: "I am committed to helping other females attain key public school leadership positions."

Questionnaire Statement 30: "I believe networking with other female leaders can assist me in fulfilling my career aspirations."

Hypothesis 3.3. There is a relationship between the perception that having a same-sex role model assists in attainment of public school leadership position and level of public school leadership.

Questionnaire Statement 31: "Having a same-sex role model has helped me attain a key public school leadership position."

Hypothesis 3.4. There is a relationship between the perception of career planning and the level of public school leadership.

Questionnaire Statement 34: "I made the decision to seek a key public school leadership position before I entered the field of education."

Hypothesis 3.5. There is a relationship between the perception of luck as a factor in public school leadership position attainment and level of public school leadership attained.

Questionnaire Statement 35: "Being in the right place at the right time is the single most important factor related to my attainment of a key public school leadership position."
**Hypothesis 3.6.** There is a relationship between same-school district employment and level of public school leadership attained.

Questionnaire Statement 36: "I was hired for a key public school leadership position in the school district in which I was already employed in another capacity."

**Hypothesis 3.7.** There is a relationship between the perception of competition and aggressiveness in interview skills and level of public school leadership attained.

Questionnaire Statement 37: "I have competed with other women for key public school leadership positions."

Questionnaire Statement 38: "Interviewers for key public school leadership positions value aggressive candidates."

**Hypothesis 3.8.** There is a relationship between perceptions of sex discrimination and level of public school leadership attained.

Questionnaire Statement 39: "Women who are successful in attaining key public school leadership positions have had experience dealing with sex discrimination."

Questionnaire Statement 40: "I made the decision to seek a public school leadership position knowing it was a male-dominated field."

Questionnaire Statement 41: "Incidents of sex discrimination regarding the attainment of key public school leadership positions can be overcome without seeking legal recourse."

Questionnaire Statement 43: "Women who perform the same tasks/functions as men are frequently given dissimilar titles."
**Question 4: Underrepresentation Myths and Generalization Factors**

The fourth question was to determine if there were differences in the perceptions of the myths that explain the underrepresentation of women in public school administration between secondary principals and superintendents. The respondents were asked to rate their level of agreement with the seven statements pertaining to the myths surrounding the underrepresentation of women in public school administration. These questionnaire statements were used to test the seven hypotheses of the fourth question:

**Hypothesis 4.1.** There is a relationship between the perception that women are underrepresented in public school leadership positions because of sex discrimination and level of public school leadership attained.

Questionnaire Statement 44: "Women are underrepresented in key public school leadership positions because of sex discrimination."

**Hypothesis 4.2.** There is a relationship between the perception that women are underrepresented in public school leadership positions because of the absence of same-sex role models and level of public school leadership attained.

Questionnaire Statement 45: "Women are underrepresented in school leadership positions because of the absence of same-sex role models."
Hypothesis 4.3. There is a relationship between the perception that women are underrepresented in public school leadership positions because they lack the motivation to succeed that men display and the level of public school leadership attained.

Questionnaire Statement 46: "Women are underrepresented in key public school leadership positions because they lack the motivation to succeed that men display."

Hypothesis 4.4. There is a relationship between the perception that women are underrepresented in public school leadership positions because they are lacking in such leadership traits as aggressiveness and the ability to make decisions and level of public school leadership attained.

Questionnaire Statement 47: "Women are underrepresented in key public school leadership positions because they are lacking in such traits as aggressiveness and the ability to make decisions."

Hypothesis 4.5. There is a relationship between the perception that women are underrepresented in public school leadership positions because of sex-role stereotyping and the level of public school leadership attained.

Questionnaire Statement 48: "Women are underrepresented in key public school leadership positions because society holds certain beliefs about the role of women which relegates them to an inferior position to men."
Hypothesis 4.6. There is a relationship between the perception that women are underrepresented in public school leadership positions because they fear success and level of public school leadership attained.

Questionnaire Statement 49: "Women are underrepresented in key public school leadership positions because they fear success."

Hypothesis 4.7. There is a relationship between the perception that women can assist other females in attaining key public school leadership positions and level of public school leadership attained.

Questionnaire Statement 50: "I believe I can assist other females in attaining key public school leadership positions."

Female Administrators' Narrative Responses

As part of data collection, an opportunity was provided for respondents to single out the factor they believed to be most important in facilitating the attainment of their position. Narrative responses to the question, "What is the single most important factor that contributed to the attainment of your present position?" were content analyzed. Krippendorff (1980) claimed that content analysis has evolved into a scientific method that "promises to yield inferences from essentially verbal, symbolic, or communicative data" (p. 20). These responses supplied by superintendents and secondary principals were analyzed to detect differences between the two populations in the context of the four major questions of this study and will be reported in Chapter IV following the presentation of data for the four questions of the study.
Summary

Within this chapter the procedures of the study are outlined. The subjects, instrumentation, and specific hypotheses proposed to answer the four main research questions are presented. In Chapter IV, data from the subjects appear in tables. Demographic data are presented in percentages for the two populations under investigation. Subjects' responses to perceptions of factors are reported in frequency and percentages for each of the hypotheses contained within the four major research questions. Narrative responses offered by the subjects are reported in the context of the four research questions and are presented in a separate section following the analysis of quantitative data from survey statements. A synthesis of the findings from these data is the focus of Chapter V.
CHAPTER IV

PRESENTATION OF DATA

The purpose of this study was to determine the relationship between the factors that female public school administrators perceive have facilitated their attainment and the level of public school leadership position attained. In this chapter, the subjects' demographic data are presented first in the form of percentages. Data gathered from the subjects' perceptions of the factors that facilitated their position attainment as they relate to each hypothesis of the four research questions are presented next. The narrative responses, content analyzed in the context of the four research questions, appear after the analysis of data for the hypotheses of the four questions.

The Hoffman Female Public Leadership Questionnaire (A. D. Hoffman, 1991/1992) was utilized for the collection of data in this study. Data from the 37 responses, in the form of numerical rating of level of agreement with questionnaire items for each of the four questions under investigation, provide a measurement of the perceptions of superintendents and secondary principals of the factors that facilitated their position attainment. The subjects were asked to respond to a Likert-type scale from 1-4 to reflect their level of agreement with each statement, with 4 being strongly agree. The superintendent's level of agreement on items for each of the hypotheses proposed under each of this study's four questions were compared to the level of agreement
with the secondary principal's responses to determine differences in each of the areas under investigation. Data were analyzed using the 4-point scale of responses to self-perceived statements that superintendents and secondary principals provided and were found to be inconclusive. Data were then reanalyzed into categories of agree/disagree.

The questionnaire was mailed to 94 female administrators in the state of Michigan (see Table 1). The rate of return from superintendents was 84%, with 27 out of 32 returning completed surveys. Of the 62 principals contacted, 51 returned their surveys for a percentage of 82. The total return rate of surveys was 83%.

<table>
<thead>
<tr>
<th>Position</th>
<th>Surveys sent</th>
<th>Surveys returned</th>
<th>% returned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superintendent</td>
<td>32</td>
<td>27</td>
<td>84</td>
</tr>
<tr>
<td>Secondary principal</td>
<td>62</td>
<td>51</td>
<td>82</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>78</td>
<td>83</td>
</tr>
</tbody>
</table>

Female, public school superintendents and secondary principals were also asked to provide a response to a narrative question on the survey instrument: "What is the single most important factor that contributed to the attainment of your present position?" Among the superintendents returning the surveys, 93% provided a narrative response to the question as did 84% of the secondary principals. These responses
were as brief as one word, or in some cases lengthy explanations of the factor or factors that each thought to be a key factor in facilitating the position held. Of the superintendents providing narrative responses, 41% restricted their responses to a single factor, as did 39% of the secondary principals; the remainder provided multiple factors to which they credited their success.

Demographic Data of Subjects

Personal History Data

The superintendents and secondary principals in this study supplied demographic data relating to their personal history. They provided age in 10-year categories, marital status, number of children, birth order, and parents' occupations. These responses are presented in percentages for each population to compare the two levels of administration under investigation.

The majority of both groups of administrators are in the age category between 40-49 years (see Table 2). The 10% higher number of superintendents in the age 50-59 category is consistent with findings by Ortiz and Venegas (1978) that age increases as level of administration advances.

The majority of both groups of administrators are married (see Table 2). Fifty-six percent of the superintendents in this study are married, as are 57% of the secondary principals. Superintendents reported a 10% higher divorce rate than secondary principals.
Table 2
Female Administrators' Demographic Profile

<table>
<thead>
<tr>
<th>Age</th>
<th>Superintendents (N = 27)</th>
<th>Secondary principals (N = 51)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-39</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>40-49</td>
<td>56</td>
<td>61</td>
</tr>
<tr>
<td>50-59</td>
<td>37</td>
<td>27</td>
</tr>
<tr>
<td>60+</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Unreported</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Single</td>
<td>11</td>
<td>23</td>
</tr>
<tr>
<td>Married</td>
<td>56</td>
<td>57</td>
</tr>
<tr>
<td>Divorced</td>
<td>26</td>
<td>16</td>
</tr>
<tr>
<td>Widowed</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Number of children</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>None</td>
<td>26</td>
<td>35</td>
</tr>
<tr>
<td>1</td>
<td>22</td>
<td>18</td>
</tr>
<tr>
<td>2</td>
<td>37</td>
<td>29</td>
</tr>
<tr>
<td>3+</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Birth order</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Only child</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>Oldest</td>
<td>30</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Superintendents (N = 27)</td>
<td>Secondary principals (N = 51)</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Birth order</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Youngest</td>
<td>26</td>
<td>18</td>
</tr>
<tr>
<td>Other</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>Unreported</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Fathers' employment</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Blue collar</td>
<td>22</td>
<td>47</td>
</tr>
<tr>
<td>White collar</td>
<td>63</td>
<td>35</td>
</tr>
<tr>
<td>Unreported</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Mothers' employment</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Blue collar</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>White collar</td>
<td>44</td>
<td>31</td>
</tr>
<tr>
<td>Homemaker</td>
<td>29</td>
<td>45</td>
</tr>
<tr>
<td>Unreported</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>Advanced degrees</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>MA/MS</td>
<td>22</td>
<td>69</td>
</tr>
<tr>
<td>Ed. specialist</td>
<td>19</td>
<td>12</td>
</tr>
<tr>
<td>Ed.D.</td>
<td>26</td>
<td>8</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>33</td>
<td>11</td>
</tr>
</tbody>
</table>
In response to the questionnaire item regarding family size, differences are noted between superintendents and secondary principals (see Table 2). Thirty-seven percent of the superintendents in this study reported having two children in contrast to 29% of the principals. Although the majority of both groups reported having one or two children, the percentage of secondary principals who have no children is 9% higher than the superintendents in that category.

Subjects in the study responded to a question regarding birth order, a variable believed to relate to achievement (see Table 2).
Secondary principals reported 11% more in the first-born category, while superintendents have an 8% higher representation in the youngest category.

Subjects provided data regarding their parents' careers and occupations (see Table 2). Analysis of these data reveal that 63% of the superintendents reported their fathers to be in "white-collar" related employment representing a variety of fields including educational administration, teaching, law, and business ownership. This contrasts with 35% of the secondary principals' fathers in white-collar positions. Twenty-two percent of the fathers of superintendents held "blue-collar" positions reported as factory workers, farmers, and tradesmen, while 47% of secondary principal's fathers were in this category. The mothers of superintendents were found to be employed in white-collar positions in 44% of the responses, in contrast to 31% of secondary principals' mothers. The most noticeable difference between the two population was in mothers' roles. Secondary principals reported that 45% of their mothers had been homemakers compared to 29% of superintendents' mothers.

**Educational Background, Training, and Experience Data**

The subjects in this study provided demographic data related to their educational backgrounds, professional training, and experience (see Table 2). In this study the majority of superintendents (59%) hold either an Ed.D. or a Ph.D. This contrasts with the secondary principals responding, with only 19% holding doctorate degrees. In a follow-up question, 30% of the superintendents reported they are working toward
their doctorate degrees. Of the secondary principals working toward advanced degrees, 31% indicated they are seeking their doctorates, while 10% are working toward their education specialist degree or superintendent's certification.

Upon recommendation of Arlene Hoffman, author of the questionnaire used in this study, another item was added to the original instrument. On the personal information page, the administrators were asked whether they attended a same-sex college. Based on responses to her survey conducted in the state of New York, this was a variable that many indicated may be a factor in attaining administrative positions. Of the superintendents responding in Michigan, none had attended a same-sex college. Response from secondary principals revealed only 3 out of 51, or 6%, had attended a same-sex college.

To learn more about the respondents' administrative experience, subjects were asked to report the number of years spent in their present administrative position (see Table 2). A contrast in length of time in position appears in the 7-or-more years category. The superintendents reported only 11%, in contrast to 24% for secondary principals supporting the findings that secondary principals tend to remain in their positions rather than seeking a superintendency.

Secondary principals in this study were asked if they planned to pursue the position of school superintendent. Of the secondary principals reporting, 71% reported they are not interested in this position, 20% claimed to be interested, 1% were undecided, and 8% did not respond to the question. Unsolicited narrative comments in relation to this question were: "Not currently, but have been told that's my
future." Another responded: "I was offered the superintendency, but declined." A respondent who left this question unanswered explained, "Geographic mobility is not easy for a married woman. Most schools expect the whole family to move when accepting a superintendent's position." Another secondary principal who checked yes, added: "Someday, when I'm really looking for adventure." One who responded that she intended to seek a superintendency, added, "If age discrimination doesn't impede my opportunities as sexism did!" One secondary principal punctuated her negative response with double exclamation marks.

The mean years of teaching experience for superintendents was 8.9 years with 20 years being the longest and 3 years the shortest. Superintendents reported 4.3 as the mean years spent as assistant secondary principal, with 26% reporting having held this position. Thirty percent reported career paths that included a secondary high school principalship, 22% an elementary principalship, 30% principalships of unspecified levels, and 22% said they had not held principalship positions before attaining the superintendency. The position of assistant superintendent was held by 30% of the respondents, while 19% had held central office positions. Counselor, consultant, program director, community education director, deputy superintendent, and college instructor were other positions held previous to attaining the superintendency.

The mean years of teaching experience for secondary principals was higher than superintendents at 11.9 years, with 30 years being the longest career and 3 years the shortest. Fifty-five percent reported they
held the position of assistant secondary principal with a mean of 4.7 years in that position, 11 years being the longest span, and 1 year being the shortest. Twelve percent of the secondary principals reported having served as counselors. Community education director, athletic director, curriculum director, deputy coordinator, dean, and consultant were the other positions reported in the career paths of secondary principals.

Respondents in this survey were asked to denote the size of school in which they were currently employed, based on Michigan Athletic Association classification from Class A-D (see Table 2). Differences between superintendents and secondary principals related to the size of school in which they are employed may be observed in these data. Nineteen percent of the superintendents reported they work in Class A schools with an enrollment of 942 or more students in contrast to 37% of the secondary principals who work in Class A schools. Thirty-five percent of the superintendents are employed in the smaller, Class D schools (255 or fewer students) in contrast to 12% of the secondary principals who are employed in smaller schools.

Survey Data From Self-Perceived Factors That Facilitated Position Attainment

Four broad research questions form the basis of this study to determine the relationship between the factors that facilitate attainment of a key public school leadership position and the position level attained.

1. Will women secondary principals and superintendents cite different perceptions of personal history factors as having been instrumental in attaining the position they hold?
2. Will women secondary principals and superintendents cite different perceptions of educational backgrounds, professional training, and experience as having been instrumental in attaining these positions?

3. Will women secondary principals and superintendents cite different perceptions of factors in career paths as having been instrumental in attaining these positions?

4. Will women secondary principals and superintendents cite different perceptions of the myths and generalizations believed to explain the underrepresentation of women in their positions?

Data from the subjects' responses to the self-perceived factors that facilitated attainment recorded on the Hoffman Female Public School Leadership Questionnaire (A. D. Hoffman, 1991/1992) were analyzed. The hypotheses outlined in Chapter III were tested to determine if there were differences in the self-perceived factors that facilitate attainment between female secondary principals and superintendents. A chi-square test for independent proportions was used to test the hypotheses of this study with an alpha of .05. The Statistical Package for Social Sciences (SPSS) computer program was used to carry out the procedure. Analysis of the hypotheses proposed to answer each of the four broad research questions follows.

**Question 1: Personal Background Factors**

The first question of this study was to determine the relationship between women's perceptions of personal history factors and the level of public school leadership position attained. There were five separate hypotheses operationalized within this first question: Is there a
relationship between women's perceptions of personal history factors and the level of public school leadership attained?

Hypothesis 1.1: The first operational hypothesis was that the observed percentage of agreement that family support is a factor in attaining a public school leadership position would be different from the expected percentage for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis to be tested was that the observed percentage of agreement that perceived family support is a factor in attaining a public school leadership position would not be different from the expected percentage for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected in that results are inconclusive in all three of the statements related to family support (see Table 3). Therefore, the hypothesis that there would be a difference in the level of agreement that family support is a factor in the decision to become a public school leader between superintendents and secondary principals was not confirmed.

Hypothesis 1.2: The second operational hypothesis was that the observed percentage of agreement that career as a public school leader influenced subject's decision to have or not have children would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.
Table 3
Percentage of Respondents' Perceived Family Support

<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>f</td>
<td>%</td>
<td>n</td>
<td>f</td>
</tr>
<tr>
<td>Superintendent</td>
<td>25</td>
<td>1</td>
<td>3.7</td>
<td>26</td>
</tr>
<tr>
<td>Secondary principal</td>
<td>51</td>
<td>1</td>
<td>2.0</td>
<td>50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Superintendent</td>
<td>27</td>
<td>1</td>
</tr>
<tr>
<td>Secondary principal</td>
<td>51</td>
<td>3</td>
</tr>
</tbody>
</table>

aChi square = .214, df = 1, p = .64. bChi square = .095, df = 1, p = .757. cChi square = .504; df = 1, p = .477.
The null hypothesis was that the observed percentage of agreement that career as a public school leader influenced subject's decision to have or not have children would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected in that results are inconclusive (see Table 4). Therefore, the hypothesis that there would be a difference in the level of agreement between secondary principals and superintendents that their career influenced their decision to have or not have children was not supported.

Table 4
Percentage of Respondents' Perceived Decision to Have/Not Have Children

<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th>Agree</th>
<th>$\chi^2$ test</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Superintendents</td>
<td>25</td>
<td>23</td>
<td>92.0</td>
<td>2</td>
<td>8.0</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>49</td>
<td>41</td>
<td>83.7</td>
<td>8</td>
<td>16.3</td>
</tr>
</tbody>
</table>

a$df = 1$.

Hypothesis 1.3: The third operational hypothesis was that the observed percentage of agreement that career influenced decisions of marital status would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square
A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that career influenced decisions of marital status and level of public school leadership position attained would not be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected as results are inconclusive (see Table 5). Therefore, the hypothesis that there would be a difference in the level of agreement between secondary principals and superintendents that their career influenced their decision to marry, not marry, or divorce was not supported.

Table 5
Percentage of Respondents' Perceived Decision to Marry/Not Marry/Divorce

<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th>Agree</th>
<th>( \chi^2 ) test(^{a})</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>f</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Superintendents</td>
<td>25</td>
<td>25</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Secondary principals</td>
<td>51</td>
<td>46</td>
<td>90.2</td>
<td>2.62</td>
</tr>
</tbody>
</table>

\(^{a}\text{df} = 1.\)

Hypothesis 1.4: The fourth operational hypothesis was that the observed percentage of agreement that age was a factor in position...
attainment would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that age was a factor in position attainment would not be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was not rejected in that the observed percentage of agreement that age was a factor was not different from the expected percentage of agreement for superintendents and secondary principals (see Table 6). Therefore, the hypothesis that there would be a difference in the level of agreement between secondary principals and superintendents that age was a factor was not supported.

Hypothesis 1.5: The fifth operational hypothesis was that the observed percentage of agreement that family responsibilities impacted negatively on career would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that family responsibilities impacted negatively on career would not be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.
Table 6
Percentage of Respondents' Perceived Age Factor

<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>f</td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>Superintendents</td>
<td>27</td>
<td>17</td>
<td>63.3</td>
<td>10</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>51</td>
<td>21</td>
<td>41.2</td>
<td>30</td>
</tr>
</tbody>
</table>

Chi square = 3.55; df = 1, p = .067.
Chi square = .233; df = 1, p = .632.
The null hypothesis cannot be rejected in that results are inconclusive (see Table 7). Therefore, the hypothesis that there would be a difference in the level of agreement that family responsibilities impacted negatively on their career between secondary principals and superintendents was not supported.

Table 7
Percentage of Respondents' Perceived Family Responsibilities as Negative Impact on Career

<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>f</td>
</tr>
<tr>
<td>Superintendents</td>
<td>26</td>
<td>23</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>51</td>
<td>43</td>
</tr>
</tbody>
</table>

$^a$df = 1.

Question 2: Education, Training, and Experience Factors

The second question of this study was to determine the relationship between women's perceptions of educational background, training, and experience factors and the level of public school leadership position attained. There are four separate hypotheses operationalized within the second question: Is there a relationship between women's perceptions of education, training, and experience factors and the level of public school leadership attained?
Hypothesis 2.1: The first operational hypothesis was that the observed percentage of agreement that women who attain key leadership positions possess advanced degrees would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that women who attain key leadership positions possess advanced degrees would not be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected in that results are inconclusive (see Table 8). Therefore, the hypothesis that there would be a difference in level of agreement that women who attain positions possess advanced degrees between secondary principals and superintendents was not supported.

Hypothesis 2.2: The second operational hypothesis was that the observed percentage of agreement that experience is a factor in attaining key public school leadership positions would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that experience is a factor in attaining key public school leadership positions would not be different from the expected percentage of
<table>
<thead>
<tr>
<th>Position</th>
<th>Women who attain/possess advanced degrees</th>
<th>Underrepresentation due to lack of credentials</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Disagree</td>
<td>Agree</td>
</tr>
<tr>
<td>Superintendents</td>
<td>n</td>
<td>f</td>
</tr>
<tr>
<td>27</td>
<td>1</td>
<td>3.7</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>45</td>
<td>88.2</td>
</tr>
</tbody>
</table>

^aChi square = .187; df = 1, p = .664. ^bChi square = .14; df = 1, p = .70.
agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected in that the observed percentage of agreement that experience is a factor in attaining a key public school leadership position was not different from the expected percentage of agreement for superintendents and secondary principals at the .05 alpha level (see Table 9). Therefore, the hypothesis that there would be a difference in the level of agreement that experience is a factor in position attainment between superintendents and secondary principals is not supported.

Hypothesis 2.3: The third operational hypothesis was that the observed percentage of agreement that women who attain positions have above-average interpersonal skills would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that women who attain positions have above-average interpersonal skills would not be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was rejected in that the observed percentage of agreement that women who attain positions have above-average interpersonal skills was different from the expected percentage of
Table 9
Percentage of Respondents' Perceived Work Experience Factor

<table>
<thead>
<tr>
<th>Position</th>
<th>Women leaders more experienced than male counterparts&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Women lack experience for role expectations&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Disagree</td>
<td>Agree</td>
</tr>
<tr>
<td>Superintendents</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>f</td>
</tr>
<tr>
<td></td>
<td>27</td>
<td>8</td>
</tr>
<tr>
<td>Secondary principals</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>49</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>50</td>
<td>44</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years spent as educator were important to attainment&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position</td>
<td>n</td>
<td>f</td>
</tr>
<tr>
<td>Superintendents</td>
<td>27</td>
<td>4</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>49</td>
<td>10</td>
</tr>
</tbody>
</table>

<sup>a</sup>Chi square = .390; df = 1, p = .532.  
<sup>b</sup>Chi square = .608; df = 1, p = .435.  
<sup>c</sup>Chi square = .316; df = 1, p = .575.
agreement for superintendents and secondary principals (see Table 10). Therefore, the hypothesis that there would be a difference in the level of agreement that women who attain positions have above-average interpersonal skills between secondary principals and superintendents was supported.

Table 10
Percentage of Respondents’ Perceived Interpersonal Skills Factor

<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th>Agree</th>
<th>$\chi^2_{test}$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n  f</td>
<td>%</td>
<td>f   %</td>
<td></td>
</tr>
<tr>
<td>Superintendents</td>
<td>26 3</td>
<td>11.5</td>
<td>23 88.5</td>
<td>6.0</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>50 0</td>
<td>0.0</td>
<td>50 100.0</td>
<td></td>
</tr>
</tbody>
</table>

*$df = 1.$

* $p < .05.$

Hypothesis 2.4: The fourth operational hypothesis was that the observed percentage of agreement that women who attain positions have above-average communication skills would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that women who attain positions have above-average communication skills would not be different from the expected percentage of
agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected as chi square cannot be computed (see Table 11). Therefore, the hypothesis that there would be a difference in the level of agreement that women who attain leadership positions have above-average communication skills between secondary principals and superintendents was not supported.

Table 11
Percentage of Respondents' Perceived Communication Skills Factor

<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>f</td>
</tr>
<tr>
<td>Superintendents</td>
<td>26</td>
<td>0</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>50</td>
<td>0</td>
</tr>
</tbody>
</table>

$^a$Chi square cannot be computed.

Question 3: Career Path Factors

The third question of this study was to determine the relationship between women's perceptions of career path factors and the level of public school leadership attained. There are eight separate hypotheses operationalized within the third question: Is there a relationship between women's perceptions of factors within the career path and the level of public school leadership attained?
Hypothesis 3.1: The first operational hypothesis was that the observed percentage of agreement that women in public school leadership positions had role models from working mothers would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that women in public school leadership positions had role models from working mothers would not be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was rejected in that the observed percentage of agreement that women in public school leadership positions had role models from working mothers was different from the expected percentage of agreement for superintendents and secondary principals as measured by the chi square at the .05 alpha level in both statements related to working mothers as role models (see Table 12). Therefore, the hypothesis that there would be a difference in the level of agreement that women in public school leadership positions had role models from working mothers between secondary principals and superintendents was supported.

Hypothesis 3.2: The third operational hypothesis was that the observed percentage of agreement that networking with other women assisted in career aspiration would be different from the expected percentage of agreement for superintendents and secondary principals. A
<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superintendents</td>
<td>n</td>
<td>f</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>7</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>n</td>
<td>f</td>
</tr>
<tr>
<td></td>
<td>50</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>46.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leaders of working mothers more achievement motivated</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>25</td>
<td>7</td>
<td>28.0</td>
</tr>
<tr>
<td>18</td>
<td>22</td>
<td>72.0</td>
</tr>
</tbody>
</table>

\[\text{Chi square} = 6.08; \text{df} = 1, p = .013^*\]  
\[\text{Chi square} = 4.19; \text{df} = 1, p = .040^*\]
A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that networking with other women assisted in career aspiration would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected in that results are inconclusive (see Table 13). Therefore, the hypothesis that there would be a difference in the level of agreement that networking with other women assisted in career aspiration between superintendents and secondary principals was not supported.

Hypothesis 3.3: The third operational hypothesis was that the observed percentage of agreement that having a same-sex role model assists in position attainment would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that having a same-sex role model assists in position attainment would not be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected in that the observed percentage of agreement that having a same-sex role model assists in role
### Table 13
Percentage of Respondents' Perceived Networking Factor

<table>
<thead>
<tr>
<th>Position</th>
<th>Females assisted respondent&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Respondent committed to networking&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Disagree</td>
<td>Agree</td>
</tr>
<tr>
<td>Superintendents</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>f</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>13</td>
</tr>
<tr>
<td>Secondary principals</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>51</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>51</td>
<td>3</td>
</tr>
</tbody>
</table>

<sup>a</sup>Chi square = 1.66; df = 1, \( p = .683 \).
<sup>b</sup>Chi square = 1.65; df = 1, \( p = .198 \).
attainment was not different from the expected percentage of agreement for superintendents and secondary principals at the .05 alpha level (see Table 14). Therefore, the hypothesis that there would be a difference in the level of agreement that having a same-sex role model assists in role attainment between secondary principals and superintendents was not supported.

Table 14

<table>
<thead>
<tr>
<th>Percentage of Respondents' Perceived Same-Sex Role Model Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Superintendents</td>
</tr>
<tr>
<td>Secondary principals</td>
</tr>
</tbody>
</table>

$^a$df = 1.

Hypothesis 3.4: The fourth operational hypothesis was that the observed percentage of agreement that career planning as a factor would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that career planning as a factor would not be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to
test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected in that results are inconclusive (see Table 15). Therefore, the hypothesis that there would be a difference in the level of agreement that career planning was a factor in position attainment between secondary principals and superintendents was not supported.

Table 15
Percentage of Respondents’ Perceived Career Planning Factor

<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>f</td>
</tr>
<tr>
<td>Superintendents</td>
<td>27</td>
<td>23</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>51</td>
<td>42</td>
</tr>
</tbody>
</table>

\[ \chi^2_{test} = 1. \]

Hypothesis 3.5: The fifth operational hypothesis was that the observed percentage of agreement that luck is the most important factor in position attainment would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that luck is the most important factor in position attainment would not be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent
proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was rejected in that the observed percentage of agreement that luck is the most important factor in position attainment was different from the expected percentage of agreement for superintendents and secondary principals at the .05 alpha level (see Table 16). Therefore, the hypothesis that there would be a difference in the level of agreement between secondary principals and superintendents that luck is the most important factor in position attainment was supported.

Table 16

Percentage of Respondents’ Luck Perceived as Factor

<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n  f   %</td>
<td>f  %</td>
</tr>
<tr>
<td>Superintendents</td>
<td>27 19 70.4</td>
<td>8 29.6</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>51 23 45.1</td>
<td>28 54.9</td>
</tr>
</tbody>
</table>

*a df = 1.
*p < .05.

Hypothesis 3.6: The sixth operational hypothesis was that the observed percentage of agreement that same-school employment as a position attainment factor would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.
The null hypothesis was that the observed percentage of agreement that same-school employment as a position attainment factor would not be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected in that the observed percentage of agreement that same-school employment and position attainment was not different from the expected percentage of agreement for superintendents and secondary principals at the .05 alpha level (see Table 17). Therefore, the hypothesis that there would be a difference in the level of agreement between secondary principals and superintendents that same-school employment was a factor in position attainment was not supported.

Table 17
Percentage of Respondents' Perceived Same-School Employment

<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th>Agree</th>
<th>(\chi^2) test (^{a})</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superintendents</td>
<td>27</td>
<td>10</td>
<td>17</td>
<td>.023</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>51</td>
<td>18</td>
<td>33</td>
<td>.067</td>
</tr>
</tbody>
</table>

\(^{a}\text{df} = 1.\)
Hypothesis 3.7: The seventh operational hypothesis was that the observed percentage of agreement that competition and aggressive interview skills would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that competition and aggressive interview skills would not be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected in that the observed percentage of agreement that competition and aggressive interview skills as factors in position attainment was not different from the expected percentage of agreement between superintendents and secondary principals at the .05 alpha level (see Table 18). Therefore, the hypothesis that there would be a difference in the level of agreement between secondary principals and superintendents that competition and aggressive interview skills were factors in position attainment was not supported.

Hypothesis 3.8: The eighth operational hypothesis was that the observed percentage of agreement with perceptions of sex discrimination would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.
Table 18
Percentage of Respondents' Perceived Competition/Assertive Interview Skills

<table>
<thead>
<tr>
<th>Position</th>
<th>Competed with other females&lt;sup&gt;a&lt;/sup&gt;</th>
<th></th>
<th></th>
<th></th>
<th>Aggressive candidates valued&lt;sup&gt;b&lt;/sup&gt;</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Disagree</td>
<td>Agree</td>
<td>Disagree</td>
<td>Agree</td>
<td>Disagree</td>
<td>Agree</td>
<td></td>
</tr>
<tr>
<td>Superintendents</td>
<td>26</td>
<td>11</td>
<td>42.3</td>
<td>15</td>
<td>57.1</td>
<td>26</td>
<td>10</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>51</td>
<td>18</td>
<td>35.3</td>
<td>33</td>
<td>64.7</td>
<td>50</td>
<td>23</td>
</tr>
</tbody>
</table>

<sup>a</sup> Chi square = .360; df = 1, p = .548.  
<sup>b</sup> Chi square = .359; df = 1, p = .529.
The null hypothesis was that the observed percentage of agreement with perceptions of sex discrimination would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected in that the observed percentage of agreement with perceptions of sex discrimination was not different from the expected percentage of agreement for superintendents and secondary principals as measured by the chi square at the .05 alpha level (see Table 19). Therefore, the hypothesis that there would be a difference in the level of agreement with perceptions of sex discrimination cannot be supported.

Question 4: Underrepresentation Myths and Generalization Factors

The fourth question of this study was to determine the relationship between the perceptions of the myths and generalizations that explain the underrepresentation of women in administration and the level of public school leadership attained. There are seven separate hypotheses operationalized within the fourth question: Is there a relationship between women’s perceptions of the myths and generalizations that explain the underrepresentation of women in administration and the level of public school leadership attained?

Hypothesis 4.1: The first operational hypothesis was that the observed percentage of agreement that women are underrepresented because of sex discrimination would be different from the expected
Table 19
Percentage of Respondents' Perceived Sex Discrimination

<table>
<thead>
<tr>
<th>Position</th>
<th>Respondent experienced sex discrimination</th>
<th>Sought position aware of male dominance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Disagree</td>
<td>Agree</td>
</tr>
<tr>
<td>Superintendents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>26</td>
<td>10</td>
<td>38.5</td>
</tr>
<tr>
<td>Secondary principals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>49</td>
<td>15</td>
<td>30.6</td>
</tr>
<tr>
<td>Legal recourse unnecessary in sex discrimination</td>
<td>Disagree</td>
<td>Agree</td>
</tr>
<tr>
<td>Position</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Superintendents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>26</td>
<td>2</td>
<td>7.7</td>
</tr>
<tr>
<td>Secondary principals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>48</td>
<td>3</td>
<td>6.3</td>
</tr>
</tbody>
</table>

aChi square = .470; df = 1, p = .492. bChi square = .124; df = 1, p = .724. cChi square = .055; df = 1, p = .813. dChi square = 1.01; df = 1, p = .312.
percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that women are underrepresented because of sex discrimination would not be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected in that the observed percentage of agreement that women are underrepresented because of sex discrimination between superintendents and secondary principals was not different from the expected percentage of agreement at the .05 alpha level (see Table 20). Therefore, the hypothesis that there would be a difference in the level of agreement that women are underrepresented because of sex discrimination between secondary principals and superintendents was not supported.

Table 20
Percentage of Respondents' Perceived Underrepresentation Because of Sex Discrimination

<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th>Agree</th>
<th>( \chi^2 \text{ test}^a )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>Superintendents</td>
<td>27</td>
<td>15</td>
<td>55.6</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>47</td>
<td>17</td>
<td>36.2</td>
</tr>
</tbody>
</table>

\(^a\text{df} = 1.\)
Hypothesis 4.2: The second operational hypothesis was that the observed percentage of agreement that women are underrepresented because they lack same-sex role models would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that women are underrepresented because they lack same-sex role models would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was not rejected in that the observed percentage of agreement that women are underrepresented because they lack same-sex role models was not different from the expected percentage of agreement for superintendents and secondary principals at the .05 alpha level (see Table 21). Therefore, the hypothesis that there would be a difference between superintendents and secondary principals in the level of agreement that women are underrepresented because they lack same-sex role models was not supported.

Hypothesis 4.3: The third operational hypothesis was that the observed percentage of agreement that women are underrepresented because they lack motivation that men display would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.
Table 21

Percentage of Respondents' Perceived Underrepresentation
Due to Lack of Same-Sex Role Models

<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th>Agree</th>
<th>( \chi^2 ) test*</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superintendents</td>
<td>26</td>
<td>14</td>
<td>12</td>
<td>.100</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>48</td>
<td>20</td>
<td>28</td>
<td>.500</td>
</tr>
</tbody>
</table>

\[ ^* _{df} = 1. \]

The null hypothesis was that the observed percentage of agreement that women are underrepresented because they lack motivation that men display would not be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected in that results are inconclusive (see Table 22). Therefore, the hypothesis that there would be a difference in the level of agreement that women are underrepresented because they lack motivation that men display between secondary principals and superintendents was not supported.

Hypothesis 4.4: The fourth operational hypothesis was that the observed percentage of agreement that women are underrepresented because they lack aggressive leadership decision-making skills would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions...
Table 22
Perception of Respondents' Perceived Underrepresentation Due to Lack of Motivation

<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th></th>
<th>Agree</th>
<th></th>
<th>( \chi^2 ) test</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>f</td>
<td>%</td>
<td>f</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Superintendents</td>
<td>26</td>
<td>23</td>
<td>88.5</td>
<td>3</td>
<td>11.5</td>
<td>.537</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>50</td>
<td>41</td>
<td>82.0</td>
<td>9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( ^a df = 1. \)

was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that women are underrepresented because they lack aggressive leadership decision-making skills would be different from the expected percentage of agreement for superintendents and secondary principals.

A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected in that results are inconclusive (see Table 23). Therefore, the hypothesis that there would be a difference in the level of agreement between secondary principals and superintendents that women are underrepresented because they lack aggressive leadership decision-making skills was not supported.

Hypothesis 4.5: The fifth operational hypothesis was that the observed percentage of agreement that women are underrepresented because of sex-role stereotyping would be different from the expected percentage of agreement for superintendents and secondary principals.
Table 23

Percentage of Respondents' Perceived Underrepresentation Due to Lack of Aggressive Leadership Skills

<table>
<thead>
<tr>
<th>Position</th>
<th>n</th>
<th>f</th>
<th>%</th>
<th>f</th>
<th>%</th>
<th>$\chi^2$ test</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superintendents</td>
<td>27</td>
<td>25</td>
<td>92.6</td>
<td>2</td>
<td>7.4</td>
<td>.124</td>
<td>.724</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>51</td>
<td>46</td>
<td>90.2</td>
<td>5</td>
<td>9.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$^a$df = 1.

A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that women are underrepresented because of sex-role stereotyping would not be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected in that the observed percentage of agreement that women are underrepresented because of sex-role stereotyping was not different for superintendents and secondary principals from the expected percentage of agreement at the .05 alpha level (see Table 24). Therefore, the hypothesis that there would be a difference in the level of agreement that women are underrepresented because of sex-role stereotyping between secondary principals and superintendents was not supported.
Table 24
Percentage of Respondents' Perceived Underrepresentation Due to Society's Beliefs About Role of Women

<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th>Agree</th>
<th>$\chi^2$ test$^a$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superintendents</td>
<td>27</td>
<td>10</td>
<td>37.0</td>
<td>17</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>51</td>
<td>14</td>
<td>27.5</td>
<td>37</td>
</tr>
</tbody>
</table>

$^a$df = 1.

Hypothesis 4.6: The sixth operational hypothesis was that the observed percentage of agreement that women are underrepresented because they fear success would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that women are underrepresented because they fear success would not be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected in that results are inconclusive (see Table 25). Therefore, the hypothesis that there would be a difference in the level of agreement that women are underrepresented
because they fear success between secondary principals and superintendents was not supported.

Table 25
Percentage of Respondents' Perceived Underrepresentation Due to Fear of Success

<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th>Agree</th>
<th>test^a</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>f</td>
<td>%</td>
<td>f</td>
</tr>
<tr>
<td>Superintendents</td>
<td>27</td>
<td>23</td>
<td>85.2</td>
<td>4</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>50</td>
<td>14</td>
<td>80.0</td>
<td>37</td>
</tr>
</tbody>
</table>

^a df = 1.

Hypothesis 4.7: The seventh operational hypothesis was that the observed percentage of agreement that subjects believe they can assist other females in attaining a school leadership position would be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis was that the observed percentage of agreement that subjects believe they can assist other females in attaining a school leadership position would not be different from the expected percentage of agreement for superintendents and secondary principals. A chi-square test for independent proportions was used to test this hypothesis with an alpha of .05.

The null hypothesis cannot be rejected in that results are
inconclusive (see Table 26). Therefore, the hypothesis that there would be a difference in the level of agreement that subjects believe they can assist other females in attaining a school leadership position was not supported.

Table 26
Percentage of Respondents' Belief in Assisting Other Females in Role Attainment

<table>
<thead>
<tr>
<th>Position</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>f</td>
</tr>
<tr>
<td>Superintendents</td>
<td>27</td>
<td>1</td>
</tr>
<tr>
<td>Secondary principals</td>
<td>51</td>
<td>0</td>
</tr>
</tbody>
</table>

$^a$df = 1.

Administrators' Narrative Comments Data Analysis

The Hoffman Female Public School Leadership Questionnaire (A. D. Hoffman, 1991/1992) provided an opportunity for respondents to offer narrative comments regarding the most important factor that contributed to attainment of a key public school leadership position. The analysis of these comments follow in the context of the four broad research questions.

Personal Background Factors

A content analysis of the narrative comments solicited on the questionnaire revealed that 40% of the superintendents credited factors
related to personal qualities, background, and history for their attainment of a public school administrative position. Perseverance, persistence, determination, and desire were personal qualities that superintendents listed as important factors related to their role attainment. One respondent credited her early environment: "Being raised by parents who never said I couldn’t do this or that because I was a female. Rather I was told that talent and skills are gifts that should be carefully cultivated and utilized. These gifts are responsibilities." Another gave credit to "having a loving, secure, and supportive husband that has encouraged me to fulfill my responsibilities."

Thirty-six percent of secondary principals cited personal background experiences as the most important factor in attaining their positions. Determination, perseverance, desire, drive, belief in self, tenacity, and persistence were the common themes of those crediting personal backgrounds for their success. One principal shared an anecdote that revealed the early support she had received from her spouse in preparing for an administrative position changed after she secured her position.

I never would have anticipated or believed this possible, because I had the full support of my husband and family as I worked toward my present position, but my promotion was a contributing factor in my very recent divorce. My career was on the rise; my husband's was on stall. We were both surprised that this was a factor, figuring we were both enlightened!

Narrative comments related to personal background factors failed to reveal differences between the two groups of administrators. Percentages of responses crediting personal backgrounds as factors facilitating attainment were similar at 40% for superintendents and 36% for principals.
Educational Background, Training, and Experience Factors

In response to the question asking for a single factor that facilitated position attainment, 56% of superintendents credited educational background, training, and experience as important factors in their attainment of the superintendency. Having a record of getting a job done; experience; knowledge of finance; and competent, successful performance in prior administrative positions were named by the respondents as key factors facilitating their attainment of the superintendency. Some commented on their vision for the schools in which they were working. "A vision of success for all students and a desire to be in a position to implement vision." "Organizational and decision-making skills certainly contributed to implementation of vision." The skills gained through experience overlap directly with the personal factors of perseverance, persistence, and hard work. One respondent credited skills along with mobility as a key factor. "Having better skills by far, than other applicants combined with a willingness to go anywhere—to take what I could get, not what I am worth."

Fifty-two percent of the secondary principals mentioned education, training, and certification among the key factors in their attainment of their position. As one principal cited as a key factor: "My successful record in multi-cultural environments coupled with my years as a successful teacher and administrator. I also have a sense of humor which may, in the end, be the most important factor." The principals listed specific skills gained through experience. Skills related to previous experience such as "student orientation—or nurturing skills,"

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interpersonal skills, leadership ability, and communication were also singled out. One principal wrote "My sense of mission—knowing what it is I am here on earth to accomplish—and deliberately reflecting hard work to achieve that goal." As in the responses from superintendents regarding experience and training, these factors interact with the variables of the work ethic, motivation and perseverance, and internal qualities. Although all factors mentioned by both groups are traits of effective leaders, only three superintendents and four secondary principals referred to the term leader or leadership in their response to the question. The importance of successful "track records" and previously demonstrated competence were mentioned among the key factors of successful attainment.

Two principals credited their position attainment to their background and work in school improvement before it was state law. In the state of Michigan, this became a mandated program in 1991 under Public Act 25. Previous to this legislation, schools had become involved on a voluntary basis. Having skills in this area were seen by two administrators as facilitative of their success.

Differences in narrative responses between superintendents and secondary principals related to education, training, and experience were not observed. Although actual level of education differs between the groups, they appear to place similar values on education, training, and experience as factors in position attainment. Fifty-six percent of the superintendents and 52% of the secondary principals credited factors related to education and training as facilitative of their position attainment.
Career Path Factors

In response to the single factor that facilitated position attainment, 24% of the superintendents credited factors within the career path. These factors involve mentorships, networking, overcoming barriers such as sex discrimination, and sex-role stereotyping. As one woman wrote, "Working with wonderful supervisors who kept throwing challenges at me that really helped me to develop vital leadership skills." Only one believed that being in the right place at the right time was a factor. The issue of sex discrimination and hiring practices falls in the area of career-path factors. One comment, submitted by a female superintendent, alluded to overcoming cultural barriers: "Women are not in the leadership positions because it is still thought of as a male position and teachers as female. Whereas, women do make wonderful administrators and men are great early elementary teachers."

Twenty-seven percent of the secondary principals made specific reference to networking, mentoring, and board and community support as factors that facilitated their attainment. Four of the women credited support from a male mentor and three perceived their position acquisition was directly related to the mentoring of other females in administrative positions. In the area of mentoring, one principal responded, "I had the guidance and mentoring of three male administrators because of exiting college at the right time and place... I enjoy mentoring other women in internships and practicums—getting on the job training and feedback is crucial." Another comment on mentoring ties in with networking. "Use a male mentor—along with a female as you need to
understand how they think and what motivates their politics--the positions are all political."

Timing as a factor in attaining the position was credited by two secondary principal respondents. One said, "Being in the right place at the right time, thinking like a man (and not 'poor me' woman--who's going to help me), and doing my homework aggressively when going for an interview." This comment encompassed the issue of overcoming discrimination as well as interview strategies. In contrast, none of the superintendents credited interview skills as significant in gaining their positions.

A secondary principal dispelled the idea of discrimination in her comment:

I firmly believe that many women cry "discrimination" before it happens so that they are ready to chant it aloud if and when it happens. Being from a community with many female leaders, community (mayors, assessors), college/university deans, etc. and public school (more than half female administrators), I do not represent a female who is discriminated against.

This theme is echoed in another response from a principal:

I work very hard and I put in long hours. I never forget that I am a person--a woman; however, I choose to ignore all implications, interactions, which might be considered by many as sexually discriminating. Many people (men and women) don't even know what that means.

It would appear that those who approached the issue of discrimination in their narrative responses claim it was not a barrier to their attainment, or in the case of the second quotation, ignoring the issue worked for this principal in overcoming what previous studies have found to be major barriers for women in administration.

Differences were not observed in narrative comments related to
career-path factors between superintendents and secondary principals. Twenty-four percent of the superintendents and 27% of the secondary principals cited factors related to factors within the career path as facilitative of their roles.

Underrepresentation Myths and Generalization Factors

In response to the degree to which female superintendents and secondary principals believe the myths and generalizations regarding the underrepresentation of women, the narratives overlap with the references to sex discrimination previously cited in the career path factors. The superintendents and principals made little reference to sex discrimination when asked to provide a single factor that facilitated attainment. However, comments regarding perseverance and persistence may be related indirectly to this issue. Possession of such qualities would appear instrumental in dealing with discrimination if recognized as a barrier to attainment. One principal commented that she has chosen to ignore all implications of discrimination.

One superintendent generalized that "many women do not want to work this hard. Many women are still programmed to please men and believe they still need to be taken care of."

Narrative comments of superintendents and secondary principals were not different notably in the context of myths regarding underrepresentation. In that quantitative responses to perceptions of the myths by both groups tended to dispel them, it is unlikely that narrative responses would be made in the context of myths, as they are viewed as barriers rather than factors that facilitate attainment.
Summary

Data from subjects in this study provide a demographic profile of both populations, their commonalities, and differences. The perceptions they hold relative to the attainment of their positions have been analyzed and presented. Data in the form of narrative responses point out the factors perceived to be most facilitative of position attainment. Chapter V focuses on the interpretation of these data in answering the four main research questions.
CHAPTER V

CONCLUSIONS

The purpose of this study was to determine the relationship between the factors female public school administrators perceive have facilitated their attainment and the level of public school leadership position attained. The four questions of this study were to determine the relationship between self-perceived personal history factors and attainment of secondary principal and superintendent positions; to determine the relationship between self-perceived educational backgrounds, professional experience, and training factors and attainment of secondary principal and superintendent positions; to determine the relationship between self-perceived factors within the career path and attainment of secondary principal and superintendent positions; and to determine the relationship between perceptions of myths and generalizations commonly used to explain the underrepresentation of women within the educational administration field and attainment of secondary principal and superintendent positions.

Female Administrators' Demographic Data Findings

Demographic data provided by the two populations in this study point out differences as well as similarities in the area of personal backgrounds reported by both groups. In response to the question of age, the majority of both superintendents and secondary principals were
found to be in the age category of 40-49. This is consistent with the age profile of the population of key female public school leaders as reported in surveys conducted by Ortiz and Venegas (1978), Dopp and Sloan (1986), and Shakeshaft (1989). While the majority are between the age of 40 to 49, a large percentage of superintendents (37%) fall into the age category of 50 to 59. This contrasts with 27% of secondary principals who are in this category. The larger percentage of superintendents in the age category of 50 to 59 is consistent with findings reported by Ortiz and Venegas (1978), who explain that age increases with the level of administrative position held.

The number of married administrators in this study is also similar to findings from previous surveys of public school leaders where a reported 56% are married (Dopp & Sloan, 1986; Shakeshaft, 1989). Administrators in this study report a 57% marriage rate for principals and 56% for superintendents. There is a higher number of single secondary principals, however, at 23% in contrast to 11% single superintendents. The divorce rate is higher among superintendents at 26%, with 16% of the secondary principals reporting divorces. One might speculate that the pressures of the top position within the public school would place added stress on a marriage, thus accounting for a higher divorce rate among superintendents.

Both groups are consistent with survey research findings regarding a family size with 59% of superintendents and 47% of principals reporting one to two children. This is similar to findings in a profile of administrators developed by Gotwalt and Towns (1986). The number of respondents reporting no children appears to be high at 26% for
superintendents and 35% for principals.

The variable of birth order as it relates to achievement has been the focus of research done by Maienza (1986) and Brooks (1976). Maienza reported 60% of the female administrators in her study were first born, supporting a relationship between public school leadership position attainment and birth order. The female administrators in this study do not represent a majority of first born, as only 30% of the superintendents and 41% of the secondary principals fall into this category, failing to establish this as a significant personal factor for either of the groups in attaining a key leadership position.

Achievement as it relates to birth order and influence of parents' occupations on the career choices of daughters has been studied by a number of researchers. Brooks (1976) found that fathers of administrators often were unskilled laborers, followed by skilled laborers, educators, businessmen, and professional men. Sixty-three percent of the fathers of superintendents in this study are reported to be in "white collar" or skilled-labor positions, with 22% in "blue collar" positions. Fathers of secondary principals differ, with only 35% reported in white collar fields and 47% in blue collar. However, as a role model, the mother has been found to have the greater influence on a daughter's motivation in seeking a career.

Nieva and Gutek (1981) found that daughters of working mothers are more likely to be motivated to work than daughters of nonworking mothers. The mothers of superintendents working outside the home is at 56%, in contrast to principals' mothers at 47%. Forty-five percent of the secondary principals' mothers and only 29% of the superintendents'
mothers were homemakers. This difference in role-model influence may be related in that the superintendents in this study had a higher percentage of working mothers, and also have achieved a higher level of administrative position. Although earlier studies found the majority of mothers of administrators to be homemakers (McDade & Drake, 1982), this is true only for the secondary principals in this study.

In the demographic data reported by these two populations, differences were observed in educational backgrounds, the greatest contrast being in advanced degrees. Fifty-nine percent of the superintendents in this study hold doctorate degrees which is consistent with Maienza's (1986) study where she found 60% of the superintendents holding doctoral degrees. However, only 19% of the secondary principals in this study reported doctorates. In response to inquiry regarding the furthering of their education, 30% of the superintendents and 31% of the principals noted they are working toward a doctorate degree.

Secondary principals have had approximately 3 more years of experience in the classroom than superintendents. The path to the superintendency appears to have begun with experience as an elementary school administrator or central office position, thus pointing out demographic differences in the populations. The mean years of teaching experience for superintendents was 8.9 years, while secondary principals were in the classroom for an average of 11.9 years. McDade and Drake (1982) found that women worked under 16 years in the classroom before seeking an administrative position, placing these two groups of administrators below the mean for classroom experience. While only 26% of the superintendents reported having held the position of
assistant principal, 55% of the secondary principals cited this as part of their experience. Although 30% of the superintendents reportedly held elementary principalships, the most common path to the superintendency (Shakeshaft, 1989), none of the secondary principals held this position. Thirty percent of the superintendents did not specify the level of principalship they had held, making contrasts in career paths less specific. The superintendents' paths to their positions differ in length of classroom experience with a mean of 3 fewer years than the principals, and in levels of principalships, most notably the elementary principalship; but report similar experience in other leadership roles mentioned such as counselor, consultant, and community education director.

The two groups of administrators were similar in their response to the question of time spent in their current position, with the majority of respondents having spent 1 to 2 years in the schools they are presently serving. The difference between superintendents and principals is in relation to length of time in current position, with 11% of the superintendents having served from 7 to 11 years in contrast to 24% of secondary principals reporting this length of time. This would support the findings of Gaertner (1981) who found that secondary principals tend to remain in this position without seeking the superintendency.

Secondary principals are more likely to be found in larger, Class A and B schools than superintendents; the majority of which are found in smaller, Class C and D schools. Researchers have found that female administrators are employed in smaller districts within 200 miles of their place of birth (Gotwalt & Towns, 1986). Responses from superintendents in this study confirm this finding with 70% of them serving Class C
and Class D size schools. This contrasts with secondary principal respondents, as only 34% of them work in Class C and Class D schools. While 19% of the superintendents are presently serving in Class A schools, 37% of the principals in this study are found in Class A high schools. This may suggest more opportunities exist for female secondary principals in larger districts than for superintendents.

Another variable thought to be related to attaining a public school leadership position is attendance at a same-sex college. Respondents to this survey conducted in the state of New York reported this as a possible factor. Studies conducted by Tidball between 1910 and 1960 (cited in Biklen & Brannigan, 1980) at Simmons College, offer support for this theory. However, in this study, none of the superintendents, and only 3 of the 51 secondary principals, had attended a same-sex college, failing to offer support for this as a factor in attaining a key public school leadership position.

A question posed for secondary principals regarding their career goals in seeking a superintendency points out a difference in aspirations in these two groups. While the superintendents have sought and attained the highest position within a district, 71% of the secondary principals responded that they were not interested in the position, 20% were interested, and 9% were undecided or did not respond to the question. These numbers support Gaertner's (1981) findings that women in secondary principalships are likely to remain in these positions, and this administrative role is not a likely stepping stone to the superintendency for most women.
Findings for Question 1: Personal Background Factors

The first question was to determine if a relationship existed between self-perceived personal background factors and the level of attainment of a key public school leadership position by women. Data analysis failed to determine differences of note between female public school superintendents and secondary principals in any of the five hypotheses proposed to answer the first research question.

Superintendents (96.3%) and secondary principals (98%) agreed that they had families who supported their decisions to become administrators and encouraged them as they pursued their goals. Differences in responses between groups were not significant in the issue of family encouragement being a factor in position attainment. Superintendents (96.3%) and secondary principals (92.2%) agreed that family support was a factor in attainment. This confirms earlier work done by Dopp and Sloan (1986) and Gotwalt and Towns (1986) finding supportive families a key factor for women in administrative positions.

Although superintendents and secondary principals perceived their families to be supportive, it is interesting that 79.2% of the superintendents and 82.2% of the principals agreed that their husbands or significant others did not relocate to enable them to attain their positions. These two responses appear to be in conflict, considering that position attainment often requires relocation. This lack of mobility of female administrators is reported as a barrier to women who pursue public school leadership positions (Edson, 1988). One secondary principal explained in the demographic section of the questionnaire, regarding her
indecision to seek a superintendency: "Geographic mobility is not easy for a married woman. Most schools expect the whole family to move when accepting a position." However, in another item on the questionnaire, 63% of the superintendents and 64.7% of the secondary principals agreed that they had attained an administrative position in the district in which they had been previously employed, perhaps indicating mobility was not as great an issue for the women in this study.

The decision to have or not have children does not appear to be a factor related to position attainment for either group as differences were insignificant in their general disagreement in response to the statement: "My career as a public school leader influenced my decision to have or not have children." Shakeshaft (1989) found that family responsibilities were often barriers to attainment because the administrator had to juggle a demanding career with responsibilities at home. Role conflict is often an explanation for the absence of women in public school leadership positions which demand great energy and time commitments. Superintendents (88.5%) and secondary principals (84.3%) disagreed that family responsibilities impacted negatively on their careers. According to the demographic profile, 74% of the superintendents in this study and 65% of the principals have children. This factor does not appear to have been a deterrent for attaining either level of public school leadership.

In response to the statement, "My career as a public school leader influenced my decision to marry or not marry or divorce," 100% of the superintendents and 90.2% of the secondary principals responded in the disagreement range for this issue. Although 56% of the superintendents
reportedly are married with 26% reported divorces, and 57% of the secondary principals are married with 16% divorces, neither group perceived this as a variable related to their position attainment.

Differences appeared to be insignificant between secondary principals and superintendents in the hypothesis that age was an important factor in attaining their positions, with the majority of both groups disagreeing. Interestingly, in a related statement, 63.3% of the superintendents disagreed that they attained their first key public school leadership position later than their male colleagues. In secondary principal response to this statement, 41.2% of the principals disagreed.

Findings for the first research question on the perceptions of personal background factors in relation to attaining key public school leadership positions would indicate few differences exist between superintendents and secondary principals.

Findings for Question 2: Education, Training, and Experience Factors

The second question of this study was to determine the relationship between perceptions of educational background, training, and experience factors and the attainment of the level of public school leadership position. Differences were discovered between groups in one of the four hypotheses proposed to answer this question.

Superintendents (96.3%) and secondary principals (94.0%) agreed that holding advanced degrees was an important factor in facilitating the attainment of a key leadership position, while disagreeing that women are underrepresented because they lack credentials. Their own
levels of education and motivation to seek advanced degrees reported in the demographic section of the questionnaire indicated they are aware of the relationship between position attainment and advanced degrees. Adkison (1985) found that formal education was the top-ranked factor for women who aspired to an administrative position.

Superintendents (70.4%) and secondary principals (63.3%) agreed in their perceptions that women who are successful in attaining key public school leadership positions have more years of experience than their male counterparts. This reflects findings by Dopp and Sloan (1986) that women have higher levels of formal preparation than men who hold administrative positions. Maienza (1986) found that women superintendents are older than their male counterparts when attaining their first superintendencies and stay longer in principalships or other middle management positions.

Superintendents (85.2%) and secondary principals (80%) were in agreement in response to the statement that "experience as an educator, other than key public leader" was an important factor in attaining a public school leadership position. With 63% of the superintendents and 64.7% of the principals having been hired within their own districts, experience would appear to be an important factor in promotions to leadership positions.

Differences between superintendents and secondary principals were significant in the hypothesis that women who attain positions have above-average interpersonal skills; 88.5% of the superintendents agreed with this statement, while 100% of secondary principals agreed. Response to this issue by female administrators in the New York study

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done by A. D. Hoffman (1991/1992) are inconsistent with responses by administrators in the Michigan study. Superintendents in New York placed more value on the factor of interpersonal skills than did the principals. Hoffman speculated that as women move up in administration to more politically visible positions, "these leadership traits become more necessary for survival, thus more valued" (p. 138).

The value of having above-average communication skills was confirmed with superintendents (100%) and secondary principals (100%) responding in the agreement range for this factor. These findings are consistent with work done by Sadker and Sadker (1985), who found that well-developed communication and interpersonal skills were factors in facilitating attainment of leadership positions.

Factors within the area of education, training, and experience appear to be highly influential in facilitating the attainment of both the secondary principalship and the superintendency. Although superintendents and principals reflect similar perceptions regarding the importance of these factors, they differ in actual educational background, training, and experience as reported in the demographic section of the questionnaire. Two-thirds of the superintendents in this study have doctorate degrees compared to one-third of the secondary principals. The disparity in advanced degrees between these groups appears to be a factor that separates them. With a greater number of doctorates reported, the women in superintendency roles appear to demonstrate a higher level of achievement motivation in furthering their education and in pursuing higher levels of administration.
Findings for Question 3: Career Path Factors

The third question of this study was to determine the relationship between self-perceived career-path factors and the level of public school leadership position attained. Data analysis revealed differences between superintendents and secondary principals in two of the eight hypotheses.

It was hypothesized that there would be a difference between superintendents and secondary principals in their perceptions regarding the influence of working mothers as role models. The groups were questioned regarding their prediction that females in public school leadership roles had mothers who worked outside the home. Differences in the two populations were noted in that 76% of the superintendents agreed with this statement in contrast to 46% of the secondary principals. Differences were significant at the .05 alpha level in a related statement where 72% of the superintendents and 46% of the secondary principals perceived that women whose mothers worked outside the home are more achievement motivated. Interestingly, as reported in demographic data, 56% of superintendent’s mothers worked outside the home compared to 47% of principal’s mothers. This factor, perhaps, may account for the differences in perceptions of the issue of mother as role model. The body of research that supports influence of mother as a role model for achievement as well as mother’s attitude toward work (Baruch, 1972; Nieva & Gutek, 1981) is confirmed and supported in the responses of these administrators.
Differences between superintendents and secondary principals were insignificant in their perceptions related to networking with other women. Networking within one's career has been found an important factor related to attaining an administrative position in work done by Schmuck (1975). Superintendents (81.5%) and secondary principals (88%) perceived that networking was an important factor in facilitating the attainment of a key leadership position. Superintendents (100%) and secondary principals (94.1%) agreed they are committed to assisting other women in position attainment. Interestingly, only 50% of the superintendents and 45.1% of the secondary principals agreed that they had been assisted by other females in their position attainment. This incongruity confirms the study of Schmuck (1986) where she found that women do not have a conscious networking system, and have been successful in position attainment through paying homage to the "Old Boys Club" for their roles. Differences were not confirmed between the two levels of administration on this issue, and responses suggest that although women recognize the value of networking, only half of each group perceive they were assisted by other females. They do, however, claim to be committed to helping other women attain positions.

Scores for superintendents (81.1%) and secondary principals (74%) are in the disagreement range that having a same-sex role model helped in attaining a key public school leadership position. This is consistent with findings by Covel (1977/1978), who found that role models are important even though in the case of women this sponsorship is limited. Brown and Burt (1990) found that one half of the women in their study were encouraged by a woman role model whom they
admired. Of the women in their study, many had not considered an administrative position before being supervised by one. They found that women serving as role models have a positive influence on women entering positions of educational leadership. Superintendents and secondary principals in this study do not credit same-sex role models as factors facilitating their attainment levels.

Consistent with findings by Dopp and Sloan (1986), that female administrators entered administrative positions not as a conscious career path, but as a result of external influences, the superintendents (85.2%) and secondary principals (82.4%) in this study were in the disagreement range that they had made the decision to seek the position before entering the education field.

Differences were significant in the hypothesis that there was a relationship between the perception of luck as the most important factor and level of administration attained. Among superintendents, only 29.6% agreed that being in the right place at the right time was a factor, in contrast to 54.9% of the secondary principals. Interestingly, in a cross-check with respondents' narrative responses, only one superintendent and two secondary principals credited luck as the single most important factor in their position attainment. Superintendents, it would appear, credit their attainment of the top administrative position in the public schools to more than chance. Responses to this statement by the sample from the state of New York, in a study conducted by A. D. Hoffman (1991/1992), 51% of all female assistant principals, secondary principals, assistant superintendents, and superintendents agreed that being in the right place at the right time was the single most important
factor that facilitated attainment.

Superintendents (63.0%) and secondary principals (64.7%) agreed that they were hired for their position in the school in which they were already employed. This is inconsistent with findings in a national survey on women superintendents in the United States. A summary report published in The American School Superintendency, 1982, prepared by the American Association of School Administrators (1982a), found that women are more likely to be appointed to their position from outside the district. The women in Michigan, as indicated by their responses to the survey, have worked their way up through their own systems. This may account for the large numbers who credited experience and reputation in their narrative responses as key factors in their attainment.

Differences between groups were not observed in the questions regarding competition and aggressive interview skills. Participants in this study were asked whether they had competed with other women for key public school leadership positions. Superintendents (57.1%) and secondary principals (64.7%) agreed they had. This information may suggest that more women are entering the competition for positions of leadership. In an earlier study, McDade and Drake (1982) found the superintendent respondents in their study agreed that among the top five problems was the issue that women are not willing to compete for top level jobs. The myth of underrepresentation because of lack of motivation may be dispelled by the agreement with this statement by respondents. Differences in response to the question of aggressive interview strategies were not noted. Superintendents (61.5%) and secondary
principals (54%) in this study agreed that interviewers for key public school leadership positions value aggressive candidates. This is inconsistent with findings by McDade and Drake (1982), where respondents rated among the top five problems of women entering the administrative field, that aggressiveness is usually viewed as a negative trait in women. However, in another study, Maccoby and Jacklin (1974) found that the male-role traits are those commonly accepted as characteristics of leaders. A woman in pursuit of a leadership position, then, may have more success in projecting traits associated with males.

The issue of sex discrimination has been viewed as a major barrier to overcome for women in studies by Shakeshaft (1989), Ortiz (1982), Schmuck (1975), and Biklen and Brannigan (1980). Superintendents (61.5%) and secondary principals (69.4%) in this study perceived they had experience dealing with sex discrimination. However, in a follow-up statement to this issue, superintendents (92.3%) and secondary principals (93.8%) agreed that incidents of sex discrimination regarding the attainment of key public school leadership positions can be overcome without seeking legal recourse.

The field of educational administration continues to be viewed as a male-oriented field. The sheer paucity of numbers perpetuates this assumption. Statistics for the United States suggest that only 4.8% of superintendents are women with a little larger representation of women in the role of secondary principal at 10% (Heller et al., 1991). Superintendents (92.6%) and secondary principals (90.2%) agreed that they made the decision to seek a key public school leadership position knowing it is a male-oriented field. In another question related to sex
discrimination, superintendents (74.1%) and secondary principals (62.7%) agreed with the statement that women who perform the same tasks/functions as men are frequently given dissimilar titles. This issue of subtle discrimination that respondents agreed does exist in administration was not a factor in deterring their attainment of an administrative position.

The issue of sex discrimination that dominated the literature of the 1960s and 1970s as a major barrier is viewed as less of a problem for women in both levels of administration in this study. The findings in this study suggest a change in attitude toward sex discrimination is occurring, in contrast to its dominating influence on research done during the women's movement. Women representing both levels of public school administration agree it is a male-dominated field, that women are given different titles for doing the same job as a man, that sex discrimination does exist, but that it can be handled without legal recourse. They credit their competitive spirit and aggressiveness in interviews as factors facilitating their success, rather than being held back by barriers of sex discrimination.

Findings for Question 3 regarding career path factors point out differences in the two populations related to mother as role model and the variable of luck. Previous work done on the influence of the mother in achievement motivation and career attainment is further supported in this study. Although little work has been done on the variable of luck perceived as a factor in position attainment, this was a factor valued more by secondary principals than superintendents in this study.
Findings for Question 4: Underrepresentation
Myths and Generalizations

The fourth question of this study was to determine the relationship between perceptions of the myths and generalizations thought to explain the underrepresentation of women in key public school leadership positions and the level of public school administration attained. There were seven hypotheses tested in relation to myths and generalizations. Differences between the two groups of administrators in their perceptions of the generalizations commonly used to explain underrepresentation were not noted.

The superintendents (55.6%) disagreed that women are underrepresented in key leadership positions because of sex discrimination, while secondary principals (36.2%) responded in disagreement. Although not found to be significantly different, superintendents appear less likely to perceive this as an explanation for the underrepresentation of women in administration. This contrasts with work done by Shakeshaft (1989), Ortiz (1982), Schmuck (1975), and Biklen and Brannigan (1980), who found the issue of sex discrimination a major barrier to overcome for women.

In the second hypothesis, that there was a relationship between the level of agreement that women are underrepresented because they lack same-sex role models and leadership position attained, differences were not found to be significant. Superintendents (46.2%) and secondary principals (58.3%) agreed that lack of same-sex role model was an explanation for the underrepresentation of women in school leadership positions. Although not significantly different, secondary principals
disagreed with this statement in greater percentage than did superintendents. This difference may be linked to the career paths of women in administration. In that the largest population of female administrators in the United States is found in the elementary ranks, at 40.9%, superintendents who have been found to begin their administrative careers as elementary principals may have had more role models than those entering the secondary principalship where only 10% of these positions are held by women (Heller et al., 1991; Shakeshaft, 1989).

Another explanation for the lack of women in public school administration has been related to achievement motivation. Both superintendents (88.5%) and secondary principals (82%) in this survey disagreed that women are underrepresented because they lack the motivation to succeed that men display. Studies of female aspirants by Edson (1988) found women to be ambitious and assertive in seeking administrative positions. Adkison (1981) and Eccles (1987) found that lack of motivation is less of a problem than sex-role stereotyping that excludes women from leadership positions.

Superintendents (92.6%) and secondary principals (90.2%) also disagreed that women are underrepresented because they are lacking in such leadership traits as aggressiveness and the ability to make decisions. Fansher and Buxton (1984) reported both of these myths, although unfounded, still persist as reasons for underrepresentation by women. In response to a previous statement, women in both groups agreed that interviewers for administrative positions value aggressive candidates. Studies done in the 1970s focus on society's stereotypical view that a woman's role was that of nurturer, being passive, running a
household as her primary job, and putting her husband's career first (Rodenstein et al., 1977). Estler (1975) introduced the woman's place model that assumes different socialization patterns for men and women account for the absence of women in leadership. However, superintendents (63%) and secondary principals (72.5%) agreed that women are underrepresented in leadership positions because of sex-role stereotyping. Although our society has changed attitudes toward women in the workplace and acceptance of women in a dual role, this explanation for the underrepresentation of women is still considered a barrier to school leadership position attainment.

Another myth thought to explain the underrepresentation was Horner's (1972) fear-of-success theory. She explained that women are not found in key leadership positions because they fear that assuming these roles will result in rejection from significant others in their lives. Superintendents (85.2%) and secondary principals (80%) disagreed with this explanation of underrepresentation. Research following Horner's work has found this is not an issue as much as fear of failing (Paludi & Fankell-Hauser, 1986). Superintendents and secondary principals in this study disagreed with the fear of success explanation for underrepresentation, as well.

Both superintendents (96.3%) and secondary principals (100%) agreed with the perception that they can assist other females in attaining public school leadership positions. In view of related career-path issues where they disagreed that they had been assisted by networking with other females, this response indicated a positive perception of their opportunity to network with other females interested in public school
leadership positions.

The fourth broad research question was to determine differences between the two populations in their perceptions of the myths that explain the underrepresentation in leadership positions because of sex discrimination, lack of same-sex role models, lack of achievement motivation, lack of leadership skills, and fear of success. The findings suggest that superintendents and secondary principals do not differ in their views of these myths that explain the underrepresentation of women in leadership positions.

Findings from Narrative Responses

The narrative comments in response to "What is the single most important factor that contributed to the attainment of your present position?" were content analyzed in the context of the four broad research questions. The findings from these indicate few differences between superintendents and secondary principals in the factors they claim were facilitative of their attainment. Narrative comments tend to align with the four research questions; but in the case of personal background factors, these contributions add the dimension of the personal qualities that a woman would need to attain a key public school leadership position.

Narrative Personal Background Factors

The personal qualities of perseverance, persistence, drive, and determination were credited in the narrative responses of 40% of the superintendents and 36% of the secondary principals as being important
factors in position attainment. These qualities relate to both personal background and achievement motivation factors. One principal wrote in the narrative section that she had received encouragement early in life. She said, "Being raised by parents who never said I couldn't do this or that because I was a female. Rather I was told that talent and skills are gifts that should be carefully cultivated and utilized. These gifts are responsibilities." Differences between the two groups were not observed.

**Narrative Education, Training, and Experience Factors**

In the narrative comments relating to educational background, training, and experience, differences were not observed. Among the superintendents, 56% made reference to educational background, training, and experience as important factors in attaining their position, while 52% of the secondary principals responded that these related items were the factors most responsible for their success. The superintendents cited successful performance in prior administrative positions, reputations for getting the job done, as well as skills in decision making and finance developed in previous positions as key factors in attaining their positions. The secondary principals credited the skills gained in their previous experiences as facilitative of their success such as nurturing skills, interpersonal skills, sense of humor, leadership ability, and communication skills. These factors are consistent with those outlined by Astin and Leland (1991) as descriptive of the female leader who has attained a key position through utilizing her own skills rather than
attempting to adapt to a more masculine approach to leadership in order to compete.

**Narrative Career Path Factors**

Twenty-four percent of the superintendents credited mentoring and role models as important factors. As one superintendent wrote, "Working with wonderful supervisors who kept throwing challenges at me that really helped me to develop vital leadership skills." Twenty-seven percent of the secondary principals made specific reference to networking, mentoring, and board and community support. Four of the principals credited support from a male mentor. Dopp and Sloan (1986) found that women credit male colleagues with being more helpful than female co-workers. With the absence of female role models, the women who have attained their positions have utilized the support of their male colleagues. Narrative comments from both superintendents and secondary principals credited male colleagues as influencing their careers.

In the area of mentoring, one principal responded, "I had the guidance and mentoring of three male administrators because of exiting college at the right time and place. . . . I enjoy mentoring other women in internships and practicums--getting on the job training and feedback is crucial." Another comment on mentoring, given in the form of advice, ties in with networking. "Use a male mentor along with a female as you need to understand how they think and what motivates their politics--the positions are all political." The public school leaders in this study credit the influence of men and women in administration as factors in achieving their career goals.
Although sex discrimination has been found to be a major barrier in earlier literature, respondents in this survey made little mention of discrimination in narrative responses. One principal denounced the issue of discrimination with her comment:

I firmly believe that many women cry "discrimination" before it happens so that they are ready to chant it aloud if and when it happens. Being from a community with many female leaders, community (mayors, assessors), college/university deans, etc., and public school (more than half female administrators), I do not represent a female who is discriminated against.

The responses from women in this study are consistent with findings by A. D. Hoffman (1991/1992) in her New York study. She said:

The ability to confront successfully, incidents of sex discrimination was cited as an avenue to success for the female who aspired to key positions in public school leadership. However, legal recourse was clearly not the path taken by the vast majority of respondents. At the same time, no explanation was given for precisely how one could overcome sex discrimination without seeking legal means. (p. 200)

As one principal said, "I work very hard and I put in long hours. I never forget that I am a person--a woman; however, I choose to ignore all implications, interactions, which might be considered by many as sexually discriminating."

Narrative comments from respondents also reflected decision-making skills as factors facilitating attainment of their position. Having a record of getting a job done; experience; knowledge of finance; and competent, successful performance in prior administrative positions were named by the respondents as key factors facilitating the attainment of the superintendency. As one superintendent noted, "Organizational and decision-making skills certainly contributed to implementation of vision."
The principals in this study listed specific skills gained through experience. Thirty-five percent cited skills related to previous experience such as "student orientation—or nurturing skills," interpersonal skills, leadership ability, and communication were also singled out. One principal wrote: "My sense of mission—knowing what it is I am here on earth to accomplish—and deliberately reflecting hard work to achieve that goal."

Summary

The purpose of this study was to determine the relationship between the factors women perceive have facilitated their attainment and the level of public school leadership position attained. Four questions were proposed to determine if secondary principals and superintendents would cite different perceptions in personal background factors; education, training, and experience factors; career path factors; and perceptions of myths and generalizations thought to explain the underrepresentation of women in key public leadership positions.

Seventy-eight women administrators in the state of Michigan responded to questions about their personal histories and educational backgrounds, training, and experience. They have provided input through their perceptions regarding career path information and attitudes toward the myths and generalizations that explain the underrepresentation of women in key public school leadership positions. As representatives of the minority of women who hold these positions, their contribution in citing the factors they perceive have facilitated their attainment serves to better understand the qualities needed to access these positions. However, being a population representing a minority that
receives the attention of many researchers, one superintendent provided this comment: "I sure hope more women get involved because those of us in leadership positions are 'barraged' by these research projects. This is the sixth one this year!"

The focus of much of the literature reviewed initially to set the direction for this study was on the reasons for underrepresentation and the barriers that women face in seeking positions of educational leadership. Studies that explore factors that facilitate attainment are less prevalent in the literature and generally do not seek to point out differences that may exist between levels of administration. Little explanation is offered as to why some women aspire to the superintendency while others remain in middle management positions, such as the secondary principalship. Although studies confirm that sex discrimination, sex-role stereotyping, women's lack of achievement motivation, and lack of aggressiveness are explanations for underrepresentation of women in leadership positions, this research fails to offer direction to women aspiring to these positions, nor does it explain why some women realize their full potential through attaining the superintendency, while those in secondary principalships appear to remain in this position.

In retrospect, one may review the research design selected to answer the questions proposed in this study. With inconclusive data to offer support that one population is different from another, it would appear that another approach may be explored for further investigation of women in administration. Perhaps an additional inquiry for secondary principals following the question: "Do you plan to seek a superintendency? Why, or why not?" would offer further insight into possible
differences between the two populations.

The superintendents and principals in this study have provided a wealth of data regarding the factors that have facilitated their attainment of key public school leadership positions. In all four of the questions under investigation, women in both levels of administration were found to be more similar than different, indicating that women in administrative positions credit similar factors facilitative to their success. Differences were noted between groups in the value placed on the perception of interpersonal skills as a factor in position attainment. Principals (100%) were found to credit these skills more than superintendents (88.5%). Superintendents perceived the working mother as role model for achievement motivation as a factor that facilitated the attainment of a public school leadership position to a greater degree than did secondary principals. As a population, superintendents (56%) reported in demographic data higher numbers of working mothers than did the secondary principals (47%). Crediting luck as a factor in attaining a position was the other variable that separated the two groups. Secondary principals (54.9%) in contrast to superintendents (29.6%) perceive "being in the right place at the right time" facilitated the attainment of their position. Career path studies have found that secondary principals are unlikely to further pursue the top position in public school administration (Gaertner, 1981). An indication that differences do exist between these two groups is supported by responses from 70% of the principals who reported they do not intend to seek a superintendency. Factors that enable some women to access the superintendency still remain unclear.
Recommendations for Further Study

The purpose of this study was to determine the relationship between the factors that women public school administrators perceive have facilitated the attainment of these positions. Women are underrepresented in key public school leadership positions. Through studying the women who have been successful in attaining these positions, more knowledge has been added to the field. In attempting to discover differences in the factors that have facilitated attainment for secondary principals and superintendents, three areas of study warrant further investigation.

The demographic differences observed between secondary principals and superintendents set the direction for future study. One area that may be investigated is the relationship between role attainment and educational backgrounds. Is achievement motivation in educational preparation the factor that enables a smaller number of women to access the superintendency?

Investigation should continue into the factor of working mother as role model and the relationship to attaining key public school leadership positions. As more women continue to enter the work force, what effect will this have on the number of women who pursue a role in school leadership?

In view of the limited research on the factor of luck as facilitative of attainment, future studies may focus on the value women place on "being in the right place at the right time." The two groups in this study indicated differences in their perception of luck as a factor.
As long as the underrepresentation of women in key public school leadership positions continues to exist, so will the investigation into this enigma. With each study conducted, more knowledge is added to the field. Women who aspire to leadership roles within the public school system may find some of their questions answered by the women public school leaders in Michigan.
APPENDICES
Appendix A

Letter of Transmittal to Female Superintendents and Secondary Principals
April 17, 1993

Dear (Name of Administrator)

This is the "Decade of the Woman," promising more opportunities for women in all fields. In the area of educational leadership however, women are still underrepresented. As a doctoral student in educational leadership at Western Michigan University, and a high school English teacher, I have become interested in this disparity. Research provides several studies which explore the causes of this trend but little work has been done in explaining the factors which contribute to successful attainment of educational leadership positions.

The purpose of my study is to further the research of women in key educational leadership positions. The study will explore the qualities which contribute to the attainment of principal and superintendent roles. Similarities and differences in personal qualities, as well as the external forces which come into play will be investigated. As you represent the minority who have attained one of these positions your responses are invaluable to this study. All women secondary public school principals and superintendents in Michigan are being asked to participate.

I would appreciate your input into this research endeavor. Please complete the enclosed questionnaire and return it to me in the self addressed envelope. Your responses will be held in strictest confidence. Coding on your questionnaire is for tracking nonrespondents only. If you would like the results of this study please return the enclosed card with your questionnaire.

Thanking you in advance.

Sincerely,

Betty LaPointe
Appendix B

Follow-up Letter to Nonrespondents
May 10, 1993

Dear (Name of Administrator)

I mailed you a survey recently, requesting your views on women in educational leadership positions. The information from this questionnaire is invaluable to this study as my intent is to include input from all women secondary principals and superintendents in Michigan.

As an educator, I fully understand your time is valuable and many requests of this nature are made of you. If you have already completed and mailed the survey, please accept my thanks. If you have misplaced your survey I am enclosing another copy.

Thank you for your contribution to this research endeavor.

Sincerely,

Betty LaPointe
Appendix C

Human Subjects Institutional Review Board Approval
Date: April 8, 1993

To: Betty LaPointe

From: M. Michele Burnette, Chair

Re: HSIRB Project Number 93-04-10

This letter will serve as confirmation that your research project entitled "Women in public school administration: Factors that facilitate attainment" has been approved under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the approval application.

You must seek reapproval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: April 8, 1994

xc: Cowden, EL
Appendix D

Questionnaire
Hoffman Female Public School Leadership Questionnaire

I. Personal (Please check the appropriate response.)

1. Age
   - 20-29____
   - 30-39____
   - 40-49____
   - 50-59____
   - 60-69____

2. Marital Status
   - Single___
   - Married___
   - Divorced___
   - Widowed___

3. No. of children
   - 0__
   - 1__
   - 2__
   - 3___
   - other___

4. Occupation of Parents
   - Father__________
   - Mother__________

5. Birth Order
   - Only Child___
   - Oldest___
   - Youngest___
   - Other___

II. Education (Please check all which apply.)

5. Degree currently held
   - BA/BS___
   - MA/MS___
   - Ed. Specialist___
   - Ed D___
   - Ph D___

6. Degree working toward
   - Ed D___
   - Ph D___

7. Attended a same-sex college
   - Yes___
   - No___

III. Experience

8. Present Position
   - Principal___
   - Superintendent___

9. No. of years in present position___

10. Previous experience
    - Teaching___
    - Assistant Principal___
    - Principal___
    - Other_____________

11. No. of years experience in
    - Teaching___
    - Ass't Principal___
    - Principal___
    - Other___

12. Size of School District
    - A___
    - B___
    - C___
    - D___

13. Principals: Do you plan to seek a superintendency?
    - Yes___
    - No___
For this section, please circle the number from the key that best reflects your thinking. Please be sure to respond to all the statements.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.</td>
<td>I would predict that most females in public school leadership roles had mothers who worked outside the home.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15.</td>
<td>Women whose mothers worked outside the home tend to be more achievement motivated.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>16.</td>
<td>My family has supported my decision to be a key public school leader.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>17.</td>
<td>My career as a key public school leader influenced my decision to have or not have children.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>18.</td>
<td>My career as a public school leader influenced my decision to marry or not marry or divorce.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>19.</td>
<td>I attained my first key public school leadership position at a later age than most of my male colleagues.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>20.</td>
<td>If answer to above is A or SA, then my age was an important factor in my attaining a leadership position.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>21.</td>
<td>Family responsibilities have impacted negatively on my career.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>22.</td>
<td>My husband/significant other relocated so that I could accept a key public school leadership position.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>23.</td>
<td>Women who are successful in attaining key public school leadership positions possess advanced degrees.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>24.</td>
<td>Women are underrepresented in key public school leadership positions because they do not possess the necessary credentials (i.e. higher degrees, administrative certification.)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>25.</td>
<td>Women who are successful in attaining key public school leadership positions have more years of experience than their male counterparts.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>26.</td>
<td>Women are underrepresented in key public school leadership positions because they lack the experience necessary to fulfill the role expectations of those positions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>27.</td>
<td>My years of experience as an educator (in a capacity other than key public leader) was an important factor in my attaining a key public school leadership position.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>28.</td>
<td>Other females in key public school leadership positions have assisted me in realizing my career aspirations.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>29.</td>
<td>I am committed to helping other females attain key public school leadership positions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>30.</td>
<td>I believe networking with other female leaders can assist me in fulfilling my career aspirations.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>31.</td>
<td>Having a same-sex role model has helped me attain a key public school leadership position.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>32.</td>
<td>Women who are successful in attaining key school leadership positions have above-average interpersonal skills.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
33. Women who are successful in attaining school leadership positions have above-average communication skills.  
34. I made the decision to seek a key public school leadership position before I entered the field of education.  
35. Being in the right place at the right time is the single most important factor related to my attainment of a key public school leadership position.  
36. I was hired for a key public school leadership position in the school district in which I was already employed in another capacity.  
37. I have competed with other women for a key public school leadership position.  
38. Interviewers for key public school leadership positions value aggressive candidates.  
39. Women who are successful in attaining key public school leadership positions have had experience in dealing with sex discrimination.  
40. I made the decision to seek a key public school leadership position knowing it is a male oriented field.  
41. Incidents of sex discrimination regarding the attainment of key public school leadership positions can be overcome without seeking legal recourse.  
42. Women who are successful in attaining key public school leadership positions have received encouragement from their family as they pursue their goals.  
43. Women who perform the same tasks/functions as men are frequently given dissimilar titles.  
44. Women are underrepresented in key public school leadership positions because of sex discrimination.  
45. Women are underrepresented in school leadership positions because of the absence of same-sex role models.  
46. Women are underrepresented in key public school leadership positions because they lack the motivation to succeed that men display.  
47. Women are underrepresented in key public school leadership positions because they are lacking in such leadership traits as aggressiveness and the ability to make decisions.  
48. Women are underrepresented in key public school leadership positions because society holds certain beliefs about the role of women which relegates them to an inferior position to men.  
49. Women are underrepresented in key public school leadership positions because they fear success.  
50. I believe I can assist other females in attaining key public school leadership positions.  

*What is the single most important factor which contributed to the attainment of your present position?
Appendix E
Explanation of Changes to Original Survey
EXPLANATION OF CHANGES TO ORIGINAL SURVEY

Permission to use the *Hoffman Female Public School Leadership Questionnaire* was granted by Arlene Delloro Hoffman, developer of the survey instrument. She agreed to changes in the questionnaire for use in this study. Listed below are the changes made to her original instrument. Items that differ from the original are marked by an asterisk on the questionnaire.

1. **Demographic questions from the original questionnaire omitted:**
   - Earliest age you attained one of these positions:
     - S, AS, P, AP
   - Marital status when you attained one of these positions:
     - S, AS, P AP
   - No. of children when you attained one of these positions:
     - S, AS, P, AP
   - Job Experience:
     - Teacher, Coordinator, Specialist, Dept. Head, Supervisor, Asst.
     - Superintendent, Superintendent
   - Formal Education and Training: Degree Held:
     - AA, AS, BA, BS, MAT

2. **Demographic questions added:**
   - Size of school district. A, B, C, D
   - Principals: Do you plan to seek a superintendency?

3. **Demographic question added at the suggestion of Dr. Hoffman:**
   - Attended a same-sex college?
4. **Narrative question added:**

   What is the single most important factor which contributed to the attainment of your present position?

5. **Format change for response to scale of 1-4, signifying:**

   1 = Strongly disagree
   2 = Disagree
   3 = Agree
   4 = Strongly Agree
Appendix F

Author’s Permission for Survey Use
I, Arlene Delloro Hoffman, Ed.D., do hereby grant permission to Betty LaPointe to use my questionnaire on key public school leaders for her doctoral dissertation at Western Michigan University. The conditions under which permission is granted are:

1. that I will be credited with having developed this survey by its being referred to as the Hoffman Female Public School Leadership Questionnaire;

2. that an asterisk will be placed next to any and all changes to the questionnaire and a notation explaining that these were changes will be provided; and,

3. that it will be noted that the question on attendance at a same-sex college was suggested by me based on responses to my survey.

February 4, 1993

Arlene Delloro Hoffman, Ed.D.
17 Weyants Lane
Newburgh, NY 12550
Appendix G

Questionnaire Items as They Relate to Research Questions
QUESTIONNAIRE ITEMS AS THEY RELATE TO RESEARCH QUESTIONS

Question One: Personal Background Factors

There is a relationship between the perceptions of personal history factors and the level of public school leadership position attained.

Questionnaire items: 1, 2, 3, 4, 5a
16, 17, 18, 19, 20, 21, 22, 42.

Question Two: Education, Training and Experience Factors

There is a relationship between perceptions of educational backgrounds, training, and experience and the level of public school leadership position attained.

Questionnaire items: 5b, 6, 7, 8, 9, 10, 11, 12, 13
23, 24, 25, 26, 27, 32, 33.

Question Three: Career Path Factors

There is a relationship between the perceptions of career path factors and the level of public school leadership attained.

Questionnaire items: 14, 15, 28, 29, 30, 31, 34, 35, 36,
37, 38, 39, 40, 41, 43,

Question Four: Underrepresentation Myth Factors

There is a relationship between the perceptions of the myths and generalizations believed to explain the underrepresentation of women in their positions and the level of public school leadership attained.

Questionnaire items: 44, 45, 46, 47, 48, 49, 50.
BIBLIOGRAPHY


Gotwalt, N., & Towns, K. (1986). Rare as they are, women at the top can teach us all. The Executive Educator, 8(12), 13-14, 29.


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