Men and women special education administrators: discrepancies between perceptions of the ideal administrator and self-evaluations, in terms of traditional sex-role traits.

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Men and women special education administrators: discrepancies between perceptions of the ideal administrator and self-evaluations, in terms of traditional sex-role traits

A Dissertation Presented

By

M. Denise Holmes

Submitted to the Graduate School of the University of Massachusetts in partial fulfillment of the requirements for the degree of Doctor of Education

September 1983

School of Education
MEN AND WOMEN SPECIAL EDUCATION ADMINISTRATORS:

DISCREPANCIES BETWEEN PERCEPTIONS OF THE IDEAL ADMINISTRATOR

AND SELF-EVALUATIONS, IN TERMS OF TRADITIONAL SEX-ROLE TRAITS

A Dissertation Presented

By

M. Denise Holmes

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This dissertation is dedicated to all my favorite heroes:

* Dr. Sally Ride
* Dr. Sally Rudicel
* Mary Decker
* Chris Cagney and Mary Beth Lacey
* my sister Dianne

This dissertation is also dedicated to two fine men:

* my husband's father, Royce Adams, who died during the year of this dissertation
* my own father, Ted Holmes, who suffered severe brain damage during this same year

I miss having these fine gentlemen share my joy in the completion of this study.
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* Dr. Ena Vasquez-Nuttall, whose rigorous standards, technical assistance, and gentle admonishments were always carefully administered
* Dr. Inge Broverman, who shared with me her fervor and knowledge from over fifteen years of study related to sex-role stereotypes

(These three women - my committee - also have my gratitude and admiration for the professionalism and concern with which they always considered each other’s opinions and expertise.)

* The approximately 300 special education administrators and other professionals who completed the various versions of the survey
* Carolyn O'Grady, my friend and typist
* Clark Adams, my husband, editor, research assistant, gadfly, court jester, and biggest fan.
ABSTRACT

Men and Women Special Education Administrators:
Discrepancies between Perceptions of the Ideal Administrator and Self-Evaluations, in Terms of Traditional Sex-Role Traits
(September 1983)

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M.S.E., University of Pennsylvania
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Directed by: Patricia Gillespie-Silver, Ph.D.

The study examined the relationship between sex-role stereotypes and the perceptions of special education administrators about their work. From the literature, the study presumed that men and women would hold similar perceptions of their administrative role, perceptions more like the male stereotype than the female stereotype. The study also presumed that women would hold different self-evaluations than men, relative to this role.

These premises were tested with five null hypotheses. Perceptions were measured, and discrepancies between "ideal" and self-evaluations were derived, in an ex post facto, non-experimental design. The study adapted the Broverman Sex-Role Questionnaire, designed to measure perceptions about men and women in terms of sex-role stereotypes. Participants included 215 New England special education administrators, responding to surveys mailed to a stratified random sample of 393.

Items in the survey were designated "male-valued" or "female-valued."
valued," according to Broverman's findings that these traits are commonly perceived to be characteristic of, and socially desirable for, men or women.

Three of the five null hypotheses were accepted. The study found that the men and women respondents did not hold different views of their role, and that neither age nor years of experience was a significant factor in self-evaluations.

Two of the null hypotheses were rejected. The respondents reported their professional role more like the male sex role than the female sex role. Also, compared to men, women respondents reported a significantly greater discrepancy between the role and self-evaluations, relative to the male-valued traits.

The findings suggest the following: that perceptions of the role of special education administrator reflect a generalized "male-oriented" school administrator role; that these perceptions are less a reflection of the specific responsibilities of the special education administrator; that women tend toward significantly lower self-evaluations on many traits perceived as most important to this role; that men and women hold similar self-perceptions for female-valued traits associated with the role.

Implications for training and directions for future research in special education administration were discussed.
TABLE OF CONTENTS

DEDICATION ................................................. iv

ACKNOWLEDGMENTS ........................................... v

ABSTRACT ..................................................... vi

Chapter

I. INTRODUCTION ............................................. 1
   Background .............................................. 1
   Statement of the Problem .............................. 9
   Research Questions and Hypotheses .................. 10
   Significance of the Study ......................... 12
   Limitations of the Study ......................... 13

II. REVIEW OF THE LITERATURE ................................. 15
   Role Theory ........................................... 15
   The Role of the Special Education Administrator .. 17
   Sex-Role Theory ...................................... 19
   Sex Differences ...................................... 29
   Role Conflict ........................................ 33
   Women as School Leaders ............................. 36

III. METHODOLOGY ............................................. 39
   Population and Sampling Procedures .............. 39
   Instruments .......................................... 40
   Adaptation of the Broverman Sex-Role
     Questionnaire for the Present Study ............ 43
   Procedures .......................................... 48
   Design .............................................. 48

IV. RESULTS .................................................... 52
   Description of the Participants .................. 52
   Sex-Related Variances among Participants' Salaries .. 62
   Descriptive Statistics of the Variables ........... 65
   Tests of the Research Hypotheses ................. 71
Chapter

V. DISCUSSION ................................................. 82
   Summary .................................................. 82
   Conclusions ............................................. 90
   Implications ............................................ 103

REFERENCES .................................................... 108
REFERENCE NOTES ............................................. 116

Appendix

A. ADAPTED BROVERMAN SEX-ROLE QUESTIONNAIRE .......... 117
B. NOVEMBER 1982 FIELD TEST ............................... 126
C. SURVEY FOR FEASIBILITY INVESTIGATION ................. 133
D. 82 ITEM BROVERMAN SEX-ROLE QUESTIONNAIRE .......... 142
<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Men's and Women's Annual Incomes: Sample Disparities in 1981</td>
</tr>
<tr>
<td>3.</td>
<td>Reliability Data for the 82 Item Broverman Sex-Role Questionnaire</td>
</tr>
<tr>
<td>4.</td>
<td>Sex, Age, and Professional Position of Field Test Respondents</td>
</tr>
<tr>
<td>5.</td>
<td>Reliability Coefficients for the Six Scales of the Adapted Broverman Sex-Role Questionnaire</td>
</tr>
<tr>
<td>6.</td>
<td>Summary Data of Item Selection (Final Version)</td>
</tr>
<tr>
<td>7.</td>
<td>Response Rate by State</td>
</tr>
<tr>
<td>8.</td>
<td>Ages of Men and Women Respondents</td>
</tr>
<tr>
<td>9.</td>
<td>Families (at Home) of Men and Women Respondents</td>
</tr>
<tr>
<td>10.</td>
<td>Highest Degrees of Men and Women Respondents</td>
</tr>
<tr>
<td>11.</td>
<td>Men's and Women's Years of Experience in Special Education Administration</td>
</tr>
<tr>
<td>12.</td>
<td>Certifications Reported by Respondents</td>
</tr>
<tr>
<td>13.</td>
<td>Size of Men's and Women's Administrative Units</td>
</tr>
<tr>
<td>14.</td>
<td>Respondents' Salaries</td>
</tr>
<tr>
<td>15.</td>
<td>Men's and Women's Salaries</td>
</tr>
<tr>
<td>16.</td>
<td>Respondents Earning over $25,000: A Comparison of Men and Women Using Three Separate Variables</td>
</tr>
<tr>
<td>17.</td>
<td>Means and Standard Deviations for Ideal, Self, and Discrepancy Scores</td>
</tr>
<tr>
<td>18.</td>
<td>Rank Order of 20 Highest &quot;Ideal&quot; Variables</td>
</tr>
<tr>
<td>19.</td>
<td>Men's and Women's Means and Standard Deviations for Ideal, Self, and Discrepancy Scores</td>
</tr>
<tr>
<td>20.</td>
<td>Hypothesis 1: Summary of t Test Comparisons for Men's and Women's Mean Ideal Scores</td>
</tr>
<tr>
<td>21.</td>
<td>Hypothesis 2: Summary of t Test of Correlated Samples: Comparison of Mean Ideal Scores for Male-valued and Female-Valued Items</td>
</tr>
<tr>
<td>22.</td>
<td>Hypothesis 3: Summary of t Test Comparisons for Men's and Women's Mean Discrepancy Scores</td>
</tr>
<tr>
<td>23.</td>
<td>Hypothesis 4: Summaries of Two-Way Analyses of Variance: Main Effects of Age and Sex on Mean Discrepancy Scores</td>
</tr>
<tr>
<td>24.</td>
<td>Hypothesis 5: Summaries of Two-Way Analyses of Variance: Main Effects of Administrative Experience and Sex on Mean Discrepancy Scores</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Figure

1. Interaction of Respondents' Sex and Age upon Mean Discrepancy Scores ........................................ 78
2. Interaction of Respondents' Sex and Years of Experience in Special Education Administration upon Mean Discrepancy Scores .................................................. 81
CHAPTER 1

INTRODUCTION

Background

Women are greatly under-represented in the administration of American schools. This reality can be viewed from an historical perspective, as well as within the context of current social forces. Both perspectives are examined here.

Historical perspectives

Beginning in our colonial history, young unmarried women were sought to teach because of their presumed high moral character and the low salaries for which they would work (Vance & Schlechty, 1982). In the five years following the Civil War, the percentage of women teachers increased rapidly to almost 65% (Smith, 1978). In the 1920s, 83% of all teachers were women. By 1957, the percentage had dropped to 73%, and today women still comprise 68% of the public school teachers (Vance & Schlechty, 1982).

The administration of American schools, however, has historically been dominated by men (Scarlette, 1979). Only during two brief periods (the late 1920s and World War II) were large numbers of women gaining administrative positions, and most of these were elementary principalships (Neidig, 1976; Scarlette, 1979). By 1970, the reversal of these trends was so complete that women held only .4% of the superintendencies (Neidig, 1976), 4% of the assistant superintendencies, 3% of the high
school principalships, 4% of the middle and junior high school principalships, and 21% of the elementary principalships (Clement, 1975).

By the late 1970s, women still held under 1% of the superintendencies (Smith, 1978). Data collected throughout the 1970s reveal a mix of minimal gains and losses for the number of women in school administration (Baron, 1976; Clement, 1975; Kelsey, 1978; Smith, 1978), indicating that little progress is being made to ameliorate the under-representation of women.

A broader historical context for this problem is the discrimination women have faced in the teaching profession. Despite their large numbers, women were paid from a lower salary scale, were governed by a more restrictive code of professional behavior (even outside the school building), and were not allowed to teach after marriage—in some systems, even as late as World War II (Clement, 1975; Smith, 1978).

Job Discrimination

Problems for women in employment are not unique to education. The discrimination still faced by women in employment provides a contemporary backdrop for the under-representation of women in school management.

While over half of the adult women in this country are now working (comprising 42% of the labor force), women continue to earn less than 60 cents for every dollar earned by men ("Data Show Women's Pay," 1982). A recent Gallup Poll indicates that 54% of all working women and 50% of all working men perceive that women do not have equal

In a 1977 national survey of full-time workers, the U.S. Bureau of the Census found that women earned significantly less than men at all education levels. The average difference ranged from $3,300 at the lowest education level to nearly $8,000 for college graduates. This same study concluded that sex was a greater influence than race on income: "Women's annual incomes are never more than 65% of those of men at any level of education . . . while black men's annual income is never less than 67% of white men's income" (Sewell, 1981, p. 324).

Similar disparities are revealed in figures reported from a study completed by the Labor Department's Bureau of Labor Statistics, examining annual incomes for 1981 ("Data Show Women's Pay," 1982). A sample of these disparities is presented in Table 1.

One plausible explanation for women's lower salaries (see Table 1, lines A, D, and E) is that men have received more promotions and are therefore on the higher salary scales than women. However, it is unlikely that men teachers have more seniority than their women colleagues (see Table 1, line C). Evidence supports the opposite trend, as discussed previously. Two other hypotheses seem likely explanations for men teachers' comparatively higher salaries. Either men tend to have more years of graduate school training, or more men are hired to work in higher paying systems. Existing data support the likelihood of both factors, but do not explain either (Smith, 1978).
TABLE 1

MEN'S AND WOMEN'S ANNUAL INCOMES: SAMPLE DISPARITIES IN 1981

<table>
<thead>
<tr>
<th>Position</th>
<th>% Held By Women</th>
<th>Women's Average Salary, Compared to Men's</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Bookkeeper</td>
<td>90.6</td>
<td>$98/week less</td>
</tr>
<tr>
<td>B. School principal</td>
<td>(not available)</td>
<td>$157/week less</td>
</tr>
<tr>
<td>C. Elementary teacher</td>
<td>82.2</td>
<td>$68/week less</td>
</tr>
<tr>
<td>D. Health technician</td>
<td>68.5</td>
<td>$51/week less</td>
</tr>
<tr>
<td>E. Computer analyst</td>
<td>(not available)</td>
<td>$126/week less</td>
</tr>
</tbody>
</table>

Pereptuation of traditional sex roles

The continuing difficulties women face in employment point to lingering notions about "women's place." Traditional sex roles justify the discriminatory outcomes described above (Epstein, 1973; Janeway, 1971), despite legislation to outlaw the discriminatory intent (U.S. Department of Labor, 1974; E.E.O.C., Note 1).

Women's limited visibility in positions of school leadership reinforces the traditional notion that women are not meant to be leaders (Rosen & Jerdee, 1974a, 1974b; Schein, 1975). Relatively few women have assumed positions of formal leadership within the various occupations (Bird, 1970; Epstein, 1973), despite researchers' documentation of the competence of women as leaders (Fishel & Pottker, 1975; Morsink, 1970; Smith, 1978), and despite the removal of legal barriers to hiring and promoting women to leadership (E.E.O.C., Note 1).
In recent years our schools have been examined to determine the extent to which specific aspects of the curriculum, staffing, and resource allocations shape children's attitudes about men's and women's roles. Today our schools carry a mandate to teach children to view their own potential and the potential of others more broadly than the traditional scope of these roles (PEER, Note 2). Research demonstrates that children do develop less rigid attitudes about sex roles from their exposure to adults in nontraditional roles in schools—in particular, women in positions of leadership (Lockheed & Harris, 1978).

It is generally acknowledged among educators that an important part of their work is the development of broader opportunities for children beyond rigid, traditional sex roles (American Association of School Administrators, 1975a,b,c). Our society presents ample evidence that individuals can benefit from these opportunities (Bureau of Occupational and Adult Education, 1976). However, virtually all research data from the various biological and social sciences indicate that there are differences between the sexes. Furthermore, there is little agreement on the nature, extent, or impact of these differences (Bryden, 1979; Gornick & Moran, 1971; Janeway, 1971; Mitchell, 1981; Weisstein, 1982). Therefore, the school's mandate to develop new notions about sex roles is hindered by the highly charged confusion that begins in the scientific community and extends to the communities which support our schools. Advocates for differing points of view, from the feminists to the fundamentalists, have the support of some "scientific data" (Weisstein, 1982). Similarly, educators also represent a broad spectrum
of beliefs about sex roles (Krchniak, 1978), and these beliefs are reflected in how the "sex equality" mandate is carried out.

Thus far, the net result for women administrators has been only minimal gains, as discussed earlier. Many studies have tried to account for the lag. The data suggest that a range of factors influences schools' continued placement of disproportionately few women in administrative positions (Estler, 1975; Frasher, Frasher, & Wims, 1982; Howard, 1975; Krchniak, 1978; Marshall, 1979; Paddock, 1979; Pawlitschek, 1976):

1. Women continue to have lower—or less clear—career aspirations, and few women are certified for the higher administrative positions.
2. Women have less confidence in their administrative competence.
3. Women face discriminatory attitudes based on old myths and stereotypes.
4. Women lack access to "old boy networks" that enhance advancement opportunities.
5. Women do not pursue advancement opportunities as aggressively as men do.
6. Women are not as willing to relocate.
7. Women's careers are interrupted or pre-empted by family concerns.

A range of programs have been implemented to address one or more of these factors, focusing upon training the women who hold or seek
administrative positions (Adkison, 1980-1981; Burkhardt, 1979; Carew, 1979; Cooper & Hamill, 1980; Costick, 1978; DiBella, 1979; Lyman & Speizer, 1980; Schmuck, 1979; Timpano & Knight, 1976). These programs generally report outcomes in the direction of their various goals. However, their long-term results cannot yet be known. One speculation is that many women interested in administration have given up education for positions in business, where initial opportunities for women appear more available, as a result of federally-enforced affirmative action programs (Pask, 1976; U.S. Department of Labor, Note 3). If such a trend exists, it promises new opportunities for women outside education, but does not directly address the need to provide women with more opportunities in school administration. Moreover, the potential loss of these women from our schools is a drain of valuable talent to address the work of education.

With greater numbers of women now in business administration, there is evidence that the forces that have excluded women cannot be countered simply by an initial infusion of trained women into administrative positions. Studies suggest that women who experience initial success as business managers tend to assume the attitudes and behaviors of the traditional male stereotype (Hennig, 1971; Schein, 1975). Furthermore, conflicts between the roles of "woman" and "manager" may become more likely as women attain upper-middle management positions (Hennig, 1971).

Perhaps even more troubling is the preliminary conclusion of a 1974 survey that organizations tend to promote women who accept the traditional notion of women's relative lack of managerial competence
(Staines, Tavris, & Jayaratne, 1974). This same survey reports a tendency among professional women to agree with the statement, "Women have only themselves to blame for not doing better in life" (p. 58).

A conclusion drawn in the research on women in business administration is that the traditional notion of management as a "man's field" has not only limited women's access to this field, but has influenced the attitudes of women who become successful managers so that they "think like men"—often to include the biases they hold about women. To resist this influence is to risk professional frustration and personal conflict (Schein, 1975).

While recent sex-role studies indicate some changes (Brooks-Gunn & Fisch, 1980; Kravetz, 1976), the findings generally suggest a continuing belief that women lack or cannot learn stereotypically male traits (Inderlied & Powell, 1979; Massengill & DiMarco, 1979).

Given the perpetuation of women's limited role in school leadership, these studies raise questions about the influence of traditional notions about "school administrators" upon the attitudes of those who seek or fill those positions. To what extent, for example, does a woman believe she must "think like a man" in order to succeed in school administration, and what are the effects of this belief?

**Summary**

A summary of the above discussion may help to focus the various aspects of women's under-representation in school administration:

1. Historically, women have faced discrimination in education careers.
2. Today, despite the legislated principle of equal employment opportunities, women are not treated equally in the work force.

3. In particular, the scarcity of women in management seems to reflect the perpetuation of a sex-role stereotype that only men are good managers.

4. Our attitudes about sex roles are in flux, and our limited understanding of actual sex differences only adds to the resulting confusion.

5. Our schools are mandated to provide children with greater opportunities than those allowed by traditional sex roles.

6. Despite this mandate, our schools have not increased the opportunities for women in administration.

7. There are indications that the extent and tenacity of traditional sex roles may limit access to school administration to women who embrace stereotypically "male" behaviors and attitudes.

**Statement of the Problem**

The special education administrator fills a relatively new role in education. To date, little attention has been paid to shaping this emerging role (Burrello & Sage, 1979). Unless research helps to define the special education administrator's position in terms of the various needs of education, the role will likely default to the borrowed stamp of other educational administrative molds.
It is in the interest of special education to train administrators from the best of its experienced practitioners. Moreover, the educational potential of children is enhanced by the visibility of women in leadership roles. There is no doubt that women have distinguished themselves in special education. Yet men are over-represented in the administrative positions (Kohl & Marro, 1972).

This study has investigated the extent to which the special education administrator role is perceived to be similar to the masculine stereotype, and the differences between men's and women's perceived attainment of role traits. To pursue this investigation, the study adapted the Broverman Sex-Role Questionnaire, an instrument designed to measure stereotypic perceptions of sex roles.

**Research Questions and Hypotheses**

To examine the relationship between perceptions of the male sex role and the special education administrative role, this study sought to explore the following questions:

1. Do men and women special education administrators have a similar view of their professional role?
2. Do men and women special education administrators perceive that their professional role more resembles the male sex role than the female sex role?
3. Do women in this role tend to perceive themselves differently than men do, in comparison to a shared "ideal"?

Five null hypotheses were derived to test these questions (in which the term "administrator" is used to mean "special education
1. Men and women special education administrators will not differ significantly in their perceptions of the ideal administrator (for either male-valued or female-valued items), as measured by an adaptation of the Broverman Sex-Role Questionnaire (BSRQ).

2. Men and women special education administrators (using an adaptation of the BSRQ) will not assign higher scores to male-valued items than to female-valued items in reporting their perceptions of the ideal administrator.

3. Compared to men, women special education administrators will not report a significantly greater discrepancy between their perceptions of the ideal administrator and their evaluations of themselves as administrators (for either male-valued or female-valued items), as measured by an adaptation of the BSRQ.

4. Compared to younger administrators, older special education administrators will not report a significantly greater discrepancy between their perceptions of the ideal administrator and their evaluations of themselves as administrators (for either male-valued or female-valued items), as measured by an adaptation of the BSRQ.

5. Compared to less experienced administrators, special education administrators with more experience will not report a significantly greater discrepancy between their
perceptions of the ideal administrator and their evaluations of themselves as administrators (for either male-valued or female-valued items), as measured by an adaptation of the BSRQ.

Significance of the Study

Similarly designed studies have supported the speculation that business administrative roles are perceived as "masculine," and that this perception has impeded women's participation in these roles. Given the power of these stereotypes, a woman may perceive that she has but two choices: to rely upon the traits of the traditional "woman's role," with which she and her colleagues are familiar, or to adopt the traits of the "administrative role," with which she and her colleagues are also familiar. Either of these choices is likely to reinforce the status quo: to "act like a woman" is not to be a "good administrator"; to "act like an administrator" is to reinforce the role as a "man's role" in which only a rare "manly" woman may participate (Schein, 1975). To the extent that women administrators see these as their choices, women's access to administrative positions will not change.

Similar speculations exist about women in school administration, despite women's demonstrated competence. However, education researchers have not attempted to measure the dimensions or impact of these stereotypic perceptions among school administrators.

The findings of this study will aid the understanding of the relationship between sex roles and perceptions of the special education
administrative role. A fuller understanding of this relationship will inform those seeking to broaden women's opportunities for special education administration in particular, and for school leadership in general.

**Limitations of the Study**

Related to the conceptual and methodological design of this study are several limitations. A theoretical limitation pertains to the adaptation of the Broverman Sex-Role Questionnaire, an instrument for which norms were developed over ten years ago. Changes in the boundaries of sex-role behavior over the past ten years may have altered people's perceptions of sex-role traits. However, the norms established for the Broverman Sex-Role Questionnaire have not been re-calibrated for this study to reflect any possible changes that may have occurred in sex-role perceptions.

One methodological limitation to this study is that only 215 participants were included from a population of over 650 special education administrators in New England, and several thousand nationwide. A second limitation in the study's methodology is the inclusion of only 16 female-valued items, as compared to 27 male-valued items.

As an *ex post facto*, non-experimental design, the study could not control for unspecified variables that may have influenced the specified variables of the study. Also, the design relied upon the responses of volunteers, which builds in a particular yet unspecified sampling bias. In addition, the study is designed to examine the respondents' perceptions of traits, which cannot be assumed to be actual traits. Finally, these
respondents assigned their own interpretations to the labels and intervals of the scales, thus imposing a range of response variability that could not be safeguarded.

The impetus for this study was structured by the empirical and theoretical literature in several disciplines related to women's roles in educational leadership. The following chapter documents that structure.
CHAPTER II

REVIEW OF THE LITERATURE

This chapter reviews literature pertinent to the research hypotheses explored in this study. The review is divided into three primary sections, related to the research questions discussed previously.

**Question 1**

Do men and women special education administrators have a similar view of their professional role?

**Role theory**

Sociologist Talcott Parsons has developed an understanding for "role" which has influenced the development of role theory. Parsons describes a role as "the aspect of what the actor does in his relationship with others seen in the context of its functional significance for the social system" (Parsons, 1951, p. 25). Elizabeth Janeway has pointed out that three salient features of that definition are "relationship," "activity," and "social system" (Janeway, 1971).

Involved in a role relationship, according to Janeway, are interactions (i.e., behavior toward another) and shared perceptions of their meaning. That is, social systems shape beliefs and understandings so that people can know "what is going on between them" (1971, p. 71).

A fourth aspect of Parsons' definition—"functional significance"—
has been emphasized by other theorists concerned with role (Goffman, 1961; Turner, 1968). This significance is generally discussed in terms of "normative demands," which are first presented to children within the sub-culture of the family and family members' roles. Therefore, one's first introduction to roles is to learn what family members' relationships and activities are supposed to be, within the context of the family, and the family's place in the community (Janeway, 1971; Parsons, 1951). According to Parsons, most adult behaviors and basic ideas about "appropriateness" are shaped by the child's experiences of roles (i.e., learning how people "ought to be") in the family. It is the impact of these early experiences that gives roles their normative quality, and infuses male and female roles with particular potency.

Janeway has ascribed three purposes to role-taking: social learning, the development of self-concept, and social communication. She emphasizes that "role" involves both a private and a public domain. The learning of roles, as this learning pertains to children, provides a powerful influence upon the development of personal traits. A child derives how she "ought to be" from an earlier learning of "what mommies do," or "what girls do." As she grows older, it becomes important to perform roles so as to create a public awareness consistent with her self image (1971).

Erving Goffman has concluded that assuming a role—that is, conforming to its normative demands—affects a person's self-perception or identity (1961). Janeway concurs with this conclusion. The sequence would go something like this: a person learns how the world
should be, and responds accordingly with his own appropriate behavior; this behavior shapes how this person sees himself, which influences the choice of future roles.

The role of the special education administrator

Formalized study of the role of the special education administrator is a relatively new field of inquiry. Leonard Burrello and Daniel Sage view the role of the special education administrator in five dimensions: advocate, facilitator-trainer, policy planner, monitor-evaluator, and program manager (1979). They note certain unique features in these dimensions.

The special education administrator as advocate must serve two separate purposes: guaranteeing the rights of the client, and maintaining the system which delivers services to the client. Within this dual focus is an inherent role conflict with which the administrator must grapple.

As facilitator-trainer, the special education administrator serves as a trainer for technical assistance, as well as a facilitator to technical assistance outside the system. The authors perceive these functions as best served when the special education administrator maintains a consultative--rather than supervisory--posture. Problem-solving and training skills are important for this capacity.

An effective policy planner needs strong conceptual skills to maintain a clear focus on the various levels of planning, the target populations for planning, and the requisite services for each. Problem-solving skills are also emphasized for this dimension.
As the monitor-evaluator, the special education administrator steps into a role heretofore assigned to a staff officer or outside evaluator. This dimension is seen as an intermittent one, which makes problematic the administrator's authority, and the on-going relationships with staff.

To develop and maintain programs for low-incidence populations (i.e., the most severely handicapped children), the special education administrator must serve as a program manager. In particular situations, it might be necessary to designate this role as a separate position.

From an early study of the special education administrative role, Romaine P. Mackie and Anna M. Engel have specified six role dimensions: administrator, supervisor-consultant, inservice educator, researcher, public relations person, and service provider (1956). Of the requisite skills, the 103 surveyed directors ranked leadership and community relations as most important, although the responses were wide-ranging in all areas. The authors concluded that a wide variety of roles were subsumed under the title of director or supervisor of special education.

In a national study of 1,066 special education administrators, John W. Kohl and Thomas D. Marro also found great variability in the role. For example, in response to a question of their sense of being "in charge" of the program, 57.6% of the respondents felt they were and 42.4% felt they were not. Responsibilities varied greatly for budget matters, staff hiring and evaluations, supervision, and curriculum development (1970).

Differences between men and women were also noted. Men outnumbered
women four to one, and tended to have higher degrees, "higher" titles, and more experience. As men tended to be younger than women, the researchers concluded that the percentage of women to men in the field was declining.

**Question 2**

Does the perceived role of the special education administrator more resemble the male sex role than the female sex role?

**Sex-role theory**

Elizabeth Janeway has made two important distinctions that pertain to sex-role theory. First, she notes that some roles are achieved while others are assigned. For example, one achieves the role of a welder or a graduate student. One is assigned to roles such as daughter, first-grader, or man. Second, Janeway points out that the sex roles (i.e., "man" and "woman") do not fit the definition of "role" that she has endorsed from Parsons. Rather, Janeway concludes that the role of woman, for example, is really multiple roles—some achieved, some assigned—that do meet Parsons' criteria (1971). Nonetheless, Janeway sees the performance of sex roles as having an effect on the self-concept equally as powerful as the effect of the role of bank president or redcap.

Joseph Pleck also sees a qualitative difference between the constructs of "role" and "sex role." He has pointed out that, while "role" is concerned with normative behavior, "sex role" includes both normative and typical behavior. His definition of sex role sets up
the following distinction among terms:

The term *sex role* refers to the set of behaviors and characteristics widely viewed as (1) typical of women or men (*sex-role stereotypes*), and (2) desirable for women or men (*sex-role norms*). The behaviors and characteristics comprising sex roles include aspects of personality (traits, dispositions) and social roles (especially activities performed at the job or in the family). (1981, p. 10)

If one assumes some overlap between stereotype (typical) and norm (desirable), Pleck's definition of sex role can be depicted as follows:

It is possible to imagine the "typical" traits that are not generally "desirable"—those that fall to the left of the cross-hatched area (e.g., "unemotional" for men, "cries under pressure" for women). However, the "desirable" traits that are not "typical"—those that fall to the right of the cross-hatched area—by definition cannot exist (i.e., role traits must be "typical"). What Pleck seems to mean can be depicted this way:
Thus, "sex role" is actually synonymous with "sex-role stereotype."

Social learning theorists like Walter Mischel also make no distinction between normative and descriptive behaviors in discussing children's learning of sex-typed behavior. While using a different theoretical model, cognitive developmentalists (e.g., Lawrence Kohlberg) trace the learning of sex roles without separating the normative from the typical (Kohlberg, 1966; Mischel, 1966).

What these various theorists seem to share is a belief that the sex roles are learned early in a child's life before any distinctions are made between "appropriate" and "inappropriate." That is, what mommy does is what ought to be.

Janet Spence and Robert Helmreich have disagreed with this conceptualization of sex role on two accounts. First, they argue that the term should refer only to "behaviors that are positively sanctioned for members of one sex and ignored or negatively sanctioned for members of the other." Second, "sex role" should be limited to behavior--the "acting out of role expectations"--and not include "internal properties" such as personality, preferences and abilities (1978, p. 13).

Spence and Helmreich note that the prescriptive limit is not
maintained in the literature, and that sex-role characteristics are hierarchically valued for individuals in specific situations. However, they also point out that sex-role behaviors tend to show low correlations with traditionally sex-typed preferences, personality traits, and beliefs, and they propose a distinction between "sex-role behavior" and other "properties of the behaving organism" (p. 14).

Pleck has defined sex typing as "the actual characteristics of an individual along sex role-related dimensions," dimensions that can be measured by various inventories of scales pertaining to the traditional sex roles (1981, p. 11). A separate line of inquiry is the investigation of the influence of sex-role stereotypes upon an individual's attitudes, perceptions, or choices. Inventories of scales can be used to measure the extent to which these characteristics match up with traditional sex-role patterns. Both of these current fields of sex-role research are explored below, beginning with the latter.

Earlier sex-role research led to the conceptualization of traditionally masculine and feminine personality traits as measurable sex role paradigms. Best known are David Bakan's agency and communion constructs (1966) and the instrumentality and expressiveness dimensions of Talcott Parsons and Robert F. Bales (1955). While personality theory held that one's clear adherance to a strongly sex-typed personality was necessary for social adjustment (e.g., Miller & Swanson, 1960), another line of research demonstrated the greater social value placed on typically masculine rather than typically feminine traits (e.g., McKee & Sherriffs, 1959).
Out of this dilemma grew a research concern to study the impact of sex-role stereotypes upon attitudes and choices. This concern led to various studies that used and revised the Broverman Sex-Role Questionnaire. The original instrument included 122 bipolar items representing socially desirable traits and their opposites. These items had been determined to differentiate perceptions about men and women (Rosenkrantz, Vogel, Bee, Broverman, & Broverman, 1968). A revised version of the instrument included 82 items in the same format. Norms for this version were developed from the responses of 982 men and women across a wide demographic range (Broverman, Note 4).

In a study of 154 college students, researchers used the original instrument to determine that stereotypically male-valued traits tended to be ranked significantly higher for social desirability than female-valued traits by both men and women (Rosenkrantz et al., 1968). The self-concepts of these subjects tended to be less stereotypic than their perceptions of "typical" men and women, and men's "self" scores tended to be higher in social desirability. The researchers concluded that "women hold negative values of their worth relative to men" (p. 293).

In a study of 79 psychologists, researchers found that the ideal of "mental health" tended to correspond to traditional male traits, but not to traditional female traits (Broverman, Broverman, Clarkson, Rosenkrantz, & Vogel, 1970). That is, the "healthy man" ideal, unlike the "healthy women," was closely related to the subjects' "healthy adult" ideal. Regarding the issue of social adjustment, the researchers concluded that, "for a women to be healthy . . . she must adjust to and
accept the behavioral norms for her sex, even though these behaviors
are generally less socially desirable and considered to be less healthy
for the generalized, competent, mature adult" (p. 6).

Sixty-five women at a Catholic women's college were surveyed
regarding their future role plans for education, employment, and family
life, along with their self-concepts in terms of traditional sex-role
traits (Vogel, Rosenkrantz, Broverman, Broverman, & Clarkson, 1975).
Respondents with less stereotypic self-concepts tended to desire fewer
children, a combination of career and family, and graduate school
immediately after college. The researchers concluded that their find¬
ings support an association between "innovative sex-role enactment" and
"nonstereotypic sex-role self-concepts" (p. 427).

The sex-role attitudes of 150 college women were assessed with a
shortened version of the Broverman instrument (37 items in a 7-point
scale format). Results indicated a significant difference in perceptions
of the "healthy man" and the "healthy women," although not along tradi¬
tionally sex-typed divisions. In general, the "healthy woman" was
perceived as considerably higher in male-valued traits than was predicted.
Women also tended to rate themselves higher than the "healthy woman" on
the male-valued traits. The findings suggest a perceived need to
counter sex-role stereotypes. The anomalous findings of this study
may reflect social change, or may pertain to the population sampling:
"active women located in a socially conscious, liberal, university
community" (Kravetz, 1976).

Using another shortened version of the Broverman instrument (38
items), Carole Petro and Barbara Putnam polled 173 school counselors for their perceptions of typical males and typical females. Compared to men, women counselors were found to hold more traditional sex-role attitudes. The researchers suggested that this finding may indicate changing sex-role perceptions, especially among men. The researchers argued for updated norms to reflect these presumed changes, and speculated about the impact of these women counselors upon young women's self-esteem (1979).

The Broverman instrument was further adapted to create two sex-typing instruments premised upon the construct of psychological androgyny. According to Sandra Bern, "psychological androgyny allows men and women to be both . . . masculine and feminine. In other words, psychological androgyny expands the range of behaviors available to everyone" (Bem, 1977).

The Bem Sex-Role Inventory (BSRI) was designed to measure the extent to which a person's self-definition is masculine, feminine, or androgynous. Individuals whose BSRI scores reflected a balance of masculine and feminine traits (i.e., androgyny) were found to be more adaptable to a range of sex-typed activities (Bem, 1975; Bem & Lenney, 1976). This finding supported the iconoclastic notion that sex-typed personalities were not the ideal of mental health. The development of the BSRI encouraged researchers to examine the relationship between androgyny and a range of personality and behavior variables:

With the new scales in hand, researchers enthusiastically set out to discover how androgyny was related to almost
every conceivable variable in almost every imaginable population: Did androgynous college students have higher self-esteem than sex-typed students? Were they more flexible, less Machiavellian, more egalitarian, taller, more athletic? Were androgynous high school students brighter, more popular, less conventional in their hobbies than their sex-typed peers? What about androgynous senior citizens--were they happier and did they have fewer heart attacks than their sex-typed age-mates? (Lenney, 1979, p. 705)

Janet Spence developed a second androgyny assessment instrument, the Personality Attributes Questionnaire (PAC), which makes a distinction within Bem's androgynous population (Spence, Helmreich, & Stapp, 1974). Spence's work separates sex-typed "balanced" individuals into high scoring and low scoring categories. Spence found that members of the high scoring group, whom she labeled "androgynous," measured much higher in self-esteem than those whom she labeled "masculine," "feminine," or "undifferentiated" (Spence et al., 1974). Similar results were obtained by other researchers (Gauthier & Kjervic, 1982; Heilbrun, 1976; Orlofsky, 1977), who found higher levels of self-esteem to be characteristic of androgynous and masculine-typed males and females, with lower self-esteem characteristic of feminine and undifferentiated males and females. This research suggests that self-esteem is related to high levels of masculinity (as measured by the sex-typing instrument), regardless of the femininity level.

Using the BSRI, Jacob Orlofsky and Michael Windle found that,
while androgyny (as per Spence) was related to behavioral adaptability, "sex typing . . . is not as detrimental to the sense of personal integration and well-being as much of the literature suggests" (1978, p. 811). This conclusion derived from data indicating high levels of personal adjustment among all but those labeled "undifferentiated." These researchers did not find a relationship between low self-esteem and high femininity in women.

Using the BSRI, Jeanne Brooks-Gunn and Melanie Fisch surveyed 240 college students in a study that related to the earlier discussion of stereotypic perceptions. Replicating aspects of both the 1970 Broverman study and the 1976 Kravetz study, these researchers found that women—but not men—tended to describe the "healthy woman" as similar to the adult standard (1980). Unlike the results of the Petro & Putnam study, this finding is consistent with Kravetz' earlier study of college women (1976), supporting the conclusion among a number of researchers that women's sex-role attitudes are changing. These findings may further suggest that the traditionally "feminine" woman does not receive comparable social status with men—in the eyes of men and in the changing eyes of women.

Several authors have challenged various aspects of the androgyny construct. Alexandra Kaplan has maintained that the androgynous individual (i.e., one high in both masculine and feminine traits) may demonstrate these traits in inappropriate or inflexible ways. Kaplan points out that behavioral flexibility can be maladaptive if the individual cannot measure situational appropriateness. The androgyny
scales measure only the existence of androgynous traits, and not an individual's flexibility or judgment in manifesting them (1979).

Joy Anne Kenworthy has examined the implications faced by the androgynous individual in a social environment that may reject any but clearly sex-typed individuals. Kenworthy contends that the androgynous man is more likely to receive social acceptance than the androgynous woman in a traditional, middle-class community (1979).

Saul Feinman has explored the opposite proposition: that androgynous behavior is more acceptable in girls than in boys. In a study of 169 college students, Feinman measured the approval of cross-sex-role behavior for boys and girls (1979). The results indicate that male-role behavior is more approved than female-role behavior for both boys and girls. Feinman concluded that the significant factor is that male behavior is high status and female behavior low status. Thus, the culture sustains "the everyday belief that it is worse to be a sissy than a tomboy" (p. 297). This study supports, at a general level, Kenworthy's and Kaplan's proposition that the androgynous individual is not an inherently well-adjusted one.

Another critic of the androgyny construct, Joseph Pleck, has not critiqued androgyny's specific viability as a sex-typing theory. Rather, Pleck is concerned with the viability of the notion that mental health can be calibrated in sex-typing terms at all. He argues that the historical pattern of sex-typing research has been to replace one standard of mental health with another. For Pleck, the value of androgyny lies not in its recalibration of a standard for the prediction
of social adjustment, but in its focus on situational adaptation: The situational adaptation argument implies that particular personality characteristics, whether sex-typed or androgynous, lead to good or bad psychological adjustment only in the context of particular situations. Thus, androgyny research signals the end of the long search for an intrinsic relationship between sex-typing and adjustment. (1981, p. 93)

Pleck maintains that, while "sex role" is not limited in the real world to a normative standard, theorists have tended to define normative standards for sex roles, thus guaranteeing a recapitulation of stereotyping and sex-role strain.

Sex differences

Related to an understanding of the influence of sex-role stereotypes is an understanding of actual differences between the sexes. The advent of standardized testing led to the development of instruments to measure "masculinity" and "femininity" as distinct sex-typed constructs (Terman & Miles, 1936). In subsequent research, the degree to which sex-role traits were the result of biological determinants or environmental conditions was often debated and sometimes overlooked by researchers (Sargent, 1977). Recent research into sex differences has continued to debate the issue: the extent—and significance—of biologically influenced differences between the personality and cognitive structures of males and females is not yet known (Bee, 1974; Maccoby & Jacklin, 1974; Mitchell, 1981; Money &
Studies of innate sex differences in humans (beyond differences in anatomy) have revealed more similarities than differences, and frequently the differences have been inconsistent across similarly designed studies (Bee, 1974; Maccoby & Jacklin, 1974; Mitchell, 1981; Pleck, 1981).

One relevant factor in this research is the apparent bias brought to an investigation by researchers. Psychologist Naomi Weisstein has observed that psychologists in general hold a professional bias that inner traits—not social context—account for human behavior (1971). In support of the influence of role-taking upon personality development, Weisstein concludes that "the evidence is accumulating that what a person does and who he believes himself to be will in general be a function of what people around him expect him to be, and what the overall situation in which he is acting implies that he is" (p. 210).

Elsewhere, Weisstein has presented evidence that scientific bias can overlook, trivialize, or otherwise misinterpret data, resulting in the maintenance of scientific theory's status quo (1982). Other researchers have noted that publication biases result in "the tendency to publish studies that find sex differences, while studies that document sex similarities often go unpublished" (McHugh, Frieze, & Hanusa, 1982, p. 468).

A related issue in the research on sex differences is the difficulty in defining the extent to which reported differences are sensitive to cultural shaping. Cross-cultural studies have repeatedly concluded
that human behavior is highly sensitive to socialization, and that such shaping is sufficient to account for virtually all sex differences of personality and cognition (Chodorow, 1971; Janeway, 1971; Mead, 1949; Mitchell, 1981). It has been argued that a redirection of these socializing forces can compensate for sex-typed differences and tendencies, regardless of their biological or sociological origin (Chodorow, 1971; Weisstein, 1971).

In reviewing the studies of nurturant behavior in women (Bee, 1974; Hutt, 1972; Maccoby, 1966; Maccoby & Jacklin, 1974), Norma McCoy has suggested that greater nurturant behavior in females results from their ability to gestate and lactate, and not necessarily from a unique personality construct (McCoy, 1977). Similarly, McCoy argues that aggression in males has been shown to be only indirectly related to differences in the brain (Money & Ehrhardt, 1972) or differences in bodily structure (Tanner, 1972).

In a review of research studying hormonal and genetic influences upon aggression, Pleck also has concluded that the evidence for biologically determined aggression in male humans is not consistent and relies too heavily on similar evidence for other male primates (1981). Weisstein has demonstrated that findings from primate research suggest a wide range of variability among species and cannot be used reliably to make predictions about human behavior (Weisstein, 1982).

Eleanor Maccoby and Carolyn Jacklin (1974)--and Maccoby in an earlier work (1966)--have concluded that the personality differences between males and females that may be related to intellectual
functioning are an interplay of social and biological forces. In this interplay, biology sets "modal tendencies for cultural demand" (Maccoby, 1966, p. 50) and prescribes the outer limits to the influences of cultural forces.

While there is some evidence of sex-related differences in specific aspects of cognition (e.g., specific analytic, verbal, and arithmetic skills), Maccoby and Jacklin found no appreciable differences between the overall cognitive abilities of males and females. Maccoby has speculated that the specific differences noted in research are explained by the various sex role-related interests and tasks toward which boys and girls are directed: "tasks that are most relevant to the roles they fill currently or are expected to fill in the future" (1966, p. 40).

This stance has received added support from recent studies of mathematics ability and informal experiences in mathematics. In a study of over 1,000 high school students, Sharen Senk and Zalman Usiskin found boys and girls to have equivalent abilities in writing geometry proofs (1983). Having re-examined earlier studies, Senk and Usiskin conclude that differences in mathematics ability favoring boys can be attributed to those social forces that encourage boys' informal exposure to mathematics: "when experience can be controlled, regardless of the difficulty or complexity of the items, girls and boys perform equally well" (p. 199).

Sex-role traits have related to achievement and intelligence differences in males and females. These relationships include independence and intelligence (both sexes); maternal permission to explore and intelligence (young girls); intelligence and competitiveness (both
sexes (Maccoby, 1966; Maccoby & Jacklin, 1974).

Two additional research trends suggest a significant influence from sex-role expectations upon performance. While girls tend to lose confidence or become passive with increasingly difficult challenges, boys tend to gain confidence or become more actively autonomous. Also, boys demonstrating more feminine sex-typed behavior and girls with more masculine sex-typed behavior tend to show greater intellectual abilities (Maccoby, 1966).

**Question 3**

Do women in the role of the special education administrator tend to perceive themselves differently than men do, in comparison to a shared "ideal"?

**Role Conflict**

Virginia Schein studied the perceptions of 167 women middle managers regarding "men in general," "women in general," and "successful middle managers." Analyzing these women's responses to 92 trait scales, Schein found a significant relationship between perceptions about men and managers, and a significant— but far smaller—relationship between perceptions about women and managers (1975). Schein compared these findings to an earlier study of men in middle management (Schein, 1973), in which the relationship between perceptions about women and managers was not significant. Schein concluded that the acceptance of the masculine model for success is apparent among women managers, and strongest during a woman's first several years as a manager. In a study of 100 successful women executives, Margaret Hennig reached the same conclusion.
Hennig found that women-manager role conflicts tended to surface for women after an initial tenure (1971).

The question of role conflict for professional women has been studied by a number of researchers with a range of populations. Carol Truett has defined role conflict to include three classifications. **Personality conflict** occurs when an aspect of one's personality is in conflict with a sex role-prescribed personality trait. **Role-personality conflict** occurs when a personality trait is discordant with the set of traits ascribed to a social or professional role. **Role-role conflict** is presumed to occur when two simultaneously held roles are seen to be dissimilar or mutually exclusive (1979).

The two previously cited studies of women managers are among the many studies of role conflict that have examined this last category: role-role conflict. Truett concludes that role-role conflict is a relevant issue for professional women—and particularly for women administrators—because of stereotypic attitudes about "women's roles" that provide obstacles to women's careers and that shape women's self-perceptions. The previously mentioned studies of women in business management demonstrate the impact of this perceived conflict.

Using the Leadership Behavior Description Questionnaire (Stogdill, Goode, & Day, 1962) and the BSRI (Bem, 1974), Sheila Interlied and Gary Powell surveyed 505 business students, managers, and trainers to examine the relationship of leadership style to sex-role identification. The Stogdill leadership instrument defines structuring behaviors and consideration behaviors as the two behavior domains of leadership.
Overall, the results indicate a relationship between male traits and structuring behavior as a leader, but not between female traits and consideration behavior as a leader. Respondents tended to prefer a "masculine team manager." The researchers concluded that the disassociation of female traits from leadership "consideration" suggests a low social value or perceived low utility of these traits in the managerial context (1979).

In a study of women entering non-stereotypic military training programs, John Adams and Frederick Lawrence found a significant relationship between male co-workers' stereotypic perceptions of women's roles and women's difficulty in socialization. The components of this socialization included equitable treatment by supervisors, acceptance by peers, and job satisfaction (1982). The results of this study provide further support to Truett's conclusion that stereotypic role perceptions are a significant influence upon the role conflict experienced by women at work.

Researchers in Georgia studied school superintendents' stereotypic assumptions of women in leadership roles. Among these 120 superintendents, a significant difference was found between their attitudes toward men and women in assessing case studies (Frasher, Frasher, & Wims, 1982). The researchers concluded that sex bias tended to influence the superintendents' decisions on issues regarding conflicting job and family responsibilities, and relocation for a spouse's career. While no sex bias was apparent in other decisions regarding professional conflicts, the researchers labeled their findings "very depressing for
women who are seriously pursuing careers in education, especially for those who have chosen to combine their careers with marriage and the establishment of families" (p. 267).

The findings of the Georgia study are similar to those of other studies of women seeking to combine professional roles with family roles. Studies of women who became top level administrators in community colleges found that married women tended to enter administration after their children were older or grown (Pfiffner, 1976; Thurston, 1975). However, factors unrelated to child-rearing may have delayed these women's administrative careers.

Truett notes that the conflicts many women encounter between family and career are tied to stereotypic role perceptions on the part of the woman or her husband. A relationship has been found between higher divorce rates and women who aspire to their Ph.D.s ( Clark, 1977). A study of married couples in which both partners were employed outside the home found that wives tended to report a significantly higher level of personal satisfaction than their husbands (Burke & Weir, 1976). Much less frequent are role conflicts as the result of actual family circumstances (e.g., single parent status).

Women as school leaders

In the literature discussed previously are indications that women tend to perceive themselves in negative terms relative to men (e.g., Maccoby, 1966; Rosenkrantz, 1968), and that society tends to hold stereotypic notions about women's abilities (e.g., Adams and Lawrence, 1982; Janeway, 1971; Frasher, et al., 1982). To balance these indications,
this review includes literature which suggests that such perceptions about women in school leadership are unfounded.

In a 1975 study of school superintendents throughout Pennsylvania, Judith Smith surveyed superintendents about the administrative performances of their women principals and assistant principals. Women tended to receive "good" or "excellent" evaluations in the following areas: problem-solving and analytic skills; interpersonal relations; and leadership. Women tended to receive lower ratings in only one area: budget preparation. However, at least two-thirds of the women were rated at least "satisfactory" in their ability in this area (1978).

Helen Morsink polled the teaching staffs of 15 men and 15 women principals to determine these teachers' perceptions of their principals on 12 dimensions of leader behavior. No significant differences were found for the dimensions of tolerance of uncertainty, maintenance of role authority, and consideration of others' needs. Men were rated significantly higher than women in their encouragement of individual initiative. Women were rated significantly higher in eight dimensions: representation of the group; resolution of task conflict; effective use of persuasion; clarification of role expectations; maintenance of productivity; prediction of outcomes; resolution of group conflict; and productive relationships with superiors (1970).

From a 1960-1962 study of 189 elementary school principals, Neal Gross and Anne Trask have concluded that the men and women participants were more alike than they were different. Significant differences between these two groups included the following: 34% of the men
participants had never taught elementary school, as compared to 3% of the women; the men entered administration earlier and held higher career aspirations; while the men tended to prefer management tasks, the women tended to prefer supervision; and the women's schools reported overall higher teacher and pupil performances. There were no significant differences regarding support for and demands of teachers, staff morale, or parent involvement (Gross & Trask, 1976).

The conclusion of Gross and Trask is supported by a range of studies comparing women and men as school administrators. In general, these comparisons have examined populations of school principals. The trait dimensions of leadership have been the focus of these studies, as defined by a number of different research instruments. In all cases, the overall performance of women in school leadership roles was rated at least comparable to men (Araki, 1982; Fishel & Pottker, 1975; Howard, 1975; McCarthy & Webb, 1977).
CHAPTER III

METHODOLOGY

This chapter describes the methodology of the study undertaken to examine the relationship between perceptions of sex-role traits and the perceptions of the traits of the special education administrator. Included in this chapter are the following topics:

Population and sampling procedures;
Instruments (including both the antecedent for and the development of the current study);
Procedures (regarding both data collection and scoring);
Design

Population and Sampling Procedures

Of the approximately 650 special education administrators in the six New England states, about 38.8% are women. Among these states, there is substantial variation in the percentage of women special education administrators (see Table 2).

A questionnaire was mailed to a sample of 393 special education administrators throughout New England. This study used a stratified random sampling technique to sample proportionate numbers of men and women from each of the states. Therefore, the population of special education administrators was divided by sex and by state before sampling 63% of each sub-group. Participants were selected using a random number generator.
The distribution of questionnaires included the following numbers:

Connecticut: 15 women and 35 men
Maine: 50 women and 34 men
Massachusetts: 50 women and 117 men
New Hampshire: 19 women and 15 men
Rhode Island: 5 women and 15 men
Vermont: 19 women and 19 men

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Note: Figures are based upon the number of positions filled when state personnel lists were printed.

**Instruments**

The Broverman Sex-Role Questionnaire

The Broverman Sex-Role Questionnaire was developed to measure the influences of perceived sex-role stereotypes (Broverman et al., 1970;
Clarkson et al., 1970; Rosenkrantz et al., 1968; Vogel et al., 1970; Vogel et al., 1975). The longer version of the instrument includes 82 items; the shorter version includes 36 items. The item format is a 60-point scale labeled at one end with a trait commonly associated with one sex, and at the other end with its opposite trait. The Broverman instruments have maintained a ratio of approximately two male-valued items for every female-valued item (see Appendix D).

Validity. The construct of sex-role stereotype has been defined earlier in this paper as "the set of behaviors or characteristics widely viewed as typical of women or men." Sex-role stereotype as a construct has to do with common perceptions: "The concept of sex-role stereotype implies extensive agreement among people as to the characteristic differences between men and women" (Broverman, 1970, p. 288). Therefore, the measurement of this construct is a measurement of perceptions and not traits.

That the [Broverman Sex-Role Questionnaire] taps meaningful dimensions is attested to by the fact that a high consistency of responses occurs across individuals with respect to how they perceive men and women (Broverman, Note 4, p. 3).

In a study of 1020 women and 730 men, the Broverman Sex-Role Questionnaire was found to measure a significant difference between perceptions about the "typical man" ($t = 6.30; p < .001$) and about the "typical woman" ($t = 5.34, p < .001$).

In general, men's and women's responses showed a high consistency in their perceptions of males and females, for both male-valued and female-valued traits. To describe the "typical man," women and men
reported male-valued scores of 48.3 and 46.8 respectively; for the
female-valued traits, 44.7 and 42.9 respectively. To describe the
"typical woman," women and men reported male-valued scores of 39.5
and 39.4 respectively; for the female-valued traits, 50.3 and 50.2
respectively (Broverman, Note 5).

Reliability. Reliability data for the 82 item questionnaire
were developed from the responses of "about 150 subjects" (Broverman,
Note 5, p. 3), and are presented in Table 3. The substantial difference
between the number of male-valued and female-valued items (54 male-
valued and 25 female-valued items) accounts in part for the lower relia-
bility coefficients for the female-valued items. The lower co-effici-
ents also suggest a greater range of perceptions about the female sex
role.

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<th>Item Responses</th>
<th>( r_{xx} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male-Valued Items</td>
<td></td>
</tr>
<tr>
<td>Typical adult male</td>
<td>.81</td>
</tr>
<tr>
<td>Typical adult female</td>
<td>.83</td>
</tr>
<tr>
<td>Self</td>
<td>.89</td>
</tr>
<tr>
<td>Female-Valued Items</td>
<td></td>
</tr>
<tr>
<td>Typical adult male</td>
<td>.80</td>
</tr>
<tr>
<td>Typical adult female</td>
<td>.58</td>
</tr>
<tr>
<td>Self</td>
<td>.72</td>
</tr>
</tbody>
</table>

Note: Reliability coefficients were com-
puted using the Spearman-Brown formula.
Adaptation of the Broverman Sex-Role Questionnaire for the Present Study

Because this study was designed as a mailed survey, particular attention was paid to format simplicity. In an early feasibility investigation for this study, 15 professionals affiliated with a treatment center for special needs children completed a preliminary survey instrument using the 60-point format (see Appendix C). These 15 men and women (administrators, therapists, and teachers) used Broverman's 60-point scales to indicate their perceptions about the ideal professional in their field, and about their own professional performance. In follow-up interviews, some participants (fewer than 20%) expressed difficulty in making choices on scales as large as 60 points.

Therefore, a simplified survey instrument was field-tested, reducing Broverman's 60-point continuum to a seven-point scale. Comments and suggestions from field-test participants resulted in the development of the 36-point scale actually used in the study (see Appendix A). This final version reflects concern for both format simplicity and the instrument's sensitivity to the smaller degrees of difference among respondents' perceptions.

Item Selection. The following five criteria were used to select items for the adapted survey instrument:

1) the item's relevance to the role of special education administration;

2) the extent to which items were perceived to have distinct (i.e., non-overlapping) meanings;
3) the positive connotations of the traits;
4) the degree to which an item has been found to be "stereotypic";
5) the ratio of male-valued to female-valued items.

The preliminary investigation interviews with the administrators and teachers in the special education facility provided confirming data about the relevance of specific items to special education administration (criterion 1).

The preliminary interviews with administrators, teachers and therapists helped to identify items that were perceived to have distinct meanings (criterion 2).

These same interviews provided information about the positive connotations attached to the various traits (criterion 3).

A large number of "high consensus" traits were considered for the adapted instrument (criterion 4). The source of these items was the 36-item Broverman Sex-Role Questionnaire (Broverman, Note 6), developed from those items producing the highest consensus among 1814 male and female participants.

The adapted survey instrument was developed to maintain a close balance between male- and female-valued items. This balance was assumed to be a safeguard against the possibility of results skewed toward more masculine or feminine traits (criterion 5).

In summary, the items for this study were selected to be relevant to the role of the special education administrator, clear and distinct in their meanings, balanced for negative and positive connotations,
weighted toward those of highest consensus as stereotypes, and balanced between male-valued and female-valued items.

Field Test of the Adapted Broverman Instrument

The field test of the adapted Broverman instrument was conducted during November 1982 among 40 administrators. Of the 40 mailed surveys, 35 usable surveys were returned. Table 4 presents summary demographic data about these 35 respondents.

<table>
<thead>
<tr>
<th>Trait</th>
<th>Males (n=18)</th>
<th>Females (n=17)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-35 years old</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>36-40 years old</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>41-45 years old</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>Professional Position</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education administrator</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>Other administrator</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

A total of 55 items were included in the field test survey. Among these were 30 male-valued items, 23 female-valued items, and two items assessing masculinity and femininity that were neither male-valued nor female-valued. Respondents were asked to mark the 55 scales twice. The directions first instructed the respondent to mark each scale to reflect his or her perception of the "ideal trait" for an administrator in the respondent's position. The second set of directions returned the re-
spondent to the first scale to mark each item to reflect the respondent's self-evaluation for each trait.

The Adapted Broverman Instrument: Final Version

The final version of the instrument, the Adapted Broverman Sex-Role Questionnaire, was revised from the field test instrument to include 53 items in a 36-point scale format. An example of one item is printed here:

very not at all
practical 1....2....3....4....5....6....7....8 practical

The directions included no reference to sex roles, and the items were not labeled "male-valued" or "female-valued." Like the field test instrument, the final version of the survey instructed each respondent to mark all of the items twice: first, to indicate the respondent's perception of the ideal trait for a special education administrator; second, to indicate the respondent's self-evaluation for each trait (see Appendix A).

The six scale scores computed from the instrument were "ideal," "self," and discrepancy scores for male-valued items and for female-valued items.

Demographic questions. To develop a profile of the respondents, 12 questions were included at the end of the survey. These questions asked for family and personal data, professional backgrounds, and information about current positions.

Valiability. At present, the adapted Broverman instrument has been
evaluated for face validity. Its development was overseen by professionals with experience in special education administration as well as in sex-role theory.

Reliability. Reliability coefficients (Cronbach's \( \alpha \)) were computed for each of the six scale scores described previously (see Table 5). On the basis of these reliability coefficients, 10 items were eliminated from the study before the data were analyzed. These items were found to be anomalous to the tendencies described by the scales. Thus, data analysis included 43 items (27 male-valued and 16 female-valued), 20 of which had been included on the 36-item Broverman Questionnaire (i.e., items of highest consensus among 1814 respondents as male-valued or female-valued traits).

### TABLE 5

<table>
<thead>
<tr>
<th>Scale</th>
<th>Standardized ( \alpha )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>27 Male-Valued Items</strong></td>
<td></td>
</tr>
<tr>
<td>Ideal</td>
<td>.830\textsuperscript{a}</td>
</tr>
<tr>
<td>Self</td>
<td>.869\textsuperscript{b}</td>
</tr>
<tr>
<td>Discrepancy</td>
<td>.863\textsuperscript{c}</td>
</tr>
<tr>
<td><strong>16 Female-Valued Items</strong></td>
<td></td>
</tr>
<tr>
<td>Ideal</td>
<td>.800\textsuperscript{a}</td>
</tr>
<tr>
<td>Self</td>
<td>.838\textsuperscript{b}</td>
</tr>
<tr>
<td>Discrepancy</td>
<td>.811\textsuperscript{c}</td>
</tr>
</tbody>
</table>

\textsuperscript{a} computed from 209 respondents
\textsuperscript{b} computed from 205 respondents
\textsuperscript{c} computed from 204 respondents
Table 6 presents the items included on the final version of the survey instrument, and pertinent data about each item: its male- or female-value status; its inclusion on the earlier Broverman instrument of 36 highest consensus items; its inclusion in the study's statistical analysis (based on its reliability coefficient).

Procedures

In late February 1983, a questionnaire, cover letter and return envelope (with stamp) were mailed to each of the previously described members of the sample.

Follow-up letters were mailed to early respondents whose surveys were not accurately completed. No follow-up letters were mailed to non-respondents, as the response rate approached 60% in two weeks.

To score the surveys, each interval on the scale was marked as two points, beginning with an initial ten points. Hence, the maximum score on any item was 80, and the minimum was 10. Discrepancy scores were computed by subtracting the "self" score from the "ideal" score on each item. For some items, all scores were reversed, to maintain the value of 80 at the "positive" pole. The six scales ("ideal," "self," and discrepancy scales for male-valued and female-valued items) were developed as the mean scores for all pertinent items.

Design

The study was based on a non-experimental, ex post facto research design, using the self-report instrument described above. The dependent variables were the six scale scores (described previously) to
TABLE 6
SUMMARY TABLE OF ITEM SELECTION (FINAL VERSION)

<table>
<thead>
<tr>
<th>Male-Valued Traits</th>
<th>High Consensus(^a)</th>
<th>Omitted from Data Analysis(^b)</th>
<th>Male-Valued Traits</th>
<th>High Consensus(^a)</th>
<th>Omitted from Data Analysis(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>very practical</td>
<td></td>
<td></td>
<td>very direct</td>
<td></td>
<td></td>
</tr>
<tr>
<td>very independent</td>
<td>X</td>
<td></td>
<td>very willing to accept change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>very consistent</td>
<td></td>
<td></td>
<td>feelings not easily hurt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>very realistic</td>
<td></td>
<td></td>
<td>very intelligent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>very objective</td>
<td></td>
<td></td>
<td>can make decisions easily</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mainly interested in generalities</td>
<td></td>
<td>X</td>
<td>never gives up easily</td>
<td></td>
<td></td>
</tr>
<tr>
<td>not at all easily influenced</td>
<td>X</td>
<td></td>
<td>very outgoing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>minds very much when things are not clear</td>
<td></td>
<td></td>
<td>always does things without being told</td>
<td></td>
<td></td>
</tr>
<tr>
<td>not at all excitable in a minor crisis</td>
<td>X</td>
<td></td>
<td>almost always acts as a leader</td>
<td></td>
<td></td>
</tr>
<tr>
<td>very strict</td>
<td></td>
<td></td>
<td>never worried</td>
<td></td>
<td></td>
</tr>
<tr>
<td>very competitive</td>
<td>X</td>
<td></td>
<td>very self-confident</td>
<td></td>
<td></td>
</tr>
<tr>
<td>very logical</td>
<td>X</td>
<td></td>
<td>very ambitious</td>
<td></td>
<td></td>
</tr>
<tr>
<td>very skilled in business</td>
<td>X</td>
<td></td>
<td>very assertive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>very adventurous</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)Items included among those eliciting highest agreement from 1,814 respondents (Broverman, Note 6).

\(^b\)Items (X) excluded from data analysis because of low reliability coefficients.

(Table continues on next page.)
**TABLE 6-(Continued)**

<table>
<thead>
<tr>
<th>Male-Valued Traits</th>
<th>High Consensus&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Omitted from Data Analysis&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Female-Valued Traits</th>
<th>High Consensus&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Omitted from Data Analysis&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>very good sense of humor</td>
<td></td>
<td></td>
<td>very kind</td>
<td></td>
<td></td>
</tr>
<tr>
<td>able to separate feelings from ideas</td>
<td>X</td>
<td></td>
<td>very aware of the feelings of others</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>not at all conventional</td>
<td></td>
<td>X</td>
<td>very interested in own appearance</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>very careful</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>never sees self as running the show</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>very understanding of others</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>very warm in relations with others</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>very comfortable when people express emotions</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>easily expresses tender feelings</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>very sociable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>very affectionate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>not at all impulsive</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>Items included among those eliciting highest agreement from 1814 respondents (Broverman, Note 6).

<sup>b</sup>Items (X) excluded from data analysis because of low reliability coefficients.
measure respondents' perceptions of their professional role and their performance, and the difference between those perceptions. Independent variables were the respondents' sex, age and years of experience in special education administration. The Statistical Package for the Social Sciences (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975) was used to perform the following statistical procedures.

**Descriptive Analysis.** For all respondents, mean scores and standard deviations were computed for each of the six scales. These same calculations were performed separately on men's scores and on women's scores. Particularly high- or low-scoring individual items were noted.

Demographic data were analyzed with particular attention to differences between men and women respondents.

**Inferential Analysis.** This study measured the continuous scores of correlated samples (hypothesis 2) and independent groups (hypothesis 1, 3, 4, and 5). Hypothesis 2 was tested with a correlated samples t test. Hypotheses 1 and 3 were tested with independent samples t tests. Two-way analyses of variance were used to test hypotheses 4 and 5.
CHAPTER IV

RESULTS

This chapter reports the results of the statistical analyses, according to the following sequence:

Description of the participants;

Sex-related variances among participants' salaries;

Descriptive statistics of the variables;

Tests of the research hypotheses.

Description of the Participants

Of 393 surveys mailed, 215 usable surveys (55%) were returned in time to be included in the study. Of these 215 respondents, 122 (56.7%) were men and 93 (43.3%) were women. A breakdown of these figures by state is presented in Table 7.

TABLE 7

RESPONSE RATE BY STATE

<table>
<thead>
<tr>
<th>State</th>
<th>n</th>
<th>Percentage of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>From Total</td>
</tr>
<tr>
<td>Connecticut</td>
<td>26</td>
<td>12.1</td>
</tr>
<tr>
<td>Maine</td>
<td>44</td>
<td>20.5</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>95</td>
<td>44.2</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>19</td>
<td>8.8</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>9</td>
<td>4.2</td>
</tr>
<tr>
<td>Vermont</td>
<td>22</td>
<td>10.2</td>
</tr>
</tbody>
</table>
Personal Data

Age. Respondents reported their ages by selecting one of six age groups. Among these categories, the respondents' ages were as follows: 6 (2.8%) under 30 years old; 54 (25.1%) between 30 and 35 inclusive; 46 (21.4%) between 36 and 40 inclusive; 40 (18.6%) between 41 and 45 inclusive; 36 (16.7%) between 46 and 50 inclusive; 33 (15.3%) over 50 years old. A breakdown of age by sex is presented in Table 8.

TABLE 8
AGES OF MEN AND WOMEN RESPONDENTS

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Men</th>
<th>%</th>
<th>Women</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>under 30</td>
<td>3</td>
<td>2.5</td>
<td>3</td>
<td>3.2</td>
</tr>
<tr>
<td>31 - 35 years</td>
<td>21</td>
<td>17.2</td>
<td>33</td>
<td>35.5</td>
</tr>
<tr>
<td>36 - 40 years</td>
<td>32</td>
<td>26.2</td>
<td>14</td>
<td>15.1</td>
</tr>
<tr>
<td>41 - 45 years</td>
<td>27</td>
<td>22.1</td>
<td>13</td>
<td>14.0</td>
</tr>
<tr>
<td>46 - 50 years</td>
<td>19</td>
<td>15.6</td>
<td>17</td>
<td>18.3</td>
</tr>
<tr>
<td>51+ years</td>
<td>20</td>
<td>16.4</td>
<td>13</td>
<td>14.0</td>
</tr>
</tbody>
</table>

Note: Percentage figures represent percentage of men or women.

Families. Respondents were given five choices to describe their family members currently living at home. According to the reported data, 16.9% of the respondents had no spouse or children living at home, while 5.6% of the respondents had children but no spouses living at home. In the third category, 17.8% of the respondents lived with spouses but no children. In the largest category, 58.2% of the respon-
dents lived with both spouses and children. Living only with family members other than spouses or children were 1.4% of the respondents. One regrouping of these data reveals that 59.1% of the women respondents lived in "non-traditional" families (i.e., families other than husbands and children). By contrast, 25.9% of the men respondents lived in households that did not include wives and children. Table 9 presents family data for men and women respondents.

TABLE 9

FAMILIES (AT HOME) OF MEN AND WOMEN RESPONDENTS

<table>
<thead>
<tr>
<th>Family Members</th>
<th>Men</th>
<th></th>
<th>Women</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>No spouse or children</td>
<td>14</td>
<td>11.7</td>
<td>22</td>
<td>23.7</td>
</tr>
<tr>
<td>Children, no spouse</td>
<td>3</td>
<td>2.5</td>
<td>9</td>
<td>9.7</td>
</tr>
<tr>
<td>Spouse, no children</td>
<td>14</td>
<td>11.7</td>
<td>24</td>
<td>25.8</td>
</tr>
<tr>
<td>Spouse and children</td>
<td>88</td>
<td>73.3</td>
<td>36</td>
<td>38.7</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>.8</td>
<td>2</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Note: Percentage figures represent percentage of men or women.

Professional Backgrounds

Degree. Choosing among five options, 2.3% of the respondents reported their highest degree as a bachelor's degree. Those respondents with a master's degree (but fewer than 30 credits beyond the master's degree) comprised 28.4% of the sample. In the largest category, 56.3% of the respondents held a master's degree with at least 30 additional
graduate credits. A doctorate was reported by 13.0% of the respondents. Regrouping some of these data reveals 69.3% of the respondents held at least a master's degree with 30 additional credits. Men held 65.1% of these higher degrees. Table 10 presents comparative data for men's and women's highest degrees.

**TABLE 10**

HIGHEST DEGREES OF MEN AND WOMEN RESPONDENTS

<table>
<thead>
<tr>
<th>Highest Degree</th>
<th>Men</th>
<th></th>
<th>Women</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor's Degree</td>
<td>1</td>
<td>.8</td>
<td>4</td>
<td>4.3</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>24</td>
<td>19.7</td>
<td>37</td>
<td>39.8</td>
</tr>
<tr>
<td>Master's Degree + 30</td>
<td>77</td>
<td>63.1</td>
<td>44</td>
<td>47.3</td>
</tr>
<tr>
<td>Doctorate</td>
<td>20</td>
<td>16.4</td>
<td>8</td>
<td>8.6</td>
</tr>
</tbody>
</table>

Note: Percentage figures represent percentage of men or women.

Years of administrative experience. In reporting their professional experience, respondents were asked to record their number of years as a special education administrator, including the current year. The mean number of years reported in this category was seven. The maximum number of years reported was 23, while nine respondents reported the current year as their first. Most frequently reported were four and five years of experience, with 27 respondents reporting each of these figures. (Five respondents did not report their years of experience in this category.) Table 11 presents comparative data for men's and women's years of special education administrative experience.
### TABLE 11

**MEN'S AND WOMEN'S YEARS OF EXPERIENCE IN SPECIAL EDUCATION ADMINISTRATION**

<table>
<thead>
<tr>
<th>Years</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>1 - 3</td>
<td>18</td>
<td>8.6</td>
</tr>
<tr>
<td>4 - 6</td>
<td>26</td>
<td>12.4</td>
</tr>
<tr>
<td>7 - 9</td>
<td>32</td>
<td>15.2</td>
</tr>
<tr>
<td>10+</td>
<td>41</td>
<td>19.5</td>
</tr>
</tbody>
</table>

*Note: Percentage figures represent percentages of men or women.*

**Prior teaching experience.** The survey also asked the respondents to report their number of years in teaching before entering administration. The mean number of years reported in this category was seven. The maximum number of years reported was 28, and two respondents reported one year of teaching experience prior to entering administration. Twelve respondents reported no years of teaching experience, having entered school administration from counseling, school social work, or psychology backgrounds. While the survey did not ask the respondents to record their years of experience in clinical fields, 17 respondents reported data about prior clinical experience. An additional 53 respondents reported certifications in school guidance, social work, or school psychology, and also may have had experience in clinical fields prior to entering administration. Most frequently reported were five and six years of teaching experience, with 28 respondents for each figure.
Certifications. To report their certifications, respondents were given seven choices (six specific certification categories, plus "other"). Of the 215 respondents, 79.1% reported certification in special education administration, and 54.4% reported certification as school administrators. Other administrative certifications included the following: superintendent or assistant superintendent (5.6%); director of guidance or pupil personnel services (6.0%). Teaching certifications were reported as follows: 65.6% of the respondents were certified to teach in a special education classroom; 52.6% held certification(s) to teach in a regular education classroom. Other teaching certifications included the following: speech pathology, speech, hearing, or language disorders (5.6%); reading specialist (2.3%); early childhood education (1.4%); other special education certifications (.9%). It should be noted that 11 respondents listed no teaching certifications, but elsewhere specified years of teaching experience. Certification as a guidance counselor was held by 21.9% of the respondents, and 20.0% were certified in school psychology. Other school clinical certifications included school adjustment counseling (.9%), and school social work (.9%). (See Table 12.)

Current Professional Positions

Administrative titles. Respondents reported their current administrative titles as follows: Director of Special Education (or Special Services), 52.6%; Coordinator of Special Education (or Special Services), 15.8%; Director of Pupil Personnel (or Educational) Services, 13.0%;
TABLE 12
CERTIFICATION REPORTED BY RESPONDENTS

<table>
<thead>
<tr>
<th>Certification</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Education</td>
<td>170</td>
<td>79.1</td>
</tr>
<tr>
<td>School (Elementary or Secondary)</td>
<td>117</td>
<td>54.4</td>
</tr>
<tr>
<td>Superintendent (or Assistant)</td>
<td>12</td>
<td>5.6</td>
</tr>
<tr>
<td>Director of Guidance (or Pupil Personnel Service)</td>
<td>13</td>
<td>6.0</td>
</tr>
<tr>
<td>Teaching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Education</td>
<td>141</td>
<td>65.6</td>
</tr>
<tr>
<td>Regular (Elementary or Secondary)</td>
<td>113</td>
<td>52.6</td>
</tr>
<tr>
<td>Specialists</td>
<td>22</td>
<td>10.2</td>
</tr>
<tr>
<td>Counseling/Psychology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guidance Counselor</td>
<td>47</td>
<td>21.9</td>
</tr>
<tr>
<td>School Psychology</td>
<td>43</td>
<td>20.0</td>
</tr>
<tr>
<td>School Adjustment Counseling</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>School Social Work</td>
<td>2</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Superintendent, 1.9%; Supervisor of Special Education (or Special Services), 1.9%; other administrative titles, 6.0%. In addition, one respondent held no administrative title, as her administrative duties were included in her position as a special education teacher.

Responsibilities. The survey included questions about the respondents' range of responsibilities. About two-thirds of the respondents (62.8%) devoted full time to special education administration. On the other hand, 5.6% were part-time teachers or counselors, and 31.6% were full-time administrators for whom special education was only part
of their responsibilities. Within this last category were 28 respondents (13.0% of the total) who held two administrative titles.

**Size of unit.** To report the size of their administrative units, respondents chose among five alternatives. Over one-half of the respondents (54.4%) administered units with fewer than 2,500 children, and another one-third (33.0%) administered units of 2,500 to 4,999 children. Therefore, fewer than 13% of the respondents administered districts of 5,000 or more children: 8.4% in districts of 5,000 to 9,999 children; 2.3% in districts of 10,000 to 14,999 children; .9% in districts of 15,000 to 19,999 children; .9% in districts larger than 20,000 children.

All respondents working in districts of 15,000 or more children held positions in Massachusetts. Respondents from Vermont reported districts no larger than 2,500 to 4,999 children. One respondent from New Hampshire (5.3% of New Hampshire respondents) and two respondents from Maine (4.5% of Maine respondents) reported working in districts as large as 5,000 to 9,999 children.

Table 13 includes comparative data for men and women respondents' administrative unit size. Of the 117 respondents from units smaller than 2,500, 54% were women. Maine accounted for virtually all of this disproportion. Of Maine's 30 women respondents, 90% were from districts smaller than 2,500 children. Among the respondents from these 34 smallest Maine units, the ratio of women to men was approximately 4:1.
TABLE 13

SIZE OF MEN'S AND WOMEN'S ADMINISTRATIVE UNITS

<table>
<thead>
<tr>
<th>Size</th>
<th>Men</th>
<th></th>
<th>Women</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>under 2,500 children</td>
<td>54</td>
<td>44.3</td>
<td>63</td>
<td>67.7</td>
</tr>
<tr>
<td>2,500 - 4,999 children</td>
<td>48</td>
<td>39.3</td>
<td>23</td>
<td>24.7</td>
</tr>
<tr>
<td>5,000 - 9,999 children</td>
<td>13</td>
<td>10.7</td>
<td>5</td>
<td>5.4</td>
</tr>
<tr>
<td>10,000 - 14,999 children</td>
<td>3</td>
<td>2.5</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>15,000 - 19,999 children</td>
<td>2</td>
<td>1.6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20,000 + children</td>
<td>2</td>
<td>1.6</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: Percentage figures represent percentages of men or women.

Salaries. Respondents were asked to choose among five options to record their full-time salaries (regardless of contract or position). Of the 209 respondents reporting salary data, 1.0% earned less than $15,000 annually, while 11.5% earned $15,000 to $19,999. Over twice as many respondents (27.8%) earned $20,000 to $24,999. Somewhat fewer (20.6%) earned $25,000 to $29,999. The largest percentage of the respondents (39.2%) earned $30,000 or more (see Table 14).

TABLE 14

RESPONDENTS' SALARIES

<table>
<thead>
<tr>
<th>Salary</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>under $15,000</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>$15,000 - $19,999</td>
<td>24</td>
<td>11.5</td>
</tr>
<tr>
<td>$20,000 - $24,999</td>
<td>58</td>
<td>27.8</td>
</tr>
<tr>
<td>$25,000 - $29,999</td>
<td>43</td>
<td>20.6</td>
</tr>
<tr>
<td>$30,000 +</td>
<td>82</td>
<td>39.2</td>
</tr>
</tbody>
</table>
Among Connecticut respondents, 56.0% earned over $30,000 annually, and none earned less than $20,000. Similarly, among Massachusetts respondents, 57.0% earned over $30,000 annually, and 2.2% earned less than $20,000. Of the nine Rhode Island respondents, none earned less than $30,000.

By contrast, 84.2% of New Hampshire respondents earned $20,000 to $30,000, and one of those respondents (5.3% within New Hampshire) earned over $30,000. Among Vermont respondents, 81.0% earned $20,000 or more; four salaries (19.0% within Vermont) were $25,000 or higher. Finally, among Maine respondents, 59.5% earned $20,000 or more, with three respondents (7.1% within Maine) earning over $30,000. The two salaries below $15,000 were reported by Maine respondents.

Data comparing men's and women's salaries is presented in Table 15. Included in the highest salary category were 52.9% of the men and 21.1% of the women. Reporting salaries below $20,000 were 3.4% of the men and 24.4% of the women.

<table>
<thead>
<tr>
<th>Salary</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>under $15,000</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>$15,000 - $19,999</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>$20,000 - $24,999</td>
<td>21</td>
<td>37</td>
</tr>
<tr>
<td>$25,000 - $29,999</td>
<td>31</td>
<td>12</td>
</tr>
<tr>
<td>$30,000 +</td>
<td>63</td>
<td>19</td>
</tr>
</tbody>
</table>

Note: Percentage figures represent percentage of men or women.
Sex-Related Variances Among Respondents' Salaries

Three cross-tabulations were completed of respondents' salary range and sex, in each controlling for one of the following variables: highest degree, size of administrative unit, or years of experience in special education administration. For this discussion, the salary range is simplified to two levels: under $25,000, and $25,000 and higher.

Control Variable: Highest Degree

Holding constant respondents' highest degree, three levels were created: bachelor's degree respondents were combined with master's degree respondents; separate levels were maintained for respondents with master's degrees plus 30 graduate credits, and those with doctorate degrees.

Of the 64 respondents with either a bachelor's or master's degree, the ratio of women to men was 60.9:39.1. Within this group, 12.8% of the women and 56.0% of the men earned $25,000 or more. (Table 16 presents the data from the cross-tabulations of respondents' salary and sex.)

Of the 119 respondents with a master's degree and at least 30 graduate credits, the ratio of women to men was 36.1:63.9. Within this group, 48.8% of the women and 84.2% of the men earned at least $25,000.

Among the 26 respondents with doctorates, the ratio of women to men was 30.8:69.2. Of these respondents, 62.5% of the women and 88.9% of the men earned $25,000 or more.
TABLE 16
RESPONDENTS EARNING OVER $25,000: A COMPARISON OF MEN AND WOMEN USING THREE SEPARATE VARIABLES

<table>
<thead>
<tr>
<th>Variable</th>
<th>Men</th>
<th></th>
<th>Women</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Highest Degree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.A. or M.A.</td>
<td>14</td>
<td>56.0</td>
<td>5</td>
<td>12.8</td>
</tr>
<tr>
<td>M.A. plus 30</td>
<td>64</td>
<td>84.2</td>
<td>21</td>
<td>48.8</td>
</tr>
<tr>
<td>Doctorate</td>
<td>16</td>
<td>88.9</td>
<td>5</td>
<td>62.5</td>
</tr>
<tr>
<td>Size of Unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>under 2,500</td>
<td>35</td>
<td>67.3</td>
<td>13</td>
<td>21.6</td>
</tr>
<tr>
<td>2,500 - 4,999</td>
<td>39</td>
<td>83.0</td>
<td>12</td>
<td>52.2</td>
</tr>
<tr>
<td>5,000 - 9,999</td>
<td>13</td>
<td>84.6</td>
<td>4</td>
<td>80.0</td>
</tr>
<tr>
<td>10,000 or more</td>
<td>7</td>
<td>100.0</td>
<td>2</td>
<td>100.0</td>
</tr>
<tr>
<td>Years of Experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - 3 years</td>
<td>12</td>
<td>66.7</td>
<td>2</td>
<td>10.5</td>
</tr>
<tr>
<td>4 - 6 years</td>
<td>18</td>
<td>69.3</td>
<td>15</td>
<td>33.3</td>
</tr>
<tr>
<td>7 - 9 years</td>
<td>25</td>
<td>80.7</td>
<td>6</td>
<td>33.3</td>
</tr>
<tr>
<td>10 or more years</td>
<td>37</td>
<td>94.9</td>
<td>8</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note: % column designates the percentage of women or men within the specified level of the variable who earned salaries of $25,000 or more (e.g., "percentage of women with bachelor's or master's degrees").

Control Variable: Size of Administrative Unit

Considering the size of the administrative unit, four levels were created. Of the 112 respondents administering units of fewer than 2,500 children, the ratio of women to men was 53.6:46.4. Among these respondents, 21.6% of the women and 67.3% of the men earned at least $25,000.

Among the 20 respondents from units of 2,500 to 4,999 children,
the ratio of women to men was 32.9:67.1. Of these respondents, 52.2% of the women and 83.0% of the men reported salaries of at least $25,000.

In units of 5,000 to 9,999 children, the ratio of men to women was 27.8:72.2. Among these respondents, 80% of the women and 84.6% of the men earned $25,000 or more.

Units as large as 10,000 children included only nine respondents. The ratio of women to men was 22.2:77.8; all earned at least $30,000.

Control Variable: Years of Experience

To examine the effect of respondents' years of experience in special education administration, four levels were again created. Of the 37 respondents with three or fewer years of administrative experience, the ratio of women to men was 51.4:48.6. Within this group, 10.5% of the women and 66.7% of the men reported salaries of $25,000 or more.

Of the respondents with four to six years of experience, the ratio of women to men was 63.4:36.6. From this group, 33.3% of the women and 69.3% of the men earned at least $25,000.

Among the respondents with seven to nine years of experience in special education administration, the ratio of women to men was 36.7:63.3. Of these respondents, 33.3% of the women and 80.7% of the men reported salaries of $25,000 or higher.

Among most experienced respondents (10 or more years), the ratio of women to men was 17.0:83.0. Of these respondents, all of the women and 94.9% of the men earned salaries of $25,000 or more.
Summary

Each of the above comparisons holds constant one factor that is likely to influence the respondents' salary range. With the exception of the final comparison (men and women respondents with 10 or more years of experience), the percentage of women earning at least $25,000 was less than the percentage of men at this salary level, regardless of the variable considered. Among these nine comparisons, the percentage difference favored the men by at least 20% (see Table 16).

Descriptive Statistics of the Variables

Mean Ideal Scores: Male-Valued and Female-Valued Items

Of the original 53 items in the survey (30 male-valued and 23 female-valued), 43 items are included in this description of results (27 male-valued and 16 female-valued items). These 43 items were selected following the computation of reliability coefficients (Cronbach's $\alpha$) discussed in Chapter 3. Because cases missing pertinent data are omitted from calculations, sample size is specified for each analysis.

Male-valued items. Each participant recorded an "ideal special education administrator" rating for each of these 43 items. For the 27 male-valued items (computed from 215 cases), mean scores ranged from a high of 69.22 for "can make decisions easily" to a low of 52.92 for "very strict." (It should be noted that scores can range from a low of 10 to a high of 80.) The mean score for the "ideal" variables was 63.94, with a standard deviation of 5.06, computed from 211 cases (see Table 17).
Female-valued items. For the 16 female-valued items (using 215 cases), mean "ideal" scores ranged from a high of 70.87 for "very aware of the feelings of others" to a low of 53.32 for "very affectionate." Computed from 212 cases, the mean score for these variables was 63.14, with a standard deviation of 5.96 (see Table 17).

TABLE 17
MEANS AND STANDARD DEVIATIONS FOR IDEAL, SELF, AND DISCREPANCY SCORES

<table>
<thead>
<tr>
<th>Items</th>
<th>n</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male-Valued</td>
<td>211</td>
<td>63.94</td>
<td>5.06</td>
</tr>
<tr>
<td>Female-Valued</td>
<td>209</td>
<td>63.14</td>
<td>6.00</td>
</tr>
<tr>
<td>Self</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male-Valued</td>
<td>208</td>
<td>59.52</td>
<td>6.04</td>
</tr>
<tr>
<td>Female-Valued</td>
<td>211</td>
<td>59.85</td>
<td>7.36</td>
</tr>
<tr>
<td>Discrepancy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male-Valued</td>
<td>206</td>
<td>4.39</td>
<td>5.20</td>
</tr>
<tr>
<td>Female-Valued</td>
<td>211</td>
<td>3.30</td>
<td>5.35</td>
</tr>
</tbody>
</table>

Highest ranking items. The mean "ideal" scores for 20 of the 43 items were 64.97 and above. Of these 20 higher-valued items, 14 were male-valued and 6 were female-valued. Table 18 presents a rank-ordering of these items, with their corresponding mean "ideal" scores for all respondents, as well as the separate mean scores for men and women respondents.
<table>
<thead>
<tr>
<th>Item</th>
<th>Male-Valued or Female-Valued</th>
<th>Respondents' Mean Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>All n=215</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Men n=122</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Women n=93</td>
</tr>
<tr>
<td>1. Very aware of the feelings of others</td>
<td>female</td>
<td>70.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>70.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>72.0</td>
</tr>
<tr>
<td>2. Very understanding of others</td>
<td>female</td>
<td>69.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>69.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>70.5</td>
</tr>
<tr>
<td>3. Very able to make decisions</td>
<td>male</td>
<td>69.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>69.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>69.5</td>
</tr>
<tr>
<td>4. Almost always acts as leader</td>
<td>male</td>
<td>69.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>69.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>68.2</td>
</tr>
<tr>
<td>5. Very consistent</td>
<td>male</td>
<td>69.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>69.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>68.6</td>
</tr>
<tr>
<td>6. Very logical</td>
<td>male</td>
<td>69.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>64.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>68.5</td>
</tr>
<tr>
<td>7. Very intelligent</td>
<td>male</td>
<td>69.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>67.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>70.7</td>
</tr>
<tr>
<td>8. Very self-confident</td>
<td>male</td>
<td>68.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>69.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>66.7</td>
</tr>
<tr>
<td>9. Very good sense of humor</td>
<td>male</td>
<td>68.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>68.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>68.6</td>
</tr>
<tr>
<td>10. Very able to separate feelings from ideas</td>
<td>male</td>
<td>68.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>68.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>68.8</td>
</tr>
<tr>
<td>11. Very helpful to others</td>
<td>female</td>
<td>68.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>67.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>69.3</td>
</tr>
<tr>
<td>12. Never gives up easily</td>
<td>male</td>
<td>68.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>68.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>67.6</td>
</tr>
<tr>
<td>13. Not at all excitable in a minor crisis</td>
<td>male</td>
<td>67.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>67.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>68.2</td>
</tr>
<tr>
<td>14. Very careful</td>
<td>female</td>
<td>67.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>67.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>67.8</td>
</tr>
<tr>
<td>15. Very practical</td>
<td>male</td>
<td>66.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>68.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>65.0</td>
</tr>
<tr>
<td>16. Very realistic</td>
<td>male</td>
<td>66.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>67.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>64.4</td>
</tr>
<tr>
<td>17. Very kind</td>
<td>female</td>
<td>65.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>65.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>66.0</td>
</tr>
<tr>
<td>18. Very willing to accept change</td>
<td>male</td>
<td>65.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>65.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>65.9</td>
</tr>
<tr>
<td>19. Very warm in relations with others</td>
<td>female</td>
<td>65.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>65.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>66.0</td>
</tr>
<tr>
<td>20. Almost always acts without being told</td>
<td>male</td>
<td>65.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>64.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>65.3</td>
</tr>
</tbody>
</table>
Mean "ideal" scores for men and women. Computed from 90 cases, women's mean "ideal" score for male-valued items was 63.84, with a standard deviation of 4.73. For female-valued items, women's mean "ideal" score was 63.17, with a standard deviation of 5.93. By comparison (using 122 cases), men's mean "ideal" score was 64.02 for male-valued items, with a standard deviation of 5.32. For female-valued items, men's mean "ideal" score was 63.12, with a standard deviation of 6.00 (see Table 19).

<table>
<thead>
<tr>
<th>Items</th>
<th>Men</th>
<th>Women</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Male-Valued</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ideal</td>
<td>122</td>
<td>64.02</td>
<td>5.32</td>
<td>90</td>
<td>63.84</td>
<td>4.73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td>121</td>
<td>60.57</td>
<td>5.93</td>
<td>90</td>
<td>58.07</td>
<td>5.92</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discrepancy</td>
<td>120</td>
<td>3.49</td>
<td>5.06</td>
<td>86</td>
<td>5.65</td>
<td>5.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female-Valued</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ideal</td>
<td>122</td>
<td>63.12</td>
<td>6.00</td>
<td>90</td>
<td>63.17</td>
<td>5.93</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td>122</td>
<td>59.87</td>
<td>7.58</td>
<td>89</td>
<td>59.82</td>
<td>7.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discrepancy</td>
<td>122</td>
<td>3.25</td>
<td>5.39</td>
<td>89</td>
<td>3.36</td>
<td>5.34</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An examination of specific items reveals that, for nine items, men's and women's "ideal" scores differed by 2.5 or greater. Men ranked six items at least 2.5 points higher than women's scores. Four of these items are male-valued: practical, realistic, competitive, and self-
confident. Two items are female-valued: grateful and neat.

Women ranked three "ideal" items at least 2.5 points higher than men's scores. These included two male-valued items (independent and intelligent) and one female-valued item (comfortable when people show emotion).

Mean "Self" Scores: Male-Valued and Female-Valued Items

Male-valued items. Each participant recorded a "self as special education administrator" rating ("self") for each of the 43 items. Computed from 215 cases, mean scores for male-valued items ranged from a high of 63.35 for "minds very much when things are not clear" to a low of 46.62 for "feelings not easily hurt." The mean score for these 27 variables was 59.52, with a standard deviation of 6.04, computed from 208 cases (see Table 17).

Female-valued items. For the 16 female-valued items (also using 215 cases), mean "self" scores ranged from a high of 67.68 for "very aware of the feelings of others," to a low of 51.41 for "very able to express tender feelings." The mean score for these 16 female-valued items was 59.85, with a standard deviation of 7.36, from 211 cases (see Table 17).

Mean "self" scores for men and women. Using 90 cases, the mean "self" score for women on male-valued items was 58.07, with a standard deviation of 5.92. For female-valued items, women's mean "self" score was 59.82, with a standard deviation of 7.08 (computed from 89 cases). Men, on the other hand, reported slightly higher scores. From 121 cases, their mean "self" score for male-valued items was 60.57, with a
standard deviation of 5.93. For female-valued items (computed from 122 cases), men's mean "self" score was 59.87, with a standard deviation of 7.58 (see Table 19).

An examination of specific items reveals that, for 18 items, men's and women's "self" scores differed by 2.5 points or greater. Men ranked 16 items at least 2.5 points higher than women's scores. Fourteen of these items are male-valued: practical, consistent, realistic, competitive, skilled in business, feelings not easily hurt, makes decisions easily, does not give up easily, acts as a leader, self-confident, ambitious, and able to separate feelings from ideas. Two items are female-valued: neat and interested in one's appearance.

Women ranked two "self" items at least 2.5 points higher than men's scores. Both of these items (does not hide emotions and expresses tender feelings) are female-valued.

Mean Discrepancy Scores: Male-Valued and Female-Valued Items

For each participant on each item, a discrepancy score was derived subtracting the "self" score from the "ideal" score. These derived scores were used with the "ideal" scores for the purposes of data analysis.

Male-valued items. Mean scores for male-valued discrepancy scores ranged from a high of 15.45 for "feelings not easily hurt" to a low of -2.73 for "minds very much when things are not clear." (In the case of this and a few other discrepancy scores, the negative number indicates that, overall, participants saw themselves as stronger in a
single trait than they felt was ideal for the special education admin¬
istrator.) Based upon 206 cases, the mean score for these 27 male¬
valued items was 4.39, with a standard deviation of 5.20 (see Table 17).

**Female-valued items.** Based upon 211 cases, mean scores for female¬
valued discrepancy scores ranged from a high of 7.39 for "very able to
express tender feelings," to a low of -1.40 for "very grateful." The
mean score for these 16 female-valued items was 3.30, with a standard
deviation of 5.35 (see Table 17).

**Mean discrepancy scores for men and women.** Women's mean discrep¬
aney score for male-valued items was computed as 5.65 (using 86 cases),
with a standard deviation of 5.16. For female-valued items (using 89
cases), women's mean discrepancy score was computed as 3.36, with a
standard deviation of 5.34. For men (including 120 cases), the mean
discrepancy score for male-valued items was 3.49 — smaller than the
women's comparable score — with a standard deviation of 5.06. For
female-valued items (in 122 cases), men's mean discrepancy score was
3.25 — slightly lower than the women's comparable score — with a
standard deviation of 5.39 (see Table 19).

**Tests of the Research Hypotheses**

**Hypothesis 1**

Men and women special education administrators will not differ
significantly in their perceptions of the ideal special education
administrator (for either male-valued or female-valued items),
as measured by an adaptation of the Broverman Sex-Role Ques¬
tionnaire.
Hypothesis 1 was tested with two \( t \) tests, each a test of independent means. In the first test, the difference between men's and women's mean "ideal" scores for male-valued items was tested. Sample populations included 90 women and 121 men. The test was two-tailed and conducted using the 5% significance level.

No statistically significant difference was found between men's and women's mean "ideal" scores for male-valued items. The test result suggests that men and women have similar perceptions of the role of the special education administrator, in terms of the male-valued items.

In the second test, the difference between men's and women's mean "ideal" scores for female-valued items was tested. For this test, the sample included 90 women and 122 men. As before, the test was two-tailed and conducted using the 5% significance level.

Again, no statistically significant difference was found between men's and women's mean "ideal" scores for female-valued items. The test result indicates that men and women have similar perceptions of the role of the special education administrator, in terms of the female-valued items as well. The first null hypothesis was accepted. Table 20 summarizes the findings for these two tests of the first hypothesis.

Hypothesis 2

Men and women special education administrators (using an adaptation of the Broverman Sex-Role Questionnaire) will not give higher scores to male-valued items than to female-valued items in reporting their perceptions of the ideal special education administrator.
Hypothesis 1 was tested with a *t* test of correlated samples: the mean "ideal" score for the 27 male-valued items and the mean "ideal" score for the 16 female-valued items. In total, 209 cases of both men and women respondents were included in the testing sample. Six cases were excluded from the test as a result of missing variables. The test was two-tailed and conducted using the 5% significance level.

A statistically significant difference was found between the mean "ideal" score for male-valued items and the mean "ideal" score for female-valued items, rejecting the null hypothesis. Table 21 summarizes these findings.
TABLE 21

HYPOTHESIS 2: SUMMARY OF t TEST OF CORRELATED SAMPLES: 
COMPARISON OF MEAN IDEAL SCORES FOR MALE-VALUED 
AND FEMALE-VALUED ITEMS

<table>
<thead>
<tr>
<th>Correlated Samples</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>2-Tail Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideal scores,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>male-valued</td>
<td>209</td>
<td>63.9839</td>
<td>5.054</td>
<td>2.27</td>
<td>208</td>
<td>.024*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>63.1408</td>
<td>5.998</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .05

Hypothesis 3

Compared to men, women special education administrators will not report a significantly greater discrepancy between their perceptions of the ideal administrator and their evaluations of themselves as administrators (for either male-valued or female-valued items), as measured by an adaptation of the Broverman Sex-Role Questionnaire.

Hypothesis 3 was tested with two t tests, each a test of independent means. In the first test, the difference between men's and women's mean discrepancy scores for the male-valued items was tested. For this test, 93 women and 122 men were included in the population sample. As before, a two-tailed test significant to the 5% level was conducted.

A statistically significant difference was found between men's and women's mean discrepancy scores for the male-valued items, thus
rejecting the first half of the null hypothesis.

In the second test, the difference between men's and women's mean discrepancy scores for the female-valued items was tested, using the same sample as was used to test the male-valued discrepancy scores. Once again, a two-tailed test significant to the 5% level was conducted.

In this second test, no statistically significant difference was found between men's and women's mean discrepancy scores for female-valued items. That is, the test found no significant difference between men's and women's discrepancy scores for female-valued items, but a significant difference for male-valued items. Table 22 summarizes the findings of these two tests of the third hypothesis.

**TABLE 22**

HYPOTHESIS 3: SUMMARY OF t TEST COMPARISONS FOR MEN'S AND WOMEN'S MEAN DISCREPANCY SCORES

<table>
<thead>
<tr>
<th>Groups</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male-Valued Items</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>93</td>
<td>5.5671</td>
<td>5.051</td>
<td>3.01</td>
<td>197.81</td>
<td>.003*</td>
</tr>
<tr>
<td>Men</td>
<td>122</td>
<td>3.4760</td>
<td>5.033</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female-Valued Items</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>93</td>
<td>3.3696</td>
<td>5.286</td>
<td>.16</td>
<td>199.97</td>
<td>.870</td>
</tr>
<tr>
<td>Men</td>
<td>122</td>
<td>3.2495</td>
<td>5.385</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05
Hypothesis 4

Compared to younger administrators, older special education administrators will not report a significantly greater discrepancy between their perceptions of the ideal administrator and their evaluations of themselves as administrators (for either male-valued or female-valued items), as measured by an adaptation of the Broverman Sex-Role Questionnaire.

Hypothesis 4 was tested with two 2 X 4 analyses of variance: a first analysis of mean scores for male-valued discrepancy items, and a second analysis of mean scores for female-valued discrepancy items. These mean discrepancy scores were the dependent variables for their respective tests. In each of the two analyses, the age and sex of the respondents were the independent variables.

The 215 respondents were divided into eight groups by age and sex. Women were grouped as follows: 35 years old and younger; 36 to 40 years old; 41 to 45 years old; and over 45 years old. The men were also divided by these criteria. This grouping created cells ranging from 13 members (women 41 to 45 years old) to 39 members (men over 45 years old).

The first analysis of variance (on mean discrepancy scores for male-valued items) produced a significant F ratio for the main effect of sex (as demonstrated by the t test in Hypothesis 3), but not for the main effect of age.

In the second analysis of variance (on mean discrepancy scores for female-valued items), no significant F ratios were produced (see Table
22). The data suggest that age did not have a significant predictive effect upon the mean discrepancy scores of men or women special education administrators. Table 23 summarizes the findings for hypothesis 4.

**TABLE 23**

**HYPOTHESIS 4: SUMMARIES OF TWO-WAY ANALYSES OF VARIANCE MAIN EFFECTS OF AGE AND SEX ON MEAN DISCREPANCY SCORES**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male-Valued Items</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex of Participants (A)</td>
<td>1</td>
<td>183.160</td>
<td>183.160</td>
<td>6.942*</td>
</tr>
<tr>
<td>Age of Participants (B)</td>
<td>3</td>
<td>34.108</td>
<td>11.369</td>
<td>.431</td>
</tr>
<tr>
<td>Interaction (A X B)</td>
<td>3</td>
<td>51.916</td>
<td>17.305</td>
<td>.656</td>
</tr>
<tr>
<td>Error</td>
<td>198</td>
<td>5223.868</td>
<td>26.383</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>205</td>
<td>5545.000</td>
<td>27.049</td>
<td></td>
</tr>
<tr>
<td><strong>Female-Valued Items</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex of Participants (A)</td>
<td>1</td>
<td>.039</td>
<td>.039</td>
<td>.001</td>
</tr>
<tr>
<td>Age of Participants (B)</td>
<td>3</td>
<td>29.729</td>
<td>9.910</td>
<td>.342</td>
</tr>
<tr>
<td>Interaction (A X B)</td>
<td>3</td>
<td>104.202</td>
<td>34.734</td>
<td>1.199</td>
</tr>
<tr>
<td>Error</td>
<td>203</td>
<td>5882.017</td>
<td>28.975</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>210</td>
<td>6016.549</td>
<td>28.650</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

An examination of mean discrepancy scores for these eight groups reveals that men's mean discrepancy scores varied only slightly among the age groups, for both male- and female-valued items. Women's
scores, however, showed far greater range among the age groups, for both male- and female-valued items (see Figure 1).

Figure 1. Interaction of respondents' sex and age upon mean discrepancy scores.
Hypothesis 5

Compared to less experienced administrators, special education administrators with more experience will not report a significantly greater discrepancy between their perceptions of the ideal administrator and their evaluations of themselves as administrators (for either male-valued or female-valued items), as measured by an adaptation of the Broverman Sex-Role Questionnaire.

Hypothesis 5 was tested with two 2X4 analyses of variance: a first analysis of mean scores for male-valued discrepancy items, and a second analysis of mean scores for female-valued discrepancy items. In each of these two analyses, the respondents' sex and years of experience in special education administration were the independent variables. To test this fifth hypothesis, 210 respondents were divided into eight groups by sex and by years of experience. The women were divided as follows: three or fewer years of experience; four to six years of experience; seven to nine years of experience; and ten or more years of experience. The men were divided by the same criteria. This breakdown created eight cells of 22 (10.5%), 45 (21.4%), 18 (8.6%), 8 (3.8%), 18 (8.6%), 26 (12.4%), 32 (15.2%), and 41 (19.5%) respectively.

The first analysis of variance (on discrepancy scores for male-valued items) produced a significant F ratio for the main effect of sex (as demonstrated earlier in Hypothesis 3), but not for years of experience.

In the second analysis of variance (on discrepancy scores for
female-valued items), no significant F ratios were produced. That is, the data suggest that neither the respondents' sex nor years of administrative experience was a good predictor of discrepancy scores for female-valued items. On the basis of these analyses of variance, the fifth null hypothesis was accepted. Table 24 summarizes the findings for this last hypothesis.

TABLE 24
HYPOTHESIS 5: SUMMARIES OF TWO-WAY ANALYSES OF VARIANCE
MAIN EFFECTS OF ADMINISTRATIVE EXPERIENCE AND SEX ON MEAN DISCREPANCY SCORES

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male-Valued Items</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex of Participants (A)</td>
<td>1</td>
<td>179.448</td>
<td>179.448</td>
<td>6.870*</td>
</tr>
<tr>
<td>Years of Administrative Experience (B)</td>
<td>3</td>
<td>10.064</td>
<td>3.355</td>
<td>.128</td>
</tr>
<tr>
<td>Interaction (A X B)</td>
<td>3</td>
<td>152.551</td>
<td>50.850</td>
<td>1.947</td>
</tr>
<tr>
<td>Error</td>
<td>193</td>
<td>5041.214</td>
<td>26.120</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>5438.841</td>
<td>27.194</td>
<td></td>
</tr>
<tr>
<td>Female-Valued Items</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex of Participants (A)</td>
<td>1</td>
<td>.143</td>
<td>.143</td>
<td>.005</td>
</tr>
<tr>
<td>Years of Administrative Experience (B)</td>
<td>3</td>
<td>43.907</td>
<td>14.636</td>
<td>.490</td>
</tr>
<tr>
<td>Interaction (A X B)</td>
<td>3</td>
<td>3.706</td>
<td>1.235</td>
<td>.041</td>
</tr>
<tr>
<td>Error</td>
<td>198</td>
<td>5909.032</td>
<td>29.844</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>205</td>
<td>5956.678</td>
<td>29.057</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05
Years of experience seemed to have a confounding effect upon the male-valued discrepancy scores (see Figure 2). With increasing years of experience, women's discrepancy scores for male-valued items first rose and then declined sharply. Conversely, men's discrepancy scores first declined sharply, then rose sharply, then showed little change. There was no similar effect of experience upon female-valued discrepancy scores.

Figure 2. Interaction of respondents' sex and years of experience in special education administration upon mean discrepancy scores.
CHAPTER V

DISCUSSION

This chapter begins with a summary of the study, followed by a discussion of its limitations, conclusions, and the implications of the study for the practice and future study of special education administration.

Summary

The purpose of the study was to examine perceptions of special education administrators about their work, assessing perceived traits associated with sex-role stereotypes. The intuition for this study was a presumed relationship between how these administrators see their work, and how the larger culture views the traditional male role. Specifically, this presumed relationship has been explored through three research questions:

1) Do men and women special education administrators have a similar view of their professional role?

2) Does the perceived role of the special education administrator more resemble the male sex role than the female sex role?

3) Do women special education administrators tend to perceive themselves differently than men do, in comparison to a shared ideal?

To test the existence of this presumed relationship, the study
selected a stratified random sampling of special education administrators throughout the six New England states. Of the 393 administrators mailed anonymous surveys, 215 usable surveys were returned in time for inclusion in this study.

The survey instrument is an adaptation of the Broverman Sex-Role Questionnaire. The adapted instrument includes 53 of the original 82 items, and a modification of the original 60 point scale. Of these 53 items, 43 were found to be sufficiently reliable for inclusion in the three male-valued or three female-valued scales. The findings are summarized below.

**Hypothesis 1**

Men and women respondents reported no statistically significant differences in their perceptions of the "ideal" traits for the special education administrator, supporting the first null hypothesis. Pertaining to the individual items included in the analysis, some specific differences between men's and women's responses occurred. Men reported mean item scores at least 2.5 points higher than women's mean item scores on six items (four male-valued and two female-valued). Women reported mean item scores at least 2.5 points higher than men's mean item scores on three items (two male-valued and one female-valued). Thus, differences of this magnitude occurred in about 20% of the items.

**Hypothesis 2**

Respondents' mean "ideal" scores showed a statistically
significant difference between ratings on male-valued and female-valued items, rejecting the second null hypothesis. The respondents reported 70% of their 20 highest "ideal" item scores on male-valued items, and these scores clustered within an 11-point range (see Table 4-3). While the two highest ranked traits were female-valued, only six female-valued traits were included in the top 20.

The study attempted to include an equal number of male-valued and female-valued items. However, the final survey ratio favored male-valued items 1.3:1. The elimination of 10 less reliable items from the data analysis increased that ratio to 1.7:1. It seems possible that the proportionately greater number of male-valued items affected both the \( t \) test result and the ratio of items in the top 20.

A point worth repeating, however, is that the design of the instrument attempted to reach a balance of male-valued to female-valued items. As discussed in Chapter 3, criteria to establish the instrument's face validity pre-empted a greater number of female-valued items. It is important to note also that seven female-valued items were eliminated for low reliabilities, while only three male-valued items were similarly excluded. That is, these items were found to be least related to their respective scales as measurements of administrative traits. Therefore, the factors relevant to the instrument's disproportion of male-valued to female-valued items seem to support, rather than counter, the correlation between perceptions of the male sex role and the role of the special education administrator.
Hypothesis 3

The third hypothesis predicted no statistically significant difference between men and women in terms of discrepancies between "ideal" and "self" scores. For female-valued items there was no statistically significant difference. For male-valued items, the difference was statistically significant, thus rejecting the third null hypothesis.

Three of the four discrepancy scores clustered between 3.2 and 3.5: men's and women's discrepancy scores for female-valued items (3.25 and 3.37 respectively), and men's discrepancy scores for male-valued items (3.48). The fourth discrepancy score, for women on male-valued items, was substantially greater (5.57). Because the respondents associated the role of special education administrator more closely with the traits of the traditional male role than those of the traditional female role, this larger discrepancy score carries a particular significance. Compared with the men, the women respondents tended to rate themselves lower on many of the traits which they considered most important for the role of special education administrator. Among the 43 items, men reported mean "self" scores at least 2.5 points higher than women's scores for 16 traits (14 male-valued and 2 female-valued). For only two traits (both female-valued) did women rate themselves at least 2.5 points higher than men's comparable scores. Women's substantially lower "self" scores on 14 male-valued items accounts for the statistically significant difference in discrepancy scores for male-valued items.
Hypothesis 4

The fourth null hypothesis predicted that age was not a significant influence on the discrepancy scores of special education administrators. On the basis of the data, this hypothesis was accepted.

However, age did seem to affect women's mean discrepancy scores differently than men's. Men's scores showed little variation among the age groups, for both male-valued and female-valued items (ranging from a low of 2.92 to a high of 3.80). In contrast, for both male-valued and female-valued items, women's scores were significantly lower for women 41 to 45 years old (see Figure 4-2). That is, women who were 41 to 45 years of age tended to rate themselves significantly closer to their "ideal" traits than any other age group of women respondents for male-valued items, and significantly closer than any age group of women or men on female-valued items.

Three explanations for this relative drop in discrepancy scores were investigated and discarded. These 13 women did not tend to share similar numbers of years of experience. Eleven of these women reported working in districts smaller than 2,500 children (whereas women from these smaller districts tended to report higher discrepancy scores). No individual scores accounted for the overall lower mean score.

A fourth possible explanation for the lower discrepancy scores in this one group is that this relatively small number of women created a statistical anomaly, unrelated to any measured variable. That is, another random sampling of this size would not be expected to repeat comparable scores. Reliable scores would be possible only from a
larger number of respondents.

Another possibility is that a replication of this study to include a larger number of respondents would produce data similar to those reported here. That is, the lower discrepancy scores for this group may be related to factors that are common to women 41 to 45 years old.

In general, the relatively small numbers of respondents in several of the eight age-by-sex cells may have contributed to the failure to reach significance in the fourth hypothesis. It is even more likely that the smallest cells may have distorted the overall "shape" of the data, particularly for women respondents.

Hypothesis 5

The last null hypothesis predicted that the respondents' years of experience were not a significant influence on the discrepancy scores of men and women in special education administration. On the basis of the data, the hypothesis was accepted.

Pertaining to scores for female-valued items, respondents with one to three years of experience in special education administration reported slightly higher discrepancy scores than were reported among respondents with more experience. These higher scores are predictable, as perceived competence (as measured by discrepancy scores) is likely to increase with a few years of experience.

Unlike the scores for the female-valued items, the male-valued discrepancy scores for the least experienced respondents were not slightly higher than those reported by respondents with more experience. Also, discrepancy scores for male-valued items suggested a
significant difference in perception between men and women with four to six years of experience. That is, for the male-valued items, men with four to six years of experience (26 respondents) reported the least amount of discrepancy between their perceptions of the "ideal" and their perceptions of themselves (2.124), while the comparable group of women (45 respondents) reported the greatest perceived discrepancy (6.496). The wide difference in discrepancy scores for men and women at this experience level was neither a function of age nor any other measured demographic variable. No individual scores accounted for the difference.

Male-valued discrepancy scores for respondents with seven or more years of experience suggested little difference in the perceptions of men and women. These more experienced men did not report discrepancy scores that were significantly different from the least experienced group of men (as would be expected). On the other hand, these more experienced women did report discrepancy scores that were significantly lower than those reported by the least experienced group of women (see Figure 4-2).

As with the size of the cells based on age, the relatively small numbers in several of the "experience" cells may have contributed to the failure to reach significance in this fifth hypothesis. Again, it is even more likely that the smaller cells may have distorted the overall "shape" of the data regarding the influence of years of experience upon discrepancy scores.
Limitations

In discussing the study's results, this summary has noted several limitations in its methodology. Three of these limitations focus on the scope of the study. First, only 215 special education administrators were included among the more than 650 in New England, and the several thousand throughout the country. Second, by selecting respondents only from the New England states, the study chose not to examine the influence of region upon perceptions. While 215 may be a healthy representation of special education administrators from New England, regional influences cannot be discounted without a much larger national study.

The third limitation in scope is built into the instrument itself. The measurement of the female-valued scales is limited by the inclusion of only 16 items in the data analysis. However, as discussed earlier, this limitation resulted from the difficulty in including pertinent, reliable female-valued items. Therefore, the existence of this limitation was examined as part of the findings of the study.

Four additional methodological limitations have to do with the design of the study. As an ex post facto, non-experimental design, the study could not control for unnamed variables which may have influenced or eclipsed the variable(s) under study. This limitation was accentuated by the process of data collection. Because the design relied upon the respondents' voluntary, non-renumerated efforts to complete and return the survey, a particular yet unspecified bias was built into the study.
The collection of data relied upon the respondents' reports of perceived traits along a number of 36-point trait continua. Perceptions of traits may or may not correspond to actual traits. However, it is the purpose of this study to examine the influences of perceptions, not traits. A self-report measurement was used in this study, despite the recognition that consistent use of the scales among respondents could not be safe-guarded. This measurement inconsistency pertains to the distinction of ordinal-level from interval-level data. Because this general instrument design has been widely accepted in social science research for interval-level statistical procedures, parametric statistics were used in this study (Nie, et al., 1975).

One conceptual limitation derives from the decision to adapt an instrument for which norms were developed over ten years ago. Because changes in sex-role attitudes may have occurred in the past ten years, the norms established for the Broverman Sex-Role Questionnaire may not accurately reflect contemporary perceptions of male and female sex roles. However, as discussed in Chapter 2, the existence or extent of changing sex-role perceptions has not been consistently determined.

Conclusions

The discussion of conclusions focuses upon the three research questions posited earlier.

1) Do men and women special education administrators have a similar view of their administrative role?
The analysis of mean "ideal" scores suggests that men and women special education administrators share a common perception of their particular administrative role. This finding is consistent with the role theory literature discussed in Chapter 2.

The differences in perceptions reported by the men and women respondents (at least 2.5 on 20% of the items) suggest the existence of some differences in role perceptions. However, these data were not extensively analyzed for intervening influences. While it seems likely that the differences are gender-related, additional demographic considerations (e.g., the size of the respondents' school systems) may also account for some discrepancies in role perceptions.

The extent to which the respondents reported similar role-perceptions is striking, given the relative newness of and variability among positions in special education administration (Burrello & Sage, 1979). However, as discussed in Chapter 2, perceptions of one's role involve shared expectations and shared meanings of behavior (Janeway, 1971). Traditional roles are learned in childhood; newly developed roles (e.g., special education administrator) must also be learned--from borrowed older roles. Therefore, it is likely that the reported similarity among perceptions of the special education administrative role results, in large part, from shared notions of the "school administrator" learned in childhood.

This role, in turn, has been modeled after the nineteenth century industrial manager. As educational reformers called upon our schools to develop "scientific" and "child-centered" approaches to schooling,
and to further social reform (Cremin, 1964; Katz, 1971), the nineteenth
century progressivist faith in industrial efficiency led to the con-
solidation of America's schools under the administration of men trained
in industrial management (Zeigler, Tucker, & Wilson, 1976). According
to Lawrence Cremin, "as schools and school systems became larger,
bureaucracy increased; school administration became a separate profes-
sional function rather than a supplementary responsibility of the
senior teachers (1964, p. 308). Thus, in the name of "modernization"
and "efficiency," the pedagogical impulse toward child-centered
education was over-powered by the "trend toward administrative
dominance" (Lynd & Lynd, 1937, p. 206) that continues to define our
schools.

Given the influence of older administrative roles upon the new,
one would predict extensive similarities among perceptions of all
school administrative roles, rooted in the model of the industrial
manager. A comparison of this study with similarly designed studies
of managers in business suggest the validity of this prediction
(Schein, 1973, 1975). It is arguable, therefore, that role perceptions
among special education administrators are shaped not only by the
essential tasks of the position, but by historical precedents over a
century old that may or may not pertain to special needs children.
The relative homogeneity of the perceptions reported in this study
supports the credibility of this position.

2) Does the perceived role of the special education administra-
tor more resemble the male sex role than the female sex role?
The analysis of the "ideal" scores suggests that special education administrators perceive their role in terms significantly more like the male sex role than the female sex role. This finding also is consistent with the results of similarly designed studies of business administrators.

However, Schein found that men and women middle managers associated certain "female traits" with "successful middle managers" (Schein, 1973, 1975). These traits are essentially those female-valued traits included in the 20 traits most highly valued by the sampled special education administrators: aware of the feelings of others, understanding of others, helpful to others, careful, kind, and warm in relations with others. Thus, a small cluster of traditional "female traits"--having to do with supportive relationships--are commonly associated with the "administrator" role in its broader sense.

A comparison of "administration" with "leadership" is pertinent to this discussion. While "management" (or "administration") is not synonymous with "leadership," the leadership or supervision of a staff is seen as the primary characteristic of organization management (Finch, Jones, & Litterer, 1976). Studies of effectiveness among school administrators have also focused upon leadership, as discussed in Chapter 2. Essentially, the broader array of administrative tasks (e.g., budgets, plant maintenance, purchasing, planning) are performed to facilitate the work of a staff, and are performed in cooperation with a staff. Therefore, leadership theory provides the theoretical framework for organizational management.

Situational Leadership Theory divides leadership behavior into the

The Burrello and Sage analysis of the special education administrative role can be viewed within a similar behavioral framework. Of their five dimensions (discussed earlier in Chapter 2), two emphasize interpersonal skills: facilitator-trainer and advocate. Of the remaining three dimensions, two emphasize the importance of task or initiating structure: policy planner and program manager. The fifth dimension (monitor-evaluator) is described to emphasize both of the leadership domains: hence, "relationship-management skills" (1979, p. 1976.

An examination of these domains reveals that the traits within the behavioral dimension of task (or initiating structure) are essentially male-valued traits. Similarly, the traits within the behavioral dimension of relationship (or consideration) are essentially female-valued traits. Theoretically, then, successful leadership (in special education as well as business) is conceived as a balance of two behavioral domains: one traditionally "male" and one traditionally "female." However, men and women in both management fields ascribe significantly more "male" traits than "female" traits to their actual roles.

Because men have traditionally dominated administrative fields, and continue to hold a disproportionately large number of the
administrative positions, it is not wholly surprising that the
various administrative roles have been conceived in male terms. What
is largely overlooked is the discrepancy between the theories of
management, and managers' ideals.

It is important to consider here the demographics of the respondents for the present study. Most reported previous positions in
special education teaching, counseling, or some related field that
emphasizes patience and understanding in working with children who
pose more than the normal range of problems. Even assuming that
interest in educational leadership creates a sample of unusually
"task-oriented" individuals, it is arguable that their professional
histories provide a balancing "relationship orientation." Therefore,
those who enter special education administration are likely to embody
relatively comparable tendencies toward task and relationship behaviors.

From this study of special education administrators, then, the
theory-reality discrepancy is complicated by the unfulfilled expectation
that these particular administrators are well-suited to implement the
theory underpinning their field. Research reveals related discrep-
ancies which provide a larger context for this problem.

Kohl and Marro found that special education administrators tended
to cite "supervision and coordination of instruction" as the most
important aspect of their work, with "administration" a close second
(1972). However, in comparing ideal and actual time spent in these
responsibilities, the respondents reported too little time spent in
"supervision" and too much time spent in "administration." "Central
office demands" was most frequently named as the obstacle preventing
the respondents from allocating time in proportion to the perceived importance of the tasks. In other words, these administrators experienced a common discrepancy between their priorities and their behaviors as a function of the larger administrative structure in which they performed their roles. While staff supervision (as defined by leadership theory) involves both task and relationship behaviors, the component of supervision most apt to be lost under organizational pressure is "relationship." Typically, "administrative demands" reduce personal and supportive contact with staff, as "supervision" increasingly relies upon absentee monitoring of deadlines, forms, and adherence to policy. This common scenario in schools is typically attributed to "central office demands." Role theory provides a more useful analysis.

It is an accepted pedagogical precept that modeling is the most powerful teaching strategy. Our early learning of roles provides us with the shared meanings and expectations through which we come to understand our world. We are likely to carry through our adult lives the behaviors and attitudes we learn as small children. Therefore, school administrators have tended to learn "how to be school administrators" from the models they observed as children. Traditionally, as discussed earlier, these models have been shaped by the male-oriented industrial manager mold. It is also from this mold that "central office demands" are stamped. Over the years, this mold has undergone relatively slight modifications, given the extent of our inquiries into effective teaching. Thus, despite an attempted theoretical
reorientation in graduate school, and despite a professional orientation toward nurturant behavior, the special education administrator inherits a structure and a childhood learning experience that tell him (and sometimes her) about "the appropriate role."

3) Do women in the role of special education administrators tend to perceive themselves differently than men do, in comparison to a shared ideal?

The analysis of discrepancy scores suggests that women special education administrators do perceive themselves differently than men do, compared to a shared "ideal." This "difference" derives from women's "self" evaluations on male-valued items, traits perceived to have the greatest importance to the role. While a few points of discrepancy may seem slight, these scores must be viewed within the context of the overall small discrepancies reported by the respondents.

The greatest differences between the self-perceptions of men and women respondents point to women's lower self-estimation on traits believed to be central to the special education administrative role: leadership, practicality, consistency, calmness, realism, tenacity, and self-confidence. While the literature suggests that women tend to be taught "less important" behaviors, attitudes, and values than men (e.g., Janeway, 1971), research suggests no overall performance differences between men and women as successful school administrators.

Thus, women's reported lower self-concepts may have more to do with perceived differences than actual ones. Research supports the
speculation that these lower "self" scores are related to a vestigial belief in women's comparative lack of certain traditionally male traits (Massengill & DiMarco, 1979; Schein, 1975). These women have learned not only that they have entered a "male" profession; they have also learned that they are relatively "lacking" in the requisite traits. The issue, then, becomes one of professional confidence, not competence: women respondents reported a markedly lower mean score than men on "self-confidence."

Women's "self" scores tended to be higher than men's only on female-valued items. The one exception to this was "intelligence": women reported a higher "self" score than men on this male-valued item. While the difference was not large enough to achieve statistical significance, a social significance pertains to this discussion. Studies of academic achievement have generally found that males do not surpass females until some time in high school, from which time females' scores continue to lag. These studies have concluded that the differences have to do with social forces, not innate differences in the sexes (Maccoby & Jacklin, 1974). Given the ascribed importance of this trait to the role of special education administrator (a rank of 7 among 43), women's relatively high self-perception of intelligence is important to note. That women rank themselves at least as intelligent as men's perceptions of themselves may suggest one area of change in sex-role stereotypes. At minimum, these rankings suggest a hopeful characteristic about the self-concepts of women entering school administration.
Men reported a mean "self" score on the female-valued items virtually equivalent to that reported by women. Given their professional histories and professional role, it is likely that the respondents included a group of men for whom comparatively high "self" scores on the female-valued items is a predictive factor. Conversely, the women respondents may not see themselves as characteristically strong in the female-valued traits as the men view themselves in the male-valued traits. Women's "self" scores may have been affected by a residual tendency to low "self" ratings, reflecting an overall lower self-confidence or sex-typed modesty (Bardwick & Douvan, 1971). On the other hand, research suggests that, compared to women in general, women managers tend to demonstrate more "masculine" traits, which may reflect a perceived decrease in typically "feminine" traits (Schein, 1975). Among others, Janeway has discussed the relative difficulty in acquiring a role-trait that is highly valued, as opposed to relinquishing that which is not (1971, 1974). Thus, administrative women may find it easier to divest themselves of a trait with seemingly low value (and to perceive such a divestiture), and exceedingly more difficult to "acquire" valued traits (or, to perceive such an "acquisition").

Women 41 to 45 years old tended to report significantly lower discrepancies than any other group of women. As discussed previously, the small size of this cell (13 women) limits speculation, and only two are proposed here.

Women in their early forties are often recently relieved of the
major child-rearing responsibilities associated with younger children. Given the limited knowledge of these women's families, it is plausible that these women had experienced a decrease in family responsibilities that facilitated a perceived decrease in discrepancy as a result of fewer competing professional and family demands. As discussed in Chapter 2, studies of role conflict among professional women support this speculation (Truett, 1979).

It is also plausible that the phenomenon of lower scores relates to historical—rather than life-cycle—factors. For example, these women were probably in college around 1960 (1956-1965). The political or social currents of that time (e.g., the Civil Rights Movement, the birth control pill, the Kennedy administration, the Free Speech Movement) may have provided these women with unique role options or attitudes. These same women were infants or toddlers during World War II. They learned their earliest lessons about sex roles seeing women—including their mothers—endorsed for assuming a large realm of traditionally male roles, including occupational roles.

Speculations are more difficult about the broad difference between the male-valued discrepancy scores for men and women with four to six years of experience. It can be assumed that variables in their professional careers created the marked gap in these men's and women's scores. It is noteworthy that this dichotomy was in the direction of less discrepancy perceived by men and greater discrepancy perceived by women. A partial explanation again derives from the role conflict literature. As discussed in Chapter 2, studies have found that women
in business management tend to reject a male-oriented standard of their professional roles after the first few years. A similar rejection by this particular group of women respondents might result in higher discrepancy scores. A sense of competence experienced by the corresponding group of men in this particular phase of their career would account for their lower discrepancy scores. If promotions and upward career moves are likely for administrators with four to six years of experience, the dichotomy in discrepancy scores may present a serious challenge to women in this field.

The findings of this study underscore the tenacity and pervasiveness of learned sex roles. The study suggests that women in special education administration adhere to an ideal that closely approximates that of their male peers: an ideal shaped, in large part, by an out-moded "male" model. Furthermore, the findings point to a difference in women's professional self-esteem, and support the position that their lack of self-confidence pertains to a learned social context (i.e., where one "belongs" has to do with one's sex) and not to actual measures of competence.

Finally, the findings suggest that women special education administrators tend to accrue fewer of the professional marks of success: higher salaries, larger domains, more advanced degrees. In particular, the data suggest that these women tend to receive lower salaries than men for comparable positions. The size of the sample was not sufficiently large to allow a salary comparison while
simultaneously examining all relevant variables, and unspecified variables may also be pertinent. However, with three pertinent variables sequentially factored into the comparison, the data consistently revealed that women tended to receive lower salaries than men.

This finding is consistent with recent studies of comparative income levels (Sewall, 1981). It has been suggested that women receive lower salaries than men because they have not learned competitive negotiating skills (Epstein, 1973) and are more frequently passed over for promotions (Rosen & Jerdee, 1974a). These suggestions support the conclusion that, compared to men, women tend to have lower expectations of compensation for their skills. Thus, women continue to be the victims of their own low professional self-esteem.

However, since school systems are presumed to control for these factors through fixed salary schedules, the data reported in this study raise questions about the factors that serve to channel women special education administrators into lower paying positions. It is arguable that the subtle forces that perpetuate this apparent channeling process are an influence in women's under-representation in school administration. These same factors constitute the messages about "appropriate role" which tend to dissipate women's professional self-confidence. That these messages are not clear and distinct does not rule out their influence. In fact, that the messages are likely to be subtle and diffuse makes them more pervasive, more difficult to isolate and counteract, and less likely to be taken seriously by the profession.
Implications

The final consideration for this study is its implications for training special education administrators, and for further research. Each is considered below.

Training

Overall, the development of clear objectives for special education administration training has received relatively little attention (Burrello & Sage, 1979). In terms of the role continuum for special education administration, training programs have tended to focus on the end that is more clearly defined—program management—while the other end remains poorly focused and relatively ignored, because it is perceived as inherently conflictual with traditional administrative functions. In addition, many alternative routes exist to the special education administrator's position.

Placed along the poorly focused dimension of the role continuum are those "sub-roles" that emphasize skills and traits generally unrecognized as part of the administrative domain: what has come to be associated with female-valued traits. The findings of this study can inform the process of defining and legitimizing that unfocused end of the continuum.

Furthermore, simply to bring women into special administration has been shown to be a necessary step but an insufficient solution to the problem of women's under-representation in the field. The findings of this study can help to develop more effective strategies to counter the social forces that serve to weaken women's self-perceptions as
These two training issues are briefly examined here.

Clarifying the role continuum. It would be a harmful oversimplification and a perpetuation of sex-role stereotypes to invoke the terms "masculine" and "feminine" upon the various aspects of the special education administrative role. However, the respondents' selection of ideal traits emphasizes the extent to which the "management" end of the continuum is more clearly understood. The respondents also highlighted the importance of the role components that are less focused. To provide training for these components, training programs must refine their conceptualization of the role. The role is more usefully conceptualized to include two overlapping trait domains, as shown here:

For such a conceptualization, training programs can use this study to begin to define the necessary trait domains as they pertain to the identified sub-roles.

It should be stressed that, while perception is an inherent aspect of role, the perceptions identified in this study are not intended to be equated with the role of the special education administrator. More
research is needed in that area, and is discussed below (see Research).

Given the importance of modeling (and therefore "coaching") in the learning process, and given the tenacity of early sex-role learning, training programs for special education administrators need to review not only the curriculum, but the methodology of their instruction. The importance of a closely supervised internship deserves careful consideration.

**Strengthening women's administrative self-concepts.** As stated previously, an infusion of women into special education administration does not alone bring women to equal status and numbers with men. As demonstrated by this study, women are likely to experience fewer tangible aspects of success, and intangibly diminishing self-confidence. Training for women special education administrators must focus on both of these aspects, and help women to develop effective countering strategies. This training cannot be reduced to one "cookbook" strategy to be used with all women. While women endure some common social forces, an effective training program must recognize women's individual experiences, adaptive coping strategies, and personal values.

This study suggests some specific notions relevant to this training. First, women need to be made aware of their actual status in special education administration. Second, women need to assess their professional ideals and to study their implications. Such a study would be informed by role and sex-role theory, as well as the theory of special education administration. Third, women need to assess their professional traits, define their priority needs, and
use concrete strategies to meet those needs. The model of the educational plan and team meeting approach would be appropriate here.

Research

1) A replication of this study should be conducted, following an investigation of current sex-role norms. It would be important to choose another, broader geographic area, so as to minimize the influence of region as an intervening variable. An important question would be the effects, if any, of updated sex-role norms on men's and women's scores. A second question would be the relationship, if any, between "success factors" (e.g., salary, degree, domain) and scale scores for men and for women.

2) This study has raised questions about perceptions of the special education administrative role. An investigation of special education administrators should be designed for a broader understanding of role traits, and their perceived importance to men and to women administrators. The role typology developed by Burrello and Sage (1979) might provide a useful starting point for trait definition. Interviews and open-ended questions would be effective investigation strategies for the development of a survey instrument.

3) While this study has lent support to the existence of a special education administrative role, it would be useful to survey men and women administrators separately about their notions of the traits of the ideal male special education administrator and of the ideal female special education administrator. Such a study should meet the considerations presented previously in the first research suggestion.
The important question for such a study is the viability of an alternative administrative role paradigm that is more compatible with women's heretofore undervalued strengths.
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APPENDIX A

Adapted Broverman Sex-Role Questionnaire

a. cover letter

b. survey instrument
Special education administrators work in a demanding field. Perhaps some of the stress begins with conflicting expectations about who we are and what we do.

You are one of 400 special education administrators being surveyed about the profession. Having administered special education programs for several years, I am using this survey to examine some of the goals and challenges shared by administrators in the field. Your responses will be helpful to me, and I believe this study will increase understanding of our professional role.

Participants in a pilot study found the survey provocative and useful, but not difficult. They also report that it takes no longer than 30 minutes to complete. I assure you that your responses will be completely confidential. The survey is coded only to keep track of returns.

Use the enclosed envelope to return your survey. A prompt return will be appreciated, and will save me the cost of a reminder. If you have any questions, please drop me a note. I'll call you immediately and send you another envelope.

Thank you very much for your help.

Sincerely,

Denise Holmes

P.S. If you want an abstract of the results of the study, please check the box at the end of the survey.
A SURVEY OF SPECIAL EDUCATION ADMINISTRATORS IN NEW ENGLAND

a research project conducted under the guidance of the Department of Special Education, School of Education, University of Massachusetts, Amherst, Massachusetts

This survey examines the perceptions of special education administrators about their profession. Please answer all questions. You will probably complete the survey in only 30 minutes. Include any additional comments in the margins or at the end of the survey. Thank you for your help. I have enclosed an envelope for your convenience. Please return this survey promptly to

Denise Holmes
SPED Administrator Survey
974 West Boulevard
Hartford, CT 06105
A SURVEY OF SPECIAL EDUCATION ADMINISTRATORS IN NEW ENGLAND

Part A - Directions
This study is designed to measure certain ideas held by special education administrators about their profession. Below are 53 scales to measure a variety of traits commonly associated with people in general. On each scale, place a slash (/) through the dot or number that indicates your perception of the ideal trait for a special education administrator. Then place an A (for "administrator") above the slash.

Example
always watches the time 1...2/3...4...5...6...7...8 never watches the time

PLEASE MARK ALL 53 SCALES.

1. very practical 1...2...3...4...5...6...7...8 very impractical
2. not at all independent 1...2...3...4...5...6...7...8 very independent
3. not at all consistent 1...2...3...4...5...6...7...8 very consistent
4. very emotional 1...2...3...4...5...6...7...8 not at all emotional
5. very realistic 1...2...3...4...5...6...7...8 not at all realistic
6. not at all idealistic 1...2...3...4...5...6...7...8 very idealistic
7. almost never hides emotions 1...2...3...4...5...6...7...8 almost always hides emotions
8. very subjective 1...2...3...4...5...6...7...8 very objective
9. mainly interested in details 1...2...3...4...5...6...7...8 mainly interested in generalities
10. not at all easily influenced 1...2...3...4...5...6...7...8 very easily influenced
11. not at all talkative 1...2...3...4...5...6...7...8 very talkative
12. very grateful 1...2...3...4...5...6...7...8 very ungrateful
13. doesn't mind at all when things are not clear 1...2...3...4...5...6...7...8 minds very much when things are not clear
14. not at all excitable in a minor crisis 1...2...3...4...5...6...7...8 very excitable in a minor crisis
15. very strict 1...2...3...4...5...6...7...8 not at all strict
16. very blunt 1...2...3...4...5...6...7...8 very tactful
17. not at all able to devote self to others 
18. very gentle 
19. very helpful to others 
20. not at all competitive 
21. very logical 
22. not at all skilled in business 
23. very direct 
24. not at all kind 
25. willing to accept change 
feeling not easily hurt 
26. not at all adventurous 
very Aware of the feelings of others 
27. not at all intelligent 
28. not at all interested in own appearance 
can make decisions easily 
29. gives up very easily 
30. very shy always does things without being told 
31. almost never acts as a leader 
32. never worried 
33. very neat in habits 
34. very quiet 

very able to devote self to others 
very rough 
not at all helpful to others 
very competitive 
very illogical 
very skilled in business 
very indirect 
very kind 
very willing to accept change 
feelings easily hurt 
very adventurous 
not at all aware of the feelings of others 
very intelligent 
very interested in own appearance 
has difficulty making decisions 
never gives up easily 
very outgoing 
never does things without being told 
almost always acts as a leader 
always worried 
very sloppy in habits 
very loud
<table>
<thead>
<tr>
<th>Number</th>
<th>Trait Description</th>
<th>Scale 1</th>
<th>Scale 2</th>
<th>Scale 3</th>
<th>Scale 4</th>
<th>Scale 5</th>
<th>Scale 6</th>
<th>Scale 7</th>
<th>Scale 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>39.</td>
<td>very careful</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>40.</td>
<td>not at all self-confident</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>41.</td>
<td>always sees self as running the show</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>42.</td>
<td>very good sense of humor</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>43.</td>
<td>not at all understanding of others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>44.</td>
<td>very warm in relations with others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>45.</td>
<td>not at all ambitious</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
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<tr>
<td>46.</td>
<td>able to separate feelings from ideas</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
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<tr>
<td>47.</td>
<td>very uncomfortable when people show emotions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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<tr>
<td>48.</td>
<td>very sociable</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
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<td>49.</td>
<td>expresses tender feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
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<td>8</td>
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<td>50.</td>
<td>very affectionate</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
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<td>51.</td>
<td>very conventional</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
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<td>52.</td>
<td>very assertive</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
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<tr>
<td>53.</td>
<td>very impulsive</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
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</table>

**Part B - Directions**
Please go back through the scales one more time. For each scale, place a slash (/) through the dot or number that indicates what you think you are like in your work as a special education administrator. Then place an S (for "self") above the slash.

**Example**

*always watches the time*

\[ \overset{S}{\text{1.2.3.4.5.6.7.8}} \]

never watches the time

\[ \text{1.2.3.4.5.6.7.8} \]

**PLEASE RE-MARK ALL 53 SCALES.**

**Part C (Please turn the page)**
Part C - Directions
These final 12 questions ask for background information. Please answer each of them.

1. I have been a special education administrator for ____ years. (Write in the number of years, including this one.)

2. My title is (Circle the letter that most closely applies.)
   A. DIRECTOR OF SPECIAL EDUCATION (or SPECIAL SERVICES)
   B. SUPERVISOR OF SPECIAL EDUCATION (or SPECIAL SERVICES)
   C. COORDINATOR OF SPECIAL EDUCATION (or SPECIAL SERVICES)
   D. DIRECTOR OF PUPIL PERSONNEL
   E. OTHER (specify) __________

3. I hold certification in (Circle all that apply.)
   A. SPECIAL EDUCATION ADMINISTRATION
   B. REGULAR EDUCATION ADMINISTRATION
   C. SPECIAL EDUCATION TEACHING
   D. OTHER (specify) __________
   E. OTHER (specify) __________

4. I work in a school system that serves (Circle one letter.)
   A. FEWER THAN 2,500 CHILDREN
   B. 2,500 TO 4,999 CHILDREN
   C. 5,000 TO 9,999 CHILDREN
   D. 10,000 TO 14,999 CHILDREN
   E. 15,000 TO 19,999 CHILDREN
   F. 20,000 OR MORE CHILDREN

5. I hold a full-time position as a special education administrator. (Circle one letter.)
   A. YES
   B. NO (Please list any other positions.) __________

6. I taught for ____ years before entering administration. (Write in number of years.)

7. Currently my highest degree is (Circle one letter.)
   A. BACHELOR'S DEGREE
   B. MASTER'S DEGREE
   C. MASTER'S DEGREE PLUS 30 GRADUATE CREDITS (OR CAGS, ETC.)
   D. DOCTORATE
   E. OTHER (specify) __________
8. Currently my salary as a special education administrator is (Circle one letter.)
A. UNDER $15,000
B. $15,000 TO $19,999
C. $20,000 TO $24,999
D. $25,000 TO $29,999
E. $30,000 OR HIGHER

9. Currently my family (living with me) includes (Circle one letter.)
A. NO SPOUSE AND NO CHILDREN
B. NO SPOUSE, BUT CHILDREN
C. A SPOUSE, BUT NO CHILDREN
D. A SPOUSE AND CHILDREN
E. OTHER (specify) ________________________________

10. I am (Circle one letter.)
A. UNDER 30 YEARS OLD
B. 30 TO 35 YEARS OLD
C. 36 TO 40 YEARS OLD
D. 41 TO 45 YEARS OLD
E. 46 TO 50 YEARS OLD
F. 51+ YEARS OLD

11. My sex is (Circle one letter.)
A. FEMALE
B. MALE

12. I am employed in the state of (Circle one letter.)
A. CONNECTICUT
B. MAINE
C. MASSACHUSETTS
D. NEW HAMPSHIRE
E. RHODE ISLAND
F. VERMONT

Any comments you would like to make? Your comments about your profession or about this survey will be taken into account.
I would like an abstract of the survey results and have written my name and address here:

______________________________

______________________________

Thank you very much for your help. Please use the enclosed envelope to mail the completed survey to the address on the front cover.
APPENDIX B

November 1982 Field Test

a. cover letter

b. survey instrument
November 18, 1982

Dear

I would like 20 minutes of your help. I am conducting a field test for my dissertation study, using a questionnaire revised from an earlier version. The attached survey (in yet another revision) will be sent to about 400 special education administrators, and I'll be analyzing the differences between men's and women's responses. At this point, I need to streamline the format and content. Your 20 minutes will help me do that.

Please fill out Parts A and B (you can skip Part C) of this form as soon as possible, and return it to me with any suggestions or comments you wish to make. If something is not clear, or could be improved, I really want to know.

As you read the instructions for Part A, mentally substitute your own administrative title for the words "special education administrator." In other words, you will complete Part A for the ideal of your administrative position.

When you complete Part B, please make the same mental substitution.

One last note: your initial reaction to each item is likely to match your more carefully deliberated response. So work your way through this quickly!

Thank you in advance for your help. Please complete this form at your earliest convenience. Needless to say, I am eager to complete this phase of the study. Thanks again . . . maybe some day I can return the favor.

Sincerely,
SURVEY OF SPECIAL EDUCATION ADMINISTRATORS

Part A - Directions
This study is designed to measure certain ideas held by special education administrators about their work. Below are fifty-five scales to measure a variety of traits commonly associated with people in general. On each scale, place an "A" (for "administrator") in the space that represents your perception of the ideal trait for a special education administrator.

Example
always watches the time _ _ _ _ A _ _ _ _ _ never watches the time

8. very subjective / / / / / / / / very objective
9. mainly interested in details / / / / / / / / mainly interested in generalities
10. not at all easily influenced / / / / / / / / very easily influenced
11. not at all talkative / / / / / / / / very talkative
12. very grateful / / / / / / / / very ungrateful
13. doesn't mind at all when things are not clear / / / / / / / / minds very much when things are not clear
14. not at all excitable in a minor crisis / / / / / / / / very excitable in a minor crisis
15. not at all strict / / / / / / / / very strict
16. not at all able to devote self to others / / / / / / / / very able to devote self to others
17. very blunt / / / / / / / / very tactful

1. very practical / / / / / / / / very impractical
2. not at all independent / / / / / / / / very independent
3. not at all consistent / / / / / / / / very consistent
4. very emotional / / / / / / / / not at all emotional
5. very realistic / / / / / / / / not at all realistic
6. not at all idealistic / / / / / / / / very idealistic
7. almost never hides emotions / / / / / / / / almost always hides emotions

PLEASE MARK ALL 55 SCALES.
<p>| 18. very gentle | very rough |
| 19. very helpful to others | not at all helpful to others |
| 20. not at all competitive | very competitive |
| 21. very logical | very illogical |
| 22. not at all skilled in business | very skilled in business |
| 23. very direct | very indirect |
| 24. not at all kind | very kind |
| 25. not at all willing to accept change | very willing to accept change |
| 26. feelings not easily hurt | feelings easily hurt |
| 27. not at all adventurous | very adventurous |
| 28. very aware of the feelings of others | not at all aware of the feelings of others |
| 29. not at all intelligent | very intelligent |
| 30. not at all interested in own appearance | very interested in own appearance |
| 31. can make decisions easily | has difficulty making decisions |
| 32. gives up very easily | never gives up easily |
| 33. very shy | very outgoing |
| 34. always does things without being told | never does things without being told |
| 35. almost never acts as a leader | always acts as a leader |
| 36. never worried | always worried |
| 37. very neat in habits | very sloppy in habits |
| 38. very quiet | very loud |</p>
<table>
<thead>
<tr>
<th>Page 5</th>
</tr>
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<tbody>
<tr>
<td>39. very careful</td>
</tr>
<tr>
<td>40. not at all self-confident</td>
</tr>
<tr>
<td>41. always sees self as running the show</td>
</tr>
<tr>
<td>42. very good sense of humor</td>
</tr>
<tr>
<td>43. not at all understanding of others</td>
</tr>
<tr>
<td>44. very warm in relations with others</td>
</tr>
<tr>
<td>45. not at all ambitious</td>
</tr>
<tr>
<td>46. able to separate feelings from ideas</td>
</tr>
<tr>
<td>47. very uncomfortable when people show emotions</td>
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<td>48. easily expresses tender feelings</td>
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<td>49. very sociable</td>
</tr>
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<td>50. very affectionate</td>
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<tr>
<td>51. very conventional</td>
</tr>
<tr>
<td>52. very assertive</td>
</tr>
<tr>
<td>53. very impulsive</td>
</tr>
<tr>
<td>54. very feminine</td>
</tr>
<tr>
<td>55. very masculine</td>
</tr>
</tbody>
</table>

Part B - Directions
Please go back through the scales one more time, and place an "S" (for "self") in the space that represents what you think you are like in your work as a special education administrator. (Two letters can be used in the same space.)

Example
always watches the time

never watches the time

PLEASE RE-MARK ALL 55 SCALES
Part C - Directions
The following questions ask for background information. Please be sure to answer each of them.

1. I have been a special education administrator for
   A. 0-3 YEARS
   B. 3-6 YEARS
   C. 6-9 YEARS
   D. 9-12 YEARS
   E. LONGER THAN 12 YEARS

2. I work in a school system that serves
   A. FEWER THAN 2,500 CHILDREN
   B. 2,500 TO 4,999 CHILDREN
   C. 5,000 TO 9,999 CHILDREN
   D. 10,000 TO 19,999 CHILDREN
   E. 20,000 OR MORE CHILDREN

3. I hold certification in (check all that apply)
   A. SPECIAL EDUCATION ADMINISTRATION
   B. REGULAR EDUCATION ADMINISTRATION
   C. SPECIAL EDUCATION TEACHING
   D. OTHER (SPECIFY) ____________________________
   E. OTHER (SPECIFY) ____________________________

4. I taught for ___ years before entering administra-
   tion.
   A. 0-3 YEARS
   B. 4-6 YEARS
   C. 7-9 YEARS
   D. 10-12 YEARS
   E. 13 OR MORE YEARS

5. My title is (check the one that most closely
   applies)
   A. DIRECTOR OF SPECIAL EDUCATION (SPECIAL SERVICES)
   B. SUPERVISOR OF SPECIAL EDUCATION (SPECIAL SERVICES)
   C. COORDINATOR OF SPECIAL EDUCATION (SPECIAL SERVICES)
   D. DIRECTOR OF PUPIL PERSONNEL SERVICES
   E. OTHER (SPECIFY) ____________________________

6. I hold a full-time position as a special education
   administrator.
   A. YES
   B. NO (PLEASE LIST OTHER TITLES OR JOB FUNCTIONS)
7. Currently my highest degree is
   A. BACHELOR'S DEGREE
   B. MASTER'S DEGREE
   C. MASTER'S DEGREE PLUS 30 GRADUATE CREDITS
      (OR CAGS, ETC.)
   D. DOCTORATE
   E. OTHER (SPECIFY) _______________________________

8. Currently my salary is
   A. UNDER $15,000
   B. $15,000-$19,999
   C. $20,000-$24,999
   D. $25,000-$29,999
   E. $30,000 OR HIGHER

9. Currently my family responsibilities include
   A. NO SPOUSE AND NO CHILDREN AT HOME
   B. NO SPOUSE BUT CHILDREN AT HOME
   C. A SPOUSE, BUT NO CHILDREN AT HOME
   D. A SPOUSE AND CHILDREN AT HOME
   E. OTHER (SPECIFY) _______________________________

10. My sex is
    A. FEMALE
    B. MALE

11. I am
    A. UNDER 30 YEARS OLD
    B. 30-35 YEARS OLD
    C. 36-40 YEARS OLD
    D. 41-45 YEARS OLD
    E. 46-50 YEARS OLD
    F. 51 (+) YEARS OLD

12. I am employed in the state of
    A. CONNECTICUT
    B. MAINE
    C. MASSACHUSETTS
    D. NEW HAMPSHIRE
    E. RHODE ISLAND
    F. VERMONT

Please use the space below to include any additional comments.

Thank you for your help. Please use the enclosed envelope to return this completed questionnaire as soon as possible.
APPENDIX C

Survey for Feasibility Investigation

a. cover letter

b. survey instrument
Dear

I would like to ask for a little (half hour?) of your time to complete a questionnaire that will be part of my dissertation study. The questions are not about [agency name deleted], but about your perceptions of you and your work.

There are two parts here, and I am assessing the usefulness of each of the two versions (one longer, one shorter).

Part A (longer version)

For each of the 82 items that follow, put a slash (/) on the scale to indicate the ideal trait for someone doing your job. Please mark all items.

Example:
Loves chocolate
Hates chocolate

1........2./........3........4........5........6........7........8

Part B (shorter version)

Part B is similar in format, but contains only 36 items. I'll give you more explicit directions when you finish Part A.

Part C (the end)

There are a handful of questions at the end about the two versions, and a brief explanation of the purpose of the study (don't peek). I would like to talk to you if you have additional comments or questions when you have completed this.

Thank you very much. Please leave the completed questionnaire in my box by Friday afternoon. If you decide not to complete it, I would appreciate your returning it to me anyway. Feel free to tear off this top sheet before returning the completed questionnaire. Thank you again.

Sincerely,

[Signature]
<p>| | |</p>
<table>
<thead>
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<tbody>
<tr>
<td>1.</td>
<td>not at all aggressive</td>
</tr>
<tr>
<td>2.</td>
<td>very irrational</td>
</tr>
<tr>
<td>3.</td>
<td>very practical</td>
</tr>
<tr>
<td>4.</td>
<td>not at all independent</td>
</tr>
<tr>
<td>5.</td>
<td>not at all consistent</td>
</tr>
<tr>
<td>6.</td>
<td>very emotional</td>
</tr>
<tr>
<td>7.</td>
<td>very realistic</td>
</tr>
<tr>
<td>8.</td>
<td>not at all idealistic</td>
</tr>
<tr>
<td>9.</td>
<td>does not hide emotions at all</td>
</tr>
<tr>
<td>10.</td>
<td>very subjective</td>
</tr>
<tr>
<td>11.</td>
<td>mainly interested in details</td>
</tr>
<tr>
<td>12.</td>
<td>always thinks before acting</td>
</tr>
<tr>
<td>13.</td>
<td>not at all easily influenced</td>
</tr>
<tr>
<td>14.</td>
<td>not at all talkative</td>
</tr>
<tr>
<td>15.</td>
<td>very grateful</td>
</tr>
<tr>
<td>16.</td>
<td>doesn't mind at all when things are not clear</td>
</tr>
<tr>
<td>17.</td>
<td>very dominant</td>
</tr>
<tr>
<td>18.</td>
<td>dislikes math and science very much</td>
</tr>
<tr>
<td>19.</td>
<td>not at all reckless</td>
</tr>
<tr>
<td>20.</td>
<td>not at all excitable in a major crisis</td>
</tr>
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</table>

- 1 very aggressive
- 2 very rational
- 3 very impractical
- 4 very independent
- 5 very consistent
- 6 not at all emotional
- 7 not at all realistic
- 8 very idealistic
- 9 almost always hides emotions
- 10 very objective
- 11 mainly interested in generalities
- 12 never thinks before acting
- 13 very easily influenced
- 14 very talkative
- 15 not at all grateful
- 16 minds very much when things are not clear
- 17 very submissive
- 18 likes math and science very much
- 19 very reckless
- 20 very excitable in a major crisis
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<tr>
<td>22</td>
<td>not at all strict</td>
<td>1</td>
</tr>
<tr>
<td>23</td>
<td>very weak personality</td>
<td>1</td>
</tr>
<tr>
<td>24</td>
<td>very active</td>
<td>1</td>
</tr>
<tr>
<td>25</td>
<td>not at all able to devote self completely to others</td>
<td>1</td>
</tr>
<tr>
<td>26</td>
<td>very blunt</td>
<td>1</td>
</tr>
<tr>
<td>27</td>
<td>very gentle</td>
<td>1</td>
</tr>
<tr>
<td>28</td>
<td>very helpful to others</td>
<td>1</td>
</tr>
<tr>
<td>29</td>
<td>not at all competitive</td>
<td>1</td>
</tr>
<tr>
<td>30</td>
<td>very logical</td>
<td>1</td>
</tr>
<tr>
<td>31</td>
<td>not at all competent</td>
<td>1</td>
</tr>
<tr>
<td>32</td>
<td>very worldly</td>
<td>1</td>
</tr>
<tr>
<td>33</td>
<td>not at all skilled in business</td>
<td>1</td>
</tr>
<tr>
<td>34</td>
<td>very direct</td>
<td>1</td>
</tr>
<tr>
<td>35</td>
<td>knows the way of the world</td>
<td>1</td>
</tr>
<tr>
<td>36</td>
<td>not at all kind</td>
<td>1</td>
</tr>
<tr>
<td>37</td>
<td>not at all willing to accept change</td>
<td>1</td>
</tr>
<tr>
<td>38</td>
<td>feelings not easily hurt</td>
<td>1</td>
</tr>
</tbody>
</table>

- not at all excitable in a minor crisis
- not at all strict
- very weak personality
- very active
- not at all able to devote self completely to others
- very blunt
- very gentle
- very helpful to others
- not at all competitive
- very logical
- not at all competent
- very worldly
- not at all skilled in business
- very direct
- knows the way of the world
- not at all kind
- not at all willing to accept change
- feelings not easily hurt
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<td>very adventurous</td>
</tr>
<tr>
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<td>very aware of the feelings of others</td>
<td>1...2...3...4...5...6...7...8</td>
<td>not at all aware of the feelings of others</td>
</tr>
<tr>
<td>41</td>
<td>not at all religious</td>
<td>1...2...3...4...5...6...7...8</td>
<td>very religious</td>
</tr>
<tr>
<td>42</td>
<td>not at all intelligent</td>
<td>1...2...3...4...5...6...7...8</td>
<td>very intelligent</td>
</tr>
<tr>
<td>43</td>
<td>not at all interested in own appearance</td>
<td>1...2...3...4...5...6...7...8</td>
<td>very interested in own appearance</td>
</tr>
<tr>
<td>44</td>
<td>can make decisions easily</td>
<td>1...2...3...4...5...6...7...8</td>
<td>has difficulty making decisions</td>
</tr>
<tr>
<td>45</td>
<td>gives up every easily</td>
<td>1...2...3...4...5...6...7...8</td>
<td>never gives up easily</td>
</tr>
<tr>
<td>46</td>
<td>very shy</td>
<td>1...2...3...4...5...6...7...8</td>
<td>very outgoing</td>
</tr>
<tr>
<td>47</td>
<td>always does things without being told</td>
<td>1...2...3...4...5...6...7...8</td>
<td>never does things without being told</td>
</tr>
<tr>
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<td>never cries</td>
<td>1...2...3...4...5...6...7...8</td>
<td>cries very easily</td>
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<td>49</td>
<td>almost never acts as a leader</td>
<td>1...2...3...4...5...6...7...8</td>
<td>almost never acts as a leader</td>
</tr>
<tr>
<td>50</td>
<td>never worried</td>
<td>1...2...3...4...5...6...7...8</td>
<td>always worried</td>
</tr>
<tr>
<td>51</td>
<td>very neat in habits</td>
<td>1...2...3...4...5...6...7...8</td>
<td>very sloppy in habits</td>
</tr>
<tr>
<td>52</td>
<td>very quiet</td>
<td>1...2...3...4...5...6...7...8</td>
<td>very loud</td>
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<td>not at all intellectual</td>
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<td>very intellectual</td>
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<td>very careful</td>
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<td>very careless</td>
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<td>not at all self-confident</td>
<td>1...2...3...4...5...6...7...8</td>
<td>very self-confident</td>
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<tr>
<td>56</td>
<td>feels very superior</td>
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<td>feels very inferior</td>
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<td>Scale</td>
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<td>----------------------------------------------------------</td>
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<td>-----------------------------------------------------</td>
</tr>
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<td>always sees self as running the show</td>
<td>1-8</td>
<td>never sees self as running the show</td>
</tr>
<tr>
<td>58</td>
<td>not at all uncomfortable about being aggressive</td>
<td>1-8</td>
<td>very comfortable about being aggressive</td>
</tr>
<tr>
<td>59</td>
<td>very good sense of humor</td>
<td>1-8</td>
<td>very poor sense of humor</td>
</tr>
<tr>
<td>60</td>
<td>not at all understanding of others</td>
<td>1-8</td>
<td>very understanding of others</td>
</tr>
<tr>
<td>61</td>
<td>very warm in relations with others</td>
<td>1-8</td>
<td>very cold in relations with others</td>
</tr>
<tr>
<td>62</td>
<td>doesn't care about being in a group</td>
<td>1-8</td>
<td>greatly prefers being in a group</td>
</tr>
<tr>
<td>63</td>
<td>very little need for security</td>
<td>1-8</td>
<td>very strong need for security</td>
</tr>
<tr>
<td>64</td>
<td>not at all ambitious</td>
<td>1-8</td>
<td>very ambitious</td>
</tr>
<tr>
<td>65</td>
<td>very rarely takes extreme positions</td>
<td>1-8</td>
<td>very frequently takes extreme positions</td>
</tr>
<tr>
<td>66</td>
<td>able to separate feelings from ideas</td>
<td>1-8</td>
<td>unable to separate feelings from ideas</td>
</tr>
<tr>
<td>67</td>
<td>not at all dependent</td>
<td>1-8</td>
<td>very dependent</td>
</tr>
<tr>
<td>68</td>
<td>does not enjoy art and literature at all</td>
<td>1-8</td>
<td>enjoys art and literature very much</td>
</tr>
<tr>
<td>69</td>
<td>seeks out new experiences</td>
<td>1-8</td>
<td>avoids new experiences</td>
</tr>
<tr>
<td>70</td>
<td>not at all restless</td>
<td>1-8</td>
<td>very restless</td>
</tr>
<tr>
<td>71</td>
<td>very uncomfortable when people express emotions</td>
<td>1-8</td>
<td>not at all uncomfortable when people express emotions</td>
</tr>
<tr>
<td>72</td>
<td>easily expresses tender feelings</td>
<td>1-8</td>
<td>does not express tender feelings easily</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>73. very conceited about appearance</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>74. retiring</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>75. thinks men are superior to women</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>76. very sociable</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>77. very affectionate</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>78. very conventional</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>79. very masculine</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>80. very feminine</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>81. very assertive</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>82. very impulsive</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

GO TO THE NEXT PAGE
Part B

Thirty-six of the preceding item numbers are circled. These 36 items are the shorter version mentioned previously. For each of these 36 items, put a slash (/) on the scale to indicate what you are like in doing your job. Put an S ("self") above each of these slashes. And please mark all circled items.

Example:

loves  hates
chocolate  chocolate

1........2........3........4........5........6........7........8
Part C

Your answers to the following questions are very important, as they will help me to refine my study.

1. About how long did you spend answering Part A? _____ minutes
   Part B? _____ minutes

2. The final version of the study will include most of the items from either the longer version (A) or the shorter version (B). However, folks will be asked to indicate both their IDEAL and SELF ratings for each item (that is, they'll mark each item twice). The longer version is over twice as long as the shorter version. How much more comprehensive is the longer version?
   a. About twice as comprehensive - it really covers a lot of important traits omitted in the short form.
   b. Not sufficiently more comprehensive to be worth the extra time needed to respond.
   c. Other _______________________

3. About what percentage of the items seem irrelevant to doing your job?
   a. over 75% - most of them
   b. over 50%, but less than 75%
   c. between 25% and 50%
   d. under 25% - but some
   e. almost none - close to 0%

4. Do any particular items seem especially inappropriate or unanswerable? If so, please explain. (Continue on the back of the page, if necessary.)

5. Please identify your sex (male, female)
   position (therapist, teacher, administrator)

My study will explore the similarities between sex-role stereotypes and special education administrators' perceptions about their work. The items you have marked have been found to be likely stereotypic perceptions about men or women. Thank you for helping me adapt these items for my survey.
APPENDIX D

82 Item Broverman Sex-Role Questionnaire
A. We would like to know something about what people expect other people to be like. Imagine that you are going to meet someone for the first time, and the only thing that you know in advance is that he is an adult male. What sort of things would you expect? For example, what would you expect about his liking or disliking of the color red? On each scale, please put a slash (/) and the letter "M" above the slash according to what you think an adult male is like.

For example:

<table>
<thead>
<tr>
<th>Strong dislike for the color red</th>
<th>M</th>
<th>Strong liking for the color red</th>
</tr>
</thead>
<tbody>
<tr>
<td>1......2......3......4......5....../..6......7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Copyright 1974, Psychology Training & Research, Inc.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Not at all aggressive</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. Very irrational</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. Very practical</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. Not at all independent</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. Not at all consistent</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6. Very emotional</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7. Very realistic</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8. Not at all idealistic</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9. Does not hide emotions at all</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>10. Very subjective</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>11. Mainly interested in details</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>12. Always thinks before acting</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>13. Not at all easily influenced</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
14. Not at all talkative
15. Very grateful
16. Doesn't mind at all when things are not clear
17. Very dominant
18. Dislikes math and science very much
19. Not at all reckless
20. Not at all excitable in a major crisis
21. Not at all excitable in a minor crisis
22. Not at all strict
23. Very weak personality
24. Very active
25. Not at all able to devote self completely to others
26. Very blunt

Very talkative
Very grateful
Minds very much when things are not clear
Very submissive
Likes math and science very much
Very reckless
Very excitable in a major crisis
Very excitable in a minor crisis
Very strict
Very strong personality
Very passive
Able to devote self completely to others
Very tactful
27. Very gentle
28. Very helpful to others
29. Not at all competitive
30. Very logical
31. Not at all competent
32. Very worldly
33. Not at all skilled in business
34. Very direct
35. Knows the way of the world
36. Not at all kind
37. Not at all willing to accept change
38. Feelings not easily hurt
39. Not at all adventurous

Very rough
Not at all helpful to others
Very competitive
Very illogical
Very competent
Very home oriented
Very skilled in business
Very sneaky
Does not know the way of the world
Very kind
Very willing to accept change
Feelings easily hurt
Very adventurous
40. Very aware of the feelings of others
1. 2. 3. 4. 5. 6. 7
41. Not at all religious
1. 2. 3. 4. 5. 6. 7
42. Not at all intelligent
1. 2. 3. 4. 5. 6. 7
43. Not at all interested in own appearance
1. 2. 3. 4. 5. 6. 7
44. Can make decisions easily
1. 2. 3. 4. 5. 6. 7
45. Gives up very easily
1. 2. 3. 4. 5. 6. 7
46. Very shy
1. 2. 3. 4. 5. 6. 7
47. Always does things without being told
1. 2. 3. 4. 5. 6. 7
48. Never cries
1. 2. 3. 4. 5. 6. 7
49. Almost never acts as a leader
1. 2. 3. 4. 5. 6. 7
50. Never worried
1. 2. 3. 4. 5. 6. 7
51. Very neat in habits
1. 2. 3. 4. 5. 6. 7
52. Very quiet
1. 2. 3. 4. 5. 6. 7

5. Not at all aware of the feelings of others    47
Very religious                              53
Very intelligent                            59
Very interested in own appearance           65
Has difficulty making decisions             71
Never gives up easily                       11
Very outgoing                               17
Never does things without being told        23
Cries very easily                           29
Almost always acts as a leader              35
Always worried                              41
Very sloppy in habits                       47
Very loud                                  53
<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>53.</td>
<td>Not at all intellectual</td>
<td>1...2...3...4...5...6...7</td>
</tr>
<tr>
<td>54.</td>
<td>Very careful</td>
<td>1...2...3...4...5...6...7</td>
</tr>
<tr>
<td>55.</td>
<td>Not at all self-confident</td>
<td>1...2...3...4...5...6...7</td>
</tr>
<tr>
<td>56.</td>
<td>Feels very superior</td>
<td>1...2...3...4...5...6...7</td>
</tr>
<tr>
<td>57.</td>
<td>Always sees self as running the show</td>
<td>1...2...3...4...5...6...7</td>
</tr>
<tr>
<td>58.</td>
<td>Not at all uncomfortable about being aggressive</td>
<td>1...2...3...4...5...6...7</td>
</tr>
<tr>
<td>59.</td>
<td>Very good sense of humor</td>
<td>1...2...3...4...5...6...7</td>
</tr>
<tr>
<td>60.</td>
<td>Not at all understanding of others</td>
<td>1...2...3...4...5...6...7</td>
</tr>
<tr>
<td>61.</td>
<td>Very warm in relations with others</td>
<td>1...2...3...4...5...6...7</td>
</tr>
<tr>
<td>62.</td>
<td>Doesn’t care about being in a group</td>
<td>1...2...3...4...5...6...7</td>
</tr>
<tr>
<td>63.</td>
<td>Very little need for security</td>
<td>1...2...3...4...5...6...7</td>
</tr>
<tr>
<td>64.</td>
<td>Not at all ambitious</td>
<td>1...2...3...4...5...6...7</td>
</tr>
<tr>
<td>65.</td>
<td>Very rarely takes extreme positions</td>
<td>1...2...3...4...5...6...7</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Number</th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td>Very intellectual</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Very careless</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Very self-confident</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>Feels very inferior</td>
<td>CD 6</td>
</tr>
<tr>
<td></td>
<td>Never sees self as running the show</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Very uncomfortable about being aggressive</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Very poor sense of humor</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Very understanding of others</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Very cold in relations with others</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Greatly prefers being in a group</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Very strong need for security</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Very ambitious</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>Very frequently takes extreme positions</td>
<td>59</td>
</tr>
<tr>
<td>66. Able to separate feelings from ideas</td>
<td>1 ... 2 ... 3 ... 4 ... 5 ... 6 ... 7</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>----------------------------------</td>
<td></td>
</tr>
<tr>
<td>67. Not at all dependent</td>
<td>1 ... 2 ... 3 ... 4 ... 5 ... 6 ... 7</td>
<td></td>
</tr>
<tr>
<td>68. Does not enjoy art and literature at all</td>
<td>1 ... 2 ... 3 ... 4 ... 5 ... 6 ... 7</td>
<td></td>
</tr>
<tr>
<td>69. Seeks out new experiences</td>
<td>1 ... 2 ... 3 ... 4 ... 5 ... 6 ... 7</td>
<td></td>
</tr>
<tr>
<td>70. Not at all restless</td>
<td>1 ... 2 ... 3 ... 4 ... 5 ... 6 ... 7</td>
<td></td>
</tr>
<tr>
<td>71. Very uncomfortable when people express emotions</td>
<td>1 ... 2 ... 3 ... 4 ... 5 ... 6 ... 7</td>
<td></td>
</tr>
<tr>
<td>72. Easily expresses tender feelings</td>
<td>1 ... 2 ... 3 ... 4 ... 5 ... 6 ... 7</td>
<td></td>
</tr>
<tr>
<td>73. Very conceited about appearance</td>
<td>1 ... 2 ... 3 ... 4 ... 5 ... 6 ... 7</td>
<td></td>
</tr>
<tr>
<td>74. Retiring</td>
<td>1 ... 2 ... 3 ... 4 ... 5 ... 6 ... 7</td>
<td></td>
</tr>
<tr>
<td>75. Thinks men are superior to women</td>
<td>1 ... 2 ... 3 ... 4 ... 5 ... 6 ... 7</td>
<td></td>
</tr>
<tr>
<td>76. Very sociable</td>
<td>1 ... 2 ... 3 ... 4 ... 5 ... 6 ... 7</td>
<td></td>
</tr>
<tr>
<td>77. Very affectionate</td>
<td>1 ... 2 ... 3 ... 4 ... 5 ... 6 ... 7</td>
<td></td>
</tr>
<tr>
<td>78. Very conventional</td>
<td>1 ... 2 ... 3 ... 4 ... 5 ... 6 ... 7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unable to separate feelings from ideas</th>
<th>71</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very dependent</td>
<td>CD 7</td>
</tr>
<tr>
<td>Enjoys art and literature very much</td>
<td>11</td>
</tr>
<tr>
<td>Avoids new experiences</td>
<td>17</td>
</tr>
<tr>
<td>Very restless</td>
<td>23</td>
</tr>
<tr>
<td>Not at all uncomfortable when people express emotions</td>
<td>29</td>
</tr>
<tr>
<td>Does not express tender feelings easily</td>
<td>35</td>
</tr>
<tr>
<td>Never conceited about appearance</td>
<td>41</td>
</tr>
<tr>
<td>Forward</td>
<td>47</td>
</tr>
<tr>
<td>Does not think men are superior to women</td>
<td>53</td>
</tr>
<tr>
<td>Not at all sociable</td>
<td>59</td>
</tr>
<tr>
<td>Not at all affectionate</td>
<td>65</td>
</tr>
<tr>
<td>Not at all conventional</td>
<td>CD 8</td>
</tr>
<tr>
<td>Not at all conventional</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>11</td>
</tr>
<tr>
<td>79. Very masculine</td>
<td>1........2........3........4........5........6........7</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>80. Very feminine</td>
<td>1........2........3........4........5........6........7</td>
</tr>
<tr>
<td>81. Very assertive</td>
<td>1........2........3........4........5........6........7</td>
</tr>
<tr>
<td>82. Very impulsive</td>
<td>1........2........3........4........5........6........7</td>
</tr>
</tbody>
</table>
B. Now we would like you to go through these same scales for a second time. Again, imagine that you are meeting a person for the first time and the only information you have is that she is an adult female. This time, please put a slash on each scale according to what you would expect an adult female to be like: Put the letter "F" above your second slash on each scale.

PLEASE BE SURE TO MARK EVERY ITEM.

C. Finally, please go through these same scales for a third and last time, placing a slash on each scale according to what you are like. Put an "S" above the third slash on each scale.