

THE WORK VALUES OF FEMALE ADOLESCENTS,

by

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CHAPTER 1

Introduction

Sex role stereotyping has been rigidly culturized in the American society. The previous four decades have produced, however, a change in the life style, work patterns, and sex roles of people, especially women, in the United States. Technology that simplifies household tasks, and advances in birth control, have made housekeeping and child care less than full-time tasks, resulting in more women entering the labor market. Further, increasing economic pressure is a contributing factor to the increase of women workers. With changing roles of women, society is also changing its views of traditional work roles; thus an assumption can be made that stereotypic work values may be changing also.

During World War II, the United States faced a crucial male labor shortage which was relieved by many women entering the job market, many for the first time. Although after the war many of them returned to the traditional role of housewife-mother, some remained on the job or sought other employment.

Coinciding with changing women's employment patterns, governmental, educational, and societal concepts of women's

roles have changed (Osipow, 1977). Loring and Otto (1976) noted that prior to the 1963 Equal Pay Legislation Act, women received only incidental benefits from legislation and were viewed by legislators and judges as subservient to males in terms of politics, labor, and financial management. Loring and Otto (1976) also noted that during the last fifteen years the number of laws and affirmative judicial rulings which benefit women is greater than that in all the previous history of the United States. Farmer and Backer (1977) pointed out sweeping educational transformations designed to further educational equity for women. Weitz (1977) found significant changes in sex roles both in the United States and in other world cultures. Evidence today also shows a major thrust to reduce and eliminate sex bias and sex stereotyping in the United States (Hansen, 1977; Farmer and Backer, 1977).

Because the role and status of women have taken a different perspective in recent decades, research is needed to investigate the effects these changes have on adolescents. One area to be considered is the work values young people may now be forming.

Work values may be both intrinsic and extrinsic qualities individuals seek when planning for and entering employment. According to Zytowski (1970), a formal, acceptable definition of the term is not yet available, but some of the

attributes of work values may be specified, and the degree of job satisfaction a worker has results from the extent to which the individual's work values are met.

The phrase stereotypic work values also lacks a universally agreed upon definition in the literature, but evidence of the existence of these biased constructs is very much apparent. Zapoleon (1961) stated that achievement drive is different for the two sexes; Douvan and Kaye (1957) found males have different work values than females. Super (1970) also cited examples of varying work values of the two sexes as did Goldsen, et al. (1960). Maccoby and Jacklin (1974) suggested that occupational assignments to the sexes result from tradition and culture rather than biological differences of the sexes. Thus, different kinds of work for males and females results from views of society, and consequently, men and women often enter different occupations and look for different rewards from work based on tradition and culture.

Theorists of career development, such as Super (1953), Ginzberg (1951), and Hoppock (1976), have attributed career decision making to a variety of elements, but all these writers include the individual's work values (or those attributes one may consider values) as facets of the developmental process. Super, et al. (1957) stated that the exploration stage explained in his theory has substages, one of which is the tentative substage (ages 15-17). Among

other characteristics of this substage is the consideration of values as well as needs, interests, and capacities. Ginzberg (1971) states that consideration of values in relation to career development is characteristic of ages 15-17, and it is at that time that values assume dominance.

In light of the influences work values have upon career decision making and the change today in the work role of females, the question arises: What influences are the changing work and family patterns having on adolescents, particularly female adolescents? A review of the literature exposes a void in studies of effects of working mothers' influences on the work values of females and males. There is also a lack of research concerning stereotypic work values. Linked with findings of Maccoby and Jacklin (1974), that parental modeling by young people is a prevalent factor in occupational aspirations, research to investigate female adolescents' work values as influenced by parental work patterns is needed.

Need for the Study

The American female has become a permanent and important element of the labor force. One-half of all American women are now working outside the home and the trend appears to be permanent. By 1990, the United States Department of Labor (1977) projects a rise of women workers to 60 or 65 percent. The multi-amplifications of these statistics have been a focal

point for researchers and authors of the past two decades. There is a profound need for women and for men to understand and adjust to the new roles and life styles resulting from this cultural shift.

Super (1970), Crites (1969), Ginzberg (1971), Zytowski (1970), Tolbert (1974), Hansen (1977), Hoppock (1960), and numerous others have noted career choice and job satisfaction are central to the individual's personal and emotional well being. The adjustment and satisfactions one receives from work are indicative of the extent to which the worker finds adequate outlets for his/her values, abilities, interests, and personality traits (Super, 1970). Zytowski (1970) has found that a need for "research on the value attached to work inputs or costs of work, and their effects on occupational choice may prove to be the next step in completing our understanding of vocational behavior" (p. 75).

More specifically, Osipow (1975) has found that inconsistent research designs and varying operational definitions have created difficulties for the researcher studying career development of women. He cited examples of "homemaker," "traditional," and "career orientation" as uniquely defined in each study. Osipow further noted that women are revising their values and self concepts, so there is need to help them in their endeavors to adjust to new roles as well as to

provide research-based data for the psychologist and counselor who are counseling women.

Hansen (1977) discovered an abundance of research on sex role stereotyping and career socialization but noted that the research done was repetitious. She also noted that there is a great deal unknown about the topic.

One of the most comprehensive and well researched works available concerning women's career education and development is the sourcebook of Farmer and Backer (1977). A central theme throughout the book is the urgent need for research in this area. They offered numerous suggestions for the investigation, one of which is the need for clarification of factors contributing to effects on children of working mothers.

Maccoby and Jacklin are probably the foremost authors in the United States on the development of sex differences. The concluding lines of their comprehensive, well-documented reference is a call for more research. They stated:

Despite the magnitude of the task of accumulating evidence on these matters (sex differences), it is hoped that today's generation of researchers will undertake it, so that tomorrow's ideology may reflect increased understanding of the forces that shape men and women. (Maccoby and Jacklin, 1966, p. 216)

Just as values unquestionably play a major role in developing the individual's self-concept, work values are relevant to one's satisfaction with his/her world. Bacon

and Lerner (1975) found some data on vocational-role perception of females but little research on the variables affecting it.

The effect of the employment history of parents on their children is another area lacking research. Lewis (1972), in studying the career decisions of young people, discovered that little is known about women's career decision patterns at present, although it is clear that parents influence children's vocational aspirations. Kapes and Strickler (1975), in a longitudinal study of change in work values as related to high school curriculum, noted inconsistencies in findings concerning work values in general and agreed with Zytowski (1970) that more research concerning influences of work values is needed.

Statement of the Problem

A review of related research has revealed no empirical data on the influence of nontraditional family patterns on the work values of adolescent females. There is also a lack of research concerning stereotypic work values. Thus, this study was undertaken to investigate the influence of family patterns on work values of female adolescents from nontraditional families, and to compare them to adolescent females from traditional families.

Purpose of the Study

The purpose of the study was to investigate work values of female adolescents from traditional career families (i.e., father is fully employed and mother is not employed outside the home) and those of female adolescents from nontraditional career families (i.e., both parents are fully employed). Specifically, the study investigated the following research questions:

1. Do work values of adolescent females from traditional homes differ significantly from those of female adolescents from nontraditional families?

2. Is there a difference in work values of female adolescents from traditional and nontraditional families as a function of the educational level of the parents?

3. Is there a difference in work values of female adolescents from traditional and from nontraditional families as a function of geographic distribution?

4. Is there a difference in work values of female adolescents from traditional and nontraditional families as a function of the racial composition of the two groups?

Limitations

This study was limited by the existence of frequent references in the media to females' equity and the legislation and court cases often featured in newspaper

headlines. Also, many educational institutions are focusing on females' special needs in career planning. Hence, the female adolescent is influenced outside the home as well as within. Another limitation was the utilization of school systems willing to participate in the research in lieu of random sampling of tenth grade female adolescents. A final limitation was that all the schools were located in Virginia, whose population is not necessarily similar to that of other states.

Significance of the Study

The United States is presently witnessing the creation of a society wherein men and women are given equal treatment in employment and education under the law. Labor Department statistics reflect that more women are becoming fully employed (Parnes, 1977). Schools are stressing career education programs which encourage all students to develop their fullest potential regardless of traditional roles. Various educational institutions are focusing on eliminating sex bias and inequities in education (McClure and McClure, 1977).

Many researchers in the field have noted the need for current research on the effects of the family on young people (Oispow, 1975; Hansen, 1977; Farmer and Backer, 1977; McClure and McClure, 1977; Wallston, 1973; Maccoby and Jacklin, 1974). Research from this study should be useful to those involved in planning and implementing career

education and career guidance programs. The prior knowledge that female adolescents' work values may vary according to work patterns of parents should be useful in planning a delivery system to best help the individual.

In addition, this study examined different variables such as educational level of parents, occupational level of parents, and race of the female adolescents. The results yield additional useful data for counselors and all those involved with aiding individuals in the career decision-making process.

Definition of Terms

One problem in existing research on factors relating to women's career decision making is the inconsistencies in operationally defining terms. In accordance with this need, the following definitions relative to this study are in keeping with other major studies.

1. Work Values: For purpose of this study, work values are operationally defined as the scores derived on the Work Values Inventory (WVI).

2. Stereotypic Work Values: For the purpose of this study, stereotypic work values are defined as those work values traditionally attributed to being more desirable to one sex than another as measured by the Work Values Inventory.

3. Traditional Family: The definition of traditional family is one wherein the husband-father is fully employed and the wife-mother is not employed outside the home.

4. Nontraditional Family: Nontraditional family is defined as one in which both parents are employed on a full time basis outside the home.

5. Female Adolescents: For the purpose of this study, female adolescents are operationally defined as tenth grade females.

Organization of the Study

Chapter 1 has presented the problem, the need for, and purpose of the study. The limitations were discussed and the terms defined. The significance of the research was also discussed. Chapter 2 contains a survey of related studies and literature, while Chapter 3 contains the methodology to be utilized, including sample size, data collection, and the procedures to be used in the analysis of the data. Chapter 4 presents the analysis of the data; and Chapter 5 discusses the interpretation, implications, and conclusions.

CHAPTER 2

Review of the Literature

This review of the literature covers four major topics: (1) career development of women, (2) traditional and non-traditional families, (3) work values, and (4) stereotypic work values. Each topic was specifically searched to find relevant literature not only to the area but any relation of that topic to female adolescents.

Career Development of Women

The literature on career development is extensive, with entire volumes being devoted to the topic. According to Tolbert (1964), career development may be defined as:

The lifelong process of developing work values, crystallizing a vocational identity, learning about opportunities, and trying out plans in part time, recreational, and full time work situations. (p. 25)

Career development of females and males have not usually been separated in the literature of general career development, although some authors did distinguish differences. However, some recent attention to women's career needs has probably promoted more attention to differences than was earlier considered necessary or appropriate. For example, Super (1957) found that women's role of childbearing naturally placed them in the home in the mother/homemaker role.

Earlier theorists did not dwell extensively on career development of females but did often refer to them. Osipow (1968) noted that "few explanations or concepts have been devised to deal with the special problems of the career development of women" (p. 247). Vetter (1978) disagreed with Osipow and suggested that there are at least four theoretical approaches to women's career development as well as two tentative sets of postulates. Vetter (1978) considered theories of Super, Roe, Holland, and Blau, Custard, Jessor, Parnes, and Wilcock. She also noted that Psathas and Zytowski have each presented approaches to female career development. Hansen (1974) stated that "there is no full-blown theory of female career development," (p. 3) but she did note that some work has begun in that area.

Farmer and Backer (1977) suggested there are three theories of career development for women: (1) the developmental theories of Super, and Tiedeman and O'Hara; (2) the sociological theories of Psathas and Osipow; and (3) the personality theories of Holland, Roe, and Hoppock.

Thus, there is apparently some disagreement on whether there are theories on women's career development. One area of agreement, however, is apparent. The research in career development has been directed toward males, and most

of the studies used males as subjects. Super (1957) based much of his research on males as did Erikson (1959) and Ginzberg (1952). Thus the literature is somewhat exiguous concerning women's career patterns.

Rationale for Career Development of Females

Hansen (1974) suggested that changing work and family patterns and changing social trends contribute to new roles for women, creating a need to focus on women's career patterns. She cited the following eight trends which have given impetus to the transformation of women's roles:

1. Technology, labor-saving devices, and the "decline of motherhood" as a full-time occupation.
2. The population explosion and birth control with their powerful effects on norms and decisions regarding number of children.
3. Legislation and federal regulations providing a legal context for improving the status of women in education and work.
4. The Women's Movement which has highlighted issues and concerns about equal rights in a variety of sectors and the concomitant movement for men's liberation.
5. New life styles and female sense of identity--the movement toward a more androgynous society in which roles in work and family are shared, diverse family patterns are acknowledged, and women are risking different kinds of patterns and self-definitions based on their own needs.
6. Increasing numbers of part-time jobs and day-care centers, making part-time work and more humanized day-care facilities available.

7. Continuing education with its opportunities for women to enter and re-enter education and/or work and to update or retrain for new fields.
8. Breakdown of occupational and career stereotypes so that continuous career patterns and dual or equal partnership marriage patterns are becoming more common and both male and female occupational stereotypes are being reduced. (pp. 454-455)

Thus, recent trends have contributed to new patterns for women. Enough time has not evolved for research data to aid much in understanding all the social ramifications of the emerging female roles.

Career development of women evidently differs from that of men. Super (1957), Tiedeman and O'Hara (1963), et al. (1968), Ginzberg (1952), and others have noted differences of females and males in career patterns and interests. The question of whether these differences will become less and men and women will eventually have similar career aspirations and plans will only be answered in the future. Nonetheless, the literature has plainly shown differences in career patterns and development of the sexes, making it necessary to analyze the differences for a thorough understanding.

Theories of Career Development for Females

Farmer and Backer (1977) noted developmental theories are the most useful in counseling women. They suggested that, in the developmental process, women crystallize their career choice later due to marriage considerations. This concept was supported by Ginzberg (1957), Osipow (1975),

and Super (1957). Farmer and Backer (1977) also noted sex differences in career maturity but questioned whether these differences are related to female marriage/career plans or other variables.

According to Super's (1957) theory, people implement their self-concept in selecting a career. He also noted that the self-concept is continually developing and the vocational self-concept is likewise a function of life development.

Smith and Herr (1972), in a study using 534 females and 489 males in the eighth grade and 495 females and 502 males in the tenth grade, found females exhibited more maturity than males in attitudes toward work and in career planning. Mulvey (1963), in a study of 475 females who had graduated from high school 20 to 27 years prior to the survey, found career patterns closely linked to life developmental cycle and major factors contributing to these patterns were educational and aspirational levels.

Zytowski (1969) presented the following series of postulates to illustrate different female work patterns:

1. The model life role for women is described as that of the homemaker.
2. The nature of the women's role is not static; it will ultimately bear no distinction from that of men.
3. The life role of women is orderly and developmental and may be divided into sequences according to the preeminent task in each.

4. Vocational and homemaker participation are largely mutually exclusive. Vocational participation constitutes departure from the homemaker role.
5. Three aspects of vocational participation are sufficient to distinguish patterns of vocational participation: age or ages of entry, span of participation, degree of participation.
6. The degree of vocational participation represented by a given occupation is defined as the proportion of men to the total workers employed in the performance of that job.
7. Women's vocational patterns may be distinguished in terms of three levels, derived from the combination of entry age(s), span and degree of participation, forming an ordinal scale.
8. Women's preference for a pattern of vocational participation is an internal event and is accounted for by motivational factors.
9. The pattern of vocational participation is determined jointly by preference (representing motivation) and by external (e.g., situational and environmental) and internal (such as ability) factors. (pp. 80-81)

Vetter (1978) noted that postulate four is refuted on the basis of evidence of present day employment statistics on married females.

Roe (1957) developed a Personality Theory of Career Choice based on influences of early childhood. Osipow (1972) and Tolberg (1974) found Roe's hypothesis, which was based on Maslow's needs hierarchy and that of unconscious needs as affecting career choice, lacking support from the research.

Knefelkamp, Wedick, and Stroad (1978) presented the following Cognitive-Developmental Theory as a guide to

counseling women. This concept was drawn from three theorists, Kohlberg (1970), Perry (1970), and Loevinger and Wessler (1970).

1. Development proceeds from cognitive simplicity to cognitive complexity. Individuals at "lower" stages of development tend to be more absolute, stereotypic, and dogmatic in their perception.
2. Individuals become less externally oriented and more inner-directed as higher stages of development are attained. Individuals at higher stages are less bound by any external authority--whether it be a teacher, a counselor, or their peer group. Moreover, as one moves upward on the developmental scale, the ability to accept responsibility for the consequences of one's actions increases.
3. Tolerance for ambiguity and stress appear to increase as individuals reach higher stages of development. Individuals at higher stages seem to have a grasp of means-ends relationships that allow them to be more adaptable in pursuit of goals.
4. The pattern of development proceeds toward a greater capacity to empathize with others, particularly with those individuals who hold conflicting points of view.
5. As an individual moves towards higher stages of development, the orientation to others changes from a strong self-focus to a posture of conformity to the group and then to a mature focus of mutual interdependence on others. The individual is truly autonomous and inner-directed when she arrives at the point of acknowledging her interdependence on others in her life.
(p. 177)

Based on these five statements describing the developmental process, Knepfelkamp, Wedick, and Stroad theorize that there are three categories of hierarchies in counseling women. These categories present an interrelatedness concept

of the female's sense of identity and thought process. The first, dualism, is characterized by authoritarianism and stereotypic thinking; the second, relativism, is the period of a defensive sense of self; and the third, commitment to relativism, is a stage of open-mindedness and positive self-identity. Apparently, the female may stop at any of these stages or begin at the first and develop to the third. The authors asserted that the counselor's role is fundamental in aiding women to advance.

Stages of Female Career Development

Zytowski (1970) presented the figure on page 20 giving information concerning the stages and work patterns of females. It should be noted that the percentage of women working includes part-time workers.

Zytowski (1970) further stated that:

It is entirely feasible that the vocational life stages of any of the three theories presented (see preceding table) would be fully applicable to the lives of women except for one fact: most women do not act exactly like men; they marry, have children, and care for them during a period which is coincident with late exploration and early establishment stages. (p. 21)

The author also noted that the career development of the individuals is related to their sex.

According to Osipow (1975), there are significant similarities in career development of males and females although social organization has exerted and will probably

A Comparison of Various Conceptions of the Vocational Life Stages of Men and Women

Age	Super	Havighurst	Villar & Form	Women Stages	Working
Birth	Imprint—Development of self concept. Fantasy—Needs are dominant.	Identification with worker.	Preparatory Socialization & experience gained with work tasks. Character, personality & values emerge.	Preschool School	
10	Interest—Likes are determinants of behavior. Identity—Abilities considered in choices. Exploration—Self-examination & occupational exploration. Fantasy—Choices made.	Acquiring basic habits of industry. Acquiring identity as a worker in the occupational structure. Choosing & preparing. Gaining work experience.	Initial Dependence on home weakened. Aspirations adjusted to realistic levels.		mill
10	Transition—Reality considerations enter into choices.		School leaving!	Young wife	11
	Trial—Beginning job located and tried out. Establishment—effort directed to achieving permanence. Includes 1 substage: Trial—time of potential change.	Becoming a productive person. Mastering occupation of skills.	Trial—Select a satisfying job & develop a career orientation.	Childbearing Preschool children	13
20	Stabilization—effort is to make a secure place.	Moving up the occupational ladder.		Children in school	19
		Maintaining a productive society. Emphasis shifts from individual getting self established to contributing to society.	Stable Establishing roots in work & community. Progress to highest level attainable.	Children marry	23
30	Maintenance—longer is held place gained in establishment escape.			Empty nest	24
40				Widowhood	28
	Decline—Deceleration		Retired—adjust to non-work.		40
50	Retirement	Contemplating a productive & responsible life.			

Figure 1
Taxonomy of Work Values

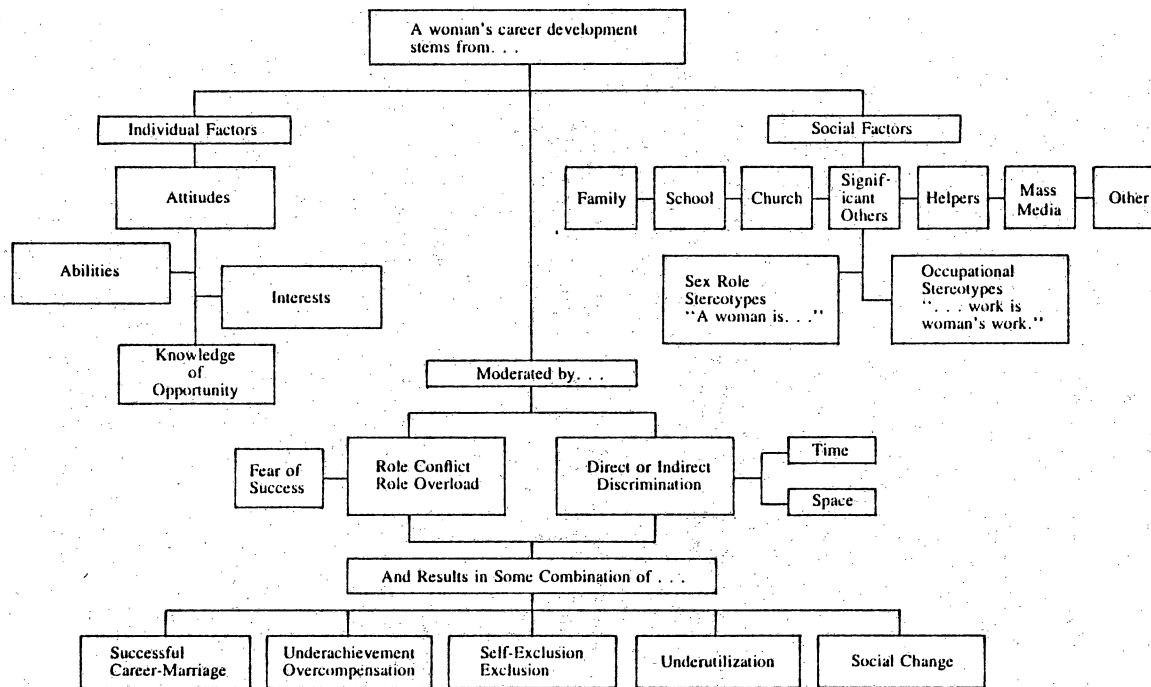
continue to exert, an influence on career development of both sexes. Figure 2 on page 22, prepared by Senesh (1973), displays psychological aspects of women's career development.

Super's Career Pattern Study (1957) is probably one of the most cited pieces of research found in the literature. Using a sample of 138 eighth-grade males and 142 ninth-grade males, he began a twenty year longitudinal study in 1951. The research encompassed several aspects of career patterns, one of which is life stages (i.e., Growth Stage, Exploration Stage, Establishment Stage, and Decline Stage).

Super (1957) also identified career patterns of males and females. He labeled the four types of men's patterns as: Stable, Conventional, Unstable, and Multiple Trial. His career patterns of females are classified as:

. . . stable homemaking (no significant work experience), conventional (work after education but not after marriage), stable working (single women who work continuously), interrupted (married women who work, then are fulltime homemakers, then return to work), unstable (in and out of the labor force at irregular intervals), and multiple-trial (a succession of unrelated jobs). (p. 77)

Hansen (1977), in reviewing the literature on career development and sex role stereotyping, noted that the Career Development Curriculum (CDE) designed by herself and colleagues, encompasses stages of development. She labeled grades 7-9 as "Assertive Stage" during which time individuals undergo physical, social, emotional, and cognitive changes



'This table, prepared by Susan A. Mishler, was inspired by Senesh and Osipow's table "Fundamentals of Career Education" in Senesh (1973).

Figure 2
Psychological Aspects of Women's Career Development

resulting in self-concept clarification. The period of senior high school is the "Organizing Stage" at which time teenagers internalize the concepts of the self and their environment to form a basis for generalizing the career identity. Hansen (1977) found ambiguity in recent data on self-concepts of adolescent males and females with the Organizing Stage. She noted that some studies have found differences on self-concepts of female and male adolescents. Some found females to have a lesser self-concept while others found the opposite to be true. She concluded that during life stages, career development of females does appear to result in different career choices than males, probably as a result of the socialization process.

In his theory of Occupational Choice, Ginzberg (1971) identified major stages of career development as the "Fantasy Period" (before age 11), the "Tentative Period" (ages 11-17), and the "Realistic Period" (ages 17-young adult). Basing his research on male college students, he also examined the relevance of the theory of using female college students but with a limited sample. The theory was supported when using the female sample. Ginzberg also found differences in occupational choices of females and males but did not distinguish a difference in developmental stages.

In a study on the sequence of career choices among women graduates and law students, Weitz (1977) found a

pattern in career choices: Traditional career choices were chosen up to ages ten or twelve, and midteen females began to select professional, nontraditional careers. Weitz suggested this "switch" may be attributed, at least in part, to the exposure to a broader high school curriculum.

Traditional and Nontraditional Families

The traditional family concept is perhaps engraved in America's culture and undoubtedly results from the necessary division of labor which dates to prehistoric times. The male's role has traditionally been that of the breadwinner and the female's as the homemaker in most cultures throughout the world. The females' childbearing and nursing roles placed her in the home, and the male became the protector and economic supporter.

However, the striking changes in the American society since World War II have resulted in a shift in the labor market and in the division of labor. Modern technology has reduced the time required to efficiently care for a home and family. Birth control methods allow parents to plan the size of their families and the time at which they will have children.

Further changes in the economic system have made it necessary in some cases, and highly attractive in others, for a family to seek more income than what one marriage partner can contribute. Inflation increases monthly and

massive advertising campaigns, accessible travel facilities, and a ready supply of what may be termed "luxury items" encourage Americans to seek a life style which requires, in many instances, a greater economic basis than the traditional father/husband breadwinner may produce. Additional factors are obvious in reviewing the shifting employment patterns of Americans (e.g., the divorce statistics, available child care facilities, women's educational opportunities, affirmative legislation for females, etc.). However, this review is concerned with the existence of the phenomena, not the causal factors.

Statistical Data

Post-World War II labor statistics are rather extraordinary in comparison to prior centuries. In 1940, 9 percent of the United States labor force was comprised of working mothers. In 1976, 49 percent of all mothers (i.e., women with children under 18 years of age) were employed. Of all children under 18 years of age, 46 percent had mothers in the work force in 1976 (Department of Labor, 1977). Appendix A includes further data on working mothers. In 1977, the total percentage of employed women in the labor force was 49 percent of all women 16 years of age and over (Bureau of Labor Statistics, 1977). According to the same source, a phenomenal increase, has occurred since 1965. Among women 25-34 years of age, there was an increase from 45 percent in

1965 to 59 percent in 1977. The remarkable factor of this statistic was that the majority of women (64 percent) were married, lived with their husbands, were mothers, and had traditionally remained in the home (Bureau of Labor Statistics, 1977). Another trend occurring in the last decade is the great majority (75 percent) of all women and a sizable majority (66 percent) of working mothers were employed full-time (Bureau of Labor Statistics, 1977).

Effects of Nontraditional Families on Children

The employment patterns of parents are shifting and the nontraditional family is becoming a way of life for many children. How the dual-job family affects young people is not evident from research. Earlier research on working mothers' influence on their children was frequently directed toward negative effects hypothesized by researchers.

Wallston (1973) termed these earlier studies "maternal deprivation" literature. She drew from studies done by Rossi (1965), Mead (1954), and Yarrow and Campbell (1963) to point out the futility of attempting to draw conclusions from the extensive research previously conducted.

This review has focused on more recent research findings of the "maternal deprivation" period. The comprehensive review of the literature on working mothers conducted by Wallston (1973) indicated that mothers' work, per se,

does not affect children adversely. Significant variables may well be the mother's attitude about working and adequate substitute care for the children. Mead (1974) noted that the quality of care given the child of working parents is a major force in the social and emotional adjustment of the child.

A major study concentrating on influences on children of working mothers is the kibbutz program of Israel. In this system, infants are placed in the care of nurses and others, who are responsible for the care of the children, and parents visit them frequently. Rabin (1965) studied a random sample of these children and found them to be more introverted than the control group, but they exhibited no signs of emotional disturbance.

Adolescents have been the target for several studies of influences of working mothers, although none of the studies investigated resulting work values per se. One area of study has been achievement (e.g. a work value) of teenagers of working and non-working mothers. Franhel (1964) concluded that there is no evidence that maternal employment affects achievement levels of boys. Similar results were found by Nye and Hoffman (1963) and Nelson (1963). Farley (1968) found differences, however, Wallston (1973) suggested these differences resulted from intervening variables other than paternal employment.

Attitudes of adolescents with working mothers have been studied and results appeared similar. Smith (1968) found daughters of working mothers have more positive attitudes toward dual roles of work and homemaker than do those of non-working mothers. Bacon and Lerner (1975) found a decrease in the vocational role stereotyping of females with working mothers, although their personal vocational aspirations were centered on traditional vocations. Lewis (1972) noted that mothers' employment histories and females career decisions are linked. In addition, Bem and Bem (1971) studied role modeling of females and found that the mother is most frequently mentioned as the person a woman would most prefer to be like.

Work Values

According to Zytowski (1970), an acceptable definition of work values is not available, and only attributes of work values are specified. Super (1970) made no attempt to define work values, per se, but defined values in accordance with Webster as "qualities which are regarded as intrinsically desirable." He continued to describe work as "a way of finding a life role, as means of implementing one's self concept," and as "a means to other ends" (p. 4). Smith (1969) had similar difficulty in defining the term.

Work values then are rather elusive, at least in definition. Most authors and theorists have described attributes

of work values rather than defined the term. Kinnane and Bannon (1964) described twelve work value factors but did not define the concept. Wagman (1966) studied values in general as related to careers and work but made no mention of "work values." Zytowski (1970) gives the "Taxonomy of Work Values" table which he has drawn from the authors listed (Figure 2).

In general, work values have been specified in categories or in specifics. Super (1970) found four dimensions of work values: Material, Goodness of Life, Self Expression, and Behavior Control. These dimensions are derived by factor analyses of the Work Values Inventory which consists of fifteen scales. According to Zytowski (1970), there is substantial agreement on twelve to fifteen work values categories as demonstrated in his "Taxonomy of Work Values" table.

Intrinsic and Extrinsic Work Values

Apparently, there are two broad categories of work values which motivate individuals in their search for satisfying careers, intrinsic and extrinsic. Intrinsic values, according to Super (1953), "are those inherent in the work activity" and extrinsic values "are generally the rewards" (p. 299). Super (1953) noted that the satisfaction of these values and their relative importance to the worker are central to job satisfaction and adjustment.

Rewards or extrinsic values have been found to be more compatible to women's needs, whereas intrinsic constructs apparently are more in accordance with those values men seek in their careers. In a study by Maccoby and Jacklin (1974), achievement motivation varied between the sexes. Boys showed orientation toward tasks that were classified as impersonal or with inanimate objects whereas girls' attention centered on interaction with people. The same research (Maccoby and Jacklin, 1974) also found girls worked for approval or praise from others whereas boys tended to show intrinsic interest in the task itself.

Wagman (1966) refers to women whose values are more intrinsic than extrinsic as conforming to masculine patterns. In research findings by Bardwick (1971), a female ego style was rooted in person-orientation, intuition, and empathy. Masih (1967), when comparing men and women on Career Saliency, found the highest number of women fall into the low saliency category which may be attributed to females' regarding work as extrinsically useful and therefore exhibiting a lesser degree of task and achievement motivation.

Whiting and Whiting (1974) studied altruistic behaviors of children from several cultures over a two year period. Results showed significant sex differences in the frequency children (ages three to eleven years old) offered help, support to others, and also took responsibility for the welfare of others. Yet, each of these cultures studied placed

emphasis on females' roles as empathetic, helping people. However, Maccoby and Jacklin (1974) concluded from the reivev of the research that there is no trend toward greater female altruism but add there is a lack of information on the topic. In a study conducted by Hansen (1977), the conclusion was that difference in occupational values probably lies within the socialization process.

There has been a recent trend in the literature to dispel some commonly held myths concerning males' and females' beliefs, interests, and values. Farmer and Backer (1977) listed a series of beliefs common to the average person and cited research that contradicted these beliefs. Among the myths presented and the research cited were:

(1) Women tend to be "passive dependent" as opposed to men who are independent, active, and dominant. Research such as Maccoby and Jacklin (1974) indicated equal dominance, leadership, and task competence for both sexes.

(2) Women gain a sense of accomplishment through others, usually their children, employer, husband, etc. Lipman-Blumen (1972) indicated studies that found over 30 percent of the females studied seek direct achievement from work.

(3) Females lack achievement motivation in a career. Again Maccoby and Jacklin (1974) have found that when there is a lacking of direct competition, females demonstrate higher levels of achievement motivation through the college age group.

(4) Females have a lower self-esteem. Although studies show a difference in particular aspects of esteem, Maccoby and Jacklin (1974) noted a marked similarity of self-esteem of both sexes through the high school age group.

(5) The science field is of less interest to females. Farmer and Backer (1977) concluded there is no evidence to suggest women are inherently uninterested in science and that performance in math and science is similar until the age of ten at which time females usually lag behind males. They suggested the lag is a result of significant others reinforcement patterns.

Race, Geographic Area, and Work Values

Clarenbach (1977), in a report of the National Advisory Council on Women's Educational Programs, pointed out the lack of adequate information about rural women. A recommendation from the Council was that research programs be undertaken to better assess what educational needs may exist for the group. According to the report, there was virtually no research or statistical data available concerning geographic location and career choices.

The search of the literature further revealed a paucity of research concerning work values of black females. Indeed, the studies available which addressed "work values" had no reference to race or geographic area.

Measurement of Work Values

The measurement of work values is a means to aid the individual to better understand "self" and, consequently, make better career choices. In keeping with Super's tenth proposition (1970), work satisfaction and life satisfaction in many ways result from finding adequate outlets in employment that fulfill basic needs, one of which is values. Hence, the clarification of what an individual values should be a useful tool in planning one's future.

Zytowski (1970) noted four inventories of work values: Hammond's Occupational Attitude Rating Scales (OARS), Super's Work Values Inventory (WVI), the Minnesota Importance Questionnaire (MIQ), and Steffle's Vocational Values Inventory (VVI). According to Zytowski, Steffle's VVI was validated in 1954 and contains 168 items which yield seven values. Hammond's OARS was also developed in the early 1950's and has not been used extensively. Zytowski (1970) further noted that the MIQ was generated by the Minnesota Studies in Vocational Rehabilitation, and the sample for the research on the instrument was done with employed persons. After analyzing the merits of the instruments available to assess work values, Super's WVI was selected as the most appropriate instrument for this study. The WVI is presented in Appendix A.

Work Values Inventory

The Work Values Inventory was developed by Donald E. Super in conjunction with the Career Pattern Study. It is

a means to measure both intrinsic and extrinsic work values of all age groups.

In developing the instrument, Super originally utilized longer forms of the inventory which have not been refined to forty-five items, three for each of the fifteen scales.

Super (1970) described the fifteen work values assessed by the Work Values Inventory:

1. Altruism is the value that relates to work which contributes to the well being of others;

2. Esthetics is inherent to work which enables one to add beauty to the world or produce beautiful things;

3. Creativity is the work value which provides the opportunity to invent or design new products or generate new ideas;

4. Intellectual Stimulation is a value associated with independent thinking and questioning;

5. Achievement is a value wherein a sense of accomplishment is felt;

6. Independence is associated with work which permits one to work in his own way and own speed;

7. Prestige is a value associated with work which derives a respect from others rather than for intrinsic status or power;

8. Management is the work value which allows one to plan the work of others;

9. Economic Returns is a goal oriented value of deriving monetary rewards which enables one to satisfy desires for material things;

10. Security is a value attached to the certainty of having a job even in economic recession period;

11. Surroundings is a value stressing pleasant environmental conditions in the work world;

12. Supervisory Relations is the value characterized by working under the director of a fair person with whom the worker can establish a good working relationship;

13. Associates is associated with good contacts with fellow workers and friendly relations;

14. Way of Life is the work value that "permits one to live the kind of life he chooses and be the type of person he wishes to be" (Super, 1970); and

15. Variety is associated with work which provides a number of tasks or jobs other than a strict routine.

The Work Values Inventory was standardized in 1968 by administering it to 10,083 students in grades 7-12. There was a fairly equal number of males and females in the sample and between 1,400 and 1,800 students were sampled in each grade. Test-retest reliability data yielded correlations from .74 to .88, with .83 as the median.

Validity data are rather extensive and have been compiled for about twenty years. The WVI was studied in

relation to the Allport-Vernon-Lindsey Study of Values, the Strong Interest Blank, and the Kuder Preference Record.

The construct validity reported, according to Tiedeman (1972), is reasonable.

Content validity data were gathered by field testing in a number of ways. The literature on values was studied, items were reworked in light of adolescents' and young adults' comprehension and by factor analyses and intercorrelations. The resulting data are presented in Appendix C.

In the analysis for concurrent validity, the data has not yielded markedly different results but there are statistically significant findings. See Appendix D for data on concurrent validity. Predictive validity data have not been accumulated.

Stereotypic Work Values

The literature made no reference to stereotypic work values, per se, but when the term is regarded as defined in this study (i.e., those work values traditionally attributed to being more desirable to one sex than another), the traditional values believed to be more applicable to women than to men (or vice versa) may be associated with this concept.

Frequent references in the literature have been made to the notion that female values in relation to work differ from those of males. Eyde (1967) referred to masculine and feminine work values as did Super (1969). Wagman (1966)

stated that men usually score lower on social, esthetic, and religious values scales. Super (1970) pointed out male-female differences on the different scales of his Work Values Inventory resulted from the "usual male-female differences" (p. 34). Rezler (1967) referred to masculine and feminine attitudes regarding work roles. Kinnane and Bannon (1964), Simpson and Simpson (1960), Kagen (1971), Osipow (1975), and Weitz (1977) all made references to what can be termed stereotypic work values, as did almost all researchers studying individual career choice.

Stereotypic Work Values of Females

Women have been traditionally stereotyped as homemakers, and when employed outside the home their roles have typically been in clerical, teaching, nursing, or social services. Super (1977) stated that the sex roles of females and males are both socially and biologically determined since the "women's role as childbearer makes her the keystone of the home, and therefore gives homemaking a central place in her career" (p. 76). According to Kline (1975), roles are clear to young people: boys are strong, active, and breadwinners and girls are weak, dependent homemakers.

Tyler (1968) reported a number of studies on sex differences but differences in attitudes, values, and traits were not demonstrated to be absolute or genetic. Hansen (1977), in reviewing the literature on career development

and sex role stereotyping, found numerous studies and concluded that there is much not known about the topic and some of the relations are inferred and caution should be exercised about causal relationships.

Maccoby and Jacklin (1974) found that intellectual aptitudes are similarly distributed by sex but that certain vocations are more concentrated with one sex rather than another because of the learned roles of the sexes. The role of leadership which is often associated with aggression, hence more fitting to male values, is also noted by the research (Maccoby and Jacklin, 1974). The same authors suggested that women may lack confidence in their performance and feel they have less control of their fates, thus they aspire to lesser prestige and achievement in occupations. Figure 3 on page 39 is presented in summary of the research on self-concept by Maccoby and Jacklin (1974).

In another study, Alper (1974) found females to have lower self-confidence and achievement motivation. According to Harman (1972), lack of environmental reinforcement may be raising the females' lower career aspiration levels.

Another area of interest to researchers has been the "fear of success" found in females. Katz (1973) found women medical students exhibited a lesser degree of "fear of success" when at least half of their medical class was female.

<u>Study</u>	<u>Age and N</u>	<u>Difference</u>	<u>Comment</u>
B. Long <u>et al.</u> 1968	6-13 (312)	Boys	Rated self higher on power scale
Fleming & Anttonen 1971	(1.087)	Boys	Potency scale on semantic differential self-concept measure)
Goss 1968	8, 11, 14, 17 (192)	None Boys	Self-ratings of physical strength Self-ratings of physical strength (multiracial)
McDonald 1968	17 (528)	Boys	Described self as higher on dominance (black and white)
Benton <u>et al.</u> 1969	18-21 (80)	Men	Expressed greater feeling of power in contrived role and rated same sex partner as more powerful
Kurtz 1971	18-21 (40)	Men	Higher potency score on Body Attitude Scale
Cameron 1970b	Adults (317)	Men	Judged self as more powerful and wealthy

Figure 3

Self-Concept, Strength and Potency

Zapoleon (1961) stated that the achievement drive for women appeared to be associated with satisfying interactions with others whereas men's achievement drive was associated with getting ahead. Likewise, women seemed to have more concerns about working conditions than men. In a national survey of adolescents, Douvan and Kaye (1957) found 70 percent of males and 59 percent of the females based occupational choice primarily on work itself. Goldsen, et al. (1960) concluded that women valued status, money, and security less as they expect to acquire these through marriage. Tresemer (1976), in reviewing 100 studies, found females did not exhibit a greater "fear of success" than did males. In another study by Super (1970), females apparently valued intellectual stimulation achieved by working with others, directing, planning, etc., whereas males were more likely to value the same attribute achieved through creative activities.

Thus the stereotypic work values are apparent from the literature and according to Maccoby and Jacklin (1974), these variances result from enculturization and tradition as well as personality traits sanctioned by society, rather than from innate differences in the sexes fitting them to one vocation rather than another.

Summary

Work values literature has been more abundant than that of stereotypic work values specifically, although both

concepts lack agreed upon formal definitions. The literature did demonstrate that there is a general agreement to the existence of these values and that two broad categories of work values exist: intrinsic work values and extrinsic work values. Furthermore, the Work Values Inventory, selected as most appropriate for this study was found to be well-researched.

Literature concerning traditional and nontraditional families revealed drastic changes in the number of female workers in the last three decades. The effects that the nontraditional family exerts on children were also examined, but no concrete conclusions were apparent. Finally, there was no universal agreement in the literature concerning career development of women, however, several theories were reviewed.

The research cited indicated the need for further investigation of females' work values. Especially pertinent was the void found concerning stereotypic work values and the influence working mothers have exerted on adolescents' career plans and values they seek in work.

CHAPTER 3

Methodology

This chapter provides a description of the methodology used in this study. The subjects are described and the procedures for collecting the data are summarized. In addition, the procedures for analyzing the data are discussed.

Subjects

The subjects selected to participate in this study were tenth grade females of six secondary schools in Virginia. The systems were chosen to represent typical rural and urban/suburban tenth grade females in the state and to include approximately equal numbers of racial samples. The total number participating was 528 female students, representing over 90 percent of the enrollment of tenth grade females in the six schools selected. The tables on pages 43-46 provide the number of the subjects by school, race, geographic area, parental educational level, and parental employment status (i.e., traditional, nontraditional, or other than traditional or nontraditional).

The six schools selected for the study were chosen to represent rural and urban/suburban, and black and white populations from Virginia. One study area consisted of two

Table 1
Number of Tenth Grade Females by Schools

School	Number	Percentage
I	42	7.95
II	78	14.77
III	56	10.61
IV	156	29.55
V	111	21.02
VI	85	16.10
Total	528	100.00

Table 2
Number of Tenth Grade Females by
Parental Employment Status

Status	Number	Percentage
Traditional	171	32.39
Nontraditional	215	40.72
Other	142	26.89
Total	528	100.00

Table 3
Number of Tenth Grade Females by
Geographic Area

Area	Number	Percentage
Rural	177	33.52
Urban	351	66.48
Total	528	100.00

Table 4
Number of Tenth Grade Females by Race

Race	Number	Percentage
Black	238	45.08
White	283	53.60
Other	7	1.33
Total	528	100.00

urban schools with a black population of about 80 percent; another school was in a rural area with about the same population of black students. The fourth school consisted of approximately 90 percent white urban/suburban school population, and the fifth and sixth schools were located in rural areas with white populations of over 90 percent.

Approval to conduct this study was given by the central office administrators of each of the five school systems.

Data Collection

Data were collected in March, 1979, with the researcher personally administering the Work Values Inventory (WVI) and the questionnaire (Appendix E) to 528 tenth grade females in the six Virginia high schools. One class period was provided for the students to be surveyed. The group sizes ranged from fourteen to thirty-six. The classes surveyed varied from school to school to accommodate the schools' schedules. Tenth grade English classes were utilized in three schools, tenth grade physical education classes in one school, and tenth grade science classes in two schools. Efforts were made to survey all tenth graders present the day the researcher visited the school. The WVI scores were later returned to the schools for distribution to the students. Scores were accompanied by letters to the students explaining the scores and the meaning of the scales.

The questionnaire developed to obtain the required personal information for this study was pilot tested by administering it to sixty students in the ninth, tenth, and eleventh grades in a local high school. Their concerns and questions were recorded by a counselor and the questionnaire refined. The revised questionnaire was then administered to another group of sixty students in the ninth, tenth, and eleventh grades. Comments and questions were negligible. The students selected to pilot test the questionnaire were of varied racial, educational, and socio-economic backgrounds.

Efforts were made to provide optimum conditions for the survey. Each student received a pencil, questionnaire, inventory, and answer sheet. The researcher gave explanations concerning the study and answered questions prior to administering the inventory and questionnaire. A standard orientation and explanation protocol was used for all the groups. The questionnaire and the inventory were read out loud, allowing time for the students to respond to each item.

Overall, a total of 528 female, tenth grade students were surveyed. Of the total, one optical scan sheet was not useable.

Data Analysis

Data was collected by administering the Work Values Inventory and a personal data questionnaire. Optical scan

sheets were substituted for the commercial answer sheets provided with the inventory, and personal data were coded onto the optical scan sheets by the researcher. The test scoring services of the Virginia Polytechnic Institute and State University were used to facilitate the analysis of the data.

Data collected from the questionnaire and from school personnel were coded onto the optical scan sheets according to the following categories:

1. Geographic area: rural or suburban/urban
2. Race: black, white, or other
3. Fathers' and mothers' educational level completed:
 - (a) seventh grade or less;
 - (b) more than seventh grade but less than high school graduation;
 - (c) high school graduation;
 - (d) trade or technical school;
 - (e) community college, junior college, or some college less than graduation from a four year college;
 - (f) four years of college; and
 - (g) more than four years of college
4. Parents' employment status: traditional (i.e. husband-father was fully employed and mother was

not employed outside the home); nontraditional (i.e. both parents were fully employed outside the home); or other (i.e. any other situation other than defined by "traditional" and "non-traditional")

Each student, school, and class were also assigned a code number to facilitate the management of the data and the return of the scores to the schools.

Hypotheses

The following hypotheses were formed from the research questions:

Hypothesis 1. There is no statistically significant differences between work values of female adolescents from traditional career families and of adolescent females from nontraditional career families as measured by the WVI.

Hypothesis 2. There is no statistically significant difference between work values of female adolescents from traditional and nontraditional career families as a function of the educational level of the parents as measured by the WVI.

Hypothesis 3. There is no statistically significant difference between work values of female adolescents from traditional and from career nontraditional families as a function of geographic location as measured by the WVI.

Hypothesis 4. There is no statistically significant difference between work values of female adolescents from

traditional and from nontraditional career families as a function of race as measured by the WVI.

The hypotheses were tested by the utilization of the Multiple Classification Analysis (MCA) (1969). The MCA program is designed to handle nominal independent variables (i.e. race, geographic location, employment status of the parents, and the educational level of the parents) and the interrelationships of the interval scale dependent variables (i.e. the scores of the WVI's fifteen scales). In addition to this advantage, the MCA program has the capabilities of providing output data that focuses on sets of predictions, such as race and geographic area, as well as the intercorrelations among the variables.

Ninety-five percent confidence intervals were established for the means. The data were analyzed for significant differences among each of the major independent variables (i.e. family employment status, race, geographic area, and parents' educational levels) on each of fifteen work value scales, as well as for intercorrelations among the variables.

Summary

This chapter reviewed the methods and procedures used to select the sample, the means of collecting data, and the methods of analyzing the data. Furthermore, the pilot

testing of the questionnaire and the means of analyzing the proportion of traditional and nontraditional families in Virginia were discussed.

CHAPTER 4

Results of the Study

The purpose of the study was to investigate the relationships of work values of tenth grade females from traditional and from nontraditional families in terms of the effects of parental educational level, geographic location, and race. This chapter presents the analysis of the data. The first section presents the demographic data of the subjects, the second describes the work values of the subjects. The findings as they related to the hypotheses are also discussed.

Demographic Data

Selected demographic data were collected in order to describe the subjects and to determine if relationships existed among selected characteristics of the subjects and work values. The demographic data included sex, race, age, geographic location, employment status of both parents, and educational level of the parents.

Personal Data

The personal data questionnaire was utilized to obtain information for the purpose of describing the female adolescent subjects and to assist in the analysis of the influence of the demographic variables on work values.

The first item recorded was the subject's name. This data was collected in order to return the WVI scores to the subjects and was later discarded to assume anonymity. The total number in the sample was 527. One additional student participated but returned an unuseable optical scan sheet. The number of females represented over 90 percent of all tenth grade females in the six participating schools.

In order to determine family categories (i.e. traditional/nontraditional), students furnished the following information: with whom she lives (i.e. mother and father, mother only, father only, or other) and father's and mother's employment status and occupation(s).

Families were categorized as "traditional" by the following criteria: (1) subject lived with both parents or parent substitutes, (2) father was fully employed, and (3) mother was a homemaker, not employed outside the home. Families were categorized as "nontraditional" by the following criteria: (1) subject lived with both parents or parent substitutes and (2) mother and father were both fully employed. Situations not meeting all the criteria for each category were considered "other" (e.g. single parents, unemployed, etc.). The number in the traditional group was 170 (32.3%), the nontraditional group included 215 (40.8%), and the other group included 142 (26.9%). Table 5 indicates the number and percentage in each of the parental employment categories.

Table 5
Number and Percentage of Female Adolescents by
Parental Employment Status

Parental Employment Status	Number in Group	Percentage
Traditional	171	32.3
Nontraditional	215	40.8
Other	142	26.9
Total	528	100.0

Table 6 includes the parental educational level grouping of the subjects by indicating the eight categories representing the highest educational level attained by the father and the mother. The greatest numbers in both the father group and the mother group were high school graduates. Tables 7 and 8 provide the subjects' parental educational levels by groups based on employment status (i.e. traditional and non-traditional).

The demographic variable of race was determined by the researcher and the counselors or classroom teachers. Black, white, and other groups were coded on each of the questionnaires after the subjects completed the data collecting process. The total number of black female subjects was 237 (45%), the total number of white subjects was 283 (53.7%), and the total number of other than black or white subjects was 7 (1.3%). Tables 9 and 10 indicate the number of subjects in each racial subgroup by the traditional and the nontraditional employment status of the parents.

Another demographic variable, geographic location, was determined by the location of the school. Two high schools were located in rural, predominantly white (over 90% of the student body) geographic areas. A third high school was located in a rural, predominantly black (over 90% of the student body) location. The three urban/suburban schools

Table 6

Educational Level of Female Adolescents' Parents

Educational Level	Father's Education		Mother's Education		Total	
	#	%	#	%	#	%
7th Grade or Less	42	8.0	18	3.4	60	5.70
More than 7th Grade and Less than High School Graduate	101	19.2	119	22.6	220	20.90
High School Graduate	177	33.6	233	44.2	410	38.90
Trade or Technical School	8	1.5	15	2.8	23	2.20
Some College	32	6.1	48	9.1	80	7.60
4 Year College Graduate	78	14.8	52	9.9	130	12.33
Post College	14	2.7	7	1.3	21	1.99
Other	75	14.2	35	6.6	110	10.40
Total	527	100.0	527	100.0	1,054*	100.00

*Total represents both parents of each subject.

Table 7

Educational Level of Female Adolescents' Parents by
Traditional Parental Employment Status

Educational Level	Father		Mother		Total	
	#	%	#	%	#	%
7th Grade or Less	11	6.5	7	4.1	18	5.29
Less than High School Graduate but More than 7th Grade	31	18.2	43	25.3	74	21.76
High School Graduate	60	35.3	64	37.6	124	36.47
Trade or Technical School	2	1.2	3	1.8	5	1.47
Some College	12	7.1	13	7.6	25	7.35
Graduate of 4 Year College	31	18.2	23	13.5	54	15.88
Post College	6	3.5	4	2.4	10	2.95
Other	17	10.0	13	7.6	30	8.83
Total	170	100.0	170	100.0	340	100.00

Table 8

Educational Level of Female Adolescents' Parents by
Nontraditional Parental Employment Status

Educational Level	Father		Mother		Total	
	#	%	#	%	#	%
7th Grade or Less	22	10.2	5	2.3	27	6.28
Less than High School Graduate but More than 7th Grade	45	20.9	41	19.1	86	20.00
High School Graduate	80	37.2	111	51.6	191	44.42
Trade or Technical School	6	2.8	8	3.7	14	3.26
Some College	10	4.7	24	11.2	34	7.91
Graduate of 4 Year College	28	13.0	16	7.4	44	10.23
Post College	8	3.7	3	1.4	11	2.56
Other	16	7.4	7	3.3	23	5.35
Total	215	100.00	215	100.0	430	100.00

Table 9

Race of Female Adolescents Participating in the Study

Race	Number	Percentage
Black	237	45.0
White	283	53.7
Other	7	1.3
Total	527	100.0

Table 10

Race of Female Adolescents Participating in the Study
Parental Employment Status

Race	Traditional Family		Nontraditional Family		Total	
	#	%	#	%	#	%
Black	70	41.2	80	37.2	150	38.96
White	99	58.2	130	60.5	229	59.48
Other	1	.6	5	2.3	6	1.56
Total	170	100.0	215	100.0	385	100.00

consisted of two high schools with large populations of black students (about 85% of the student body) and the sixth school was located in an area with a predominantly white school population (about 90% of the student body).

Work Values of Tenth Grade Female Students

For comparative purposes, the means of tenth grade females were computed for each scale of the WVI. The range of scores for each scale and the standard deviations were also computed. Tables 11-25 present these means, standard deviations, and the number for each group. Each table presents a dependent variable (i.e. the fifteen work values scales of the WVI). The independent (demographic) variables are listed in the tables for each of the work values scales. The following codes represent the demographic variables on each of the tables:

T = Traditional Family Employment Status

NT = Nontraditional Family Employment Status

B = Black Female Adolescents

W = White Female Adolescents

R = Rural Geographic Location

U = Urban Geographic Location

FEd = Fathers' Educational Level

Table 26 provides the grand means in rank order for each of the fifteen work values scales identified by the

Table 11

Achievement Work Value Scale Data for Female Adolescents
as Measured by the Work Values Inventory

Demographic Variable	Mean Score	Standard Deviation	Number in Group
T	13.42	1.77	170
NT	13.17	2.08	215
T/B	13.38	1.62	70
NT/B	13.15	2.06	80
T/W	13.49	1.87	99
NT/W	13.19	2.10	130
T/U	13.80	1.63	113
NT/U	13.40	1.59	136
T/R	13.51	2.03	57
NT/R	12.77	2.68	79

T = Traditional Family Employment Status
 NT = Nontraditional Family Employment Status
 B = Black Female Adolescents
 W = White Female Adolescents
 R = Rural Geographic Location
 U = Urban Geographic Location

Table 12

Altruism Work Value Scale Data for Female Adolescents
as Measured by the Work Values Inventory

Demographic Variable	Mean Score	Standard Deviation	Number in Group
T	12.79	2.24	170
NT	12.63	2.51	215
T/B	12.79	2.00	70
NT/B	12.76	2.20	80
T/W	12.82	2.40	99
NT/W	12.55	2.68	130
T/U	12.96	2.07	113
NT/U	12.68	2.37	136
T/R	12.46	2.53	57
NT/R	12.54	2.75	79

T = Traditional Family Employment Status
 NT = Nontraditional Family Employment Status
 B = Black Female Adolescents
 W = White Female Adolescents
 R = Rural Geographic Location
 U = Urban Geographic Location

Table 13

Associates Work Value Scale Data for Female Adolescents
as Measured by the Work Values Inventory

Demographic Variable	Mean Score	Standard Deviation	Number in Group
T	11.35	2.06	170
NT	11.43	1.97	215
T/B	11.16	2.09	70
NT/B	11.11	2.32	80
T/W	11.51	2.03	99
NT/W	11.58	1.70	130
T/U	11.39	2.04	113
NT/U	11.40	1.97	136
T/R	11.26	2.11	57
NT/R	11.48	2.97	79
T/B/R	11.36	2.06	14
T/B/U	11.18	2.01	57
T/W/R	11.30	2.01	44
T/W/U	11.67	2.06	55
NT/B/R	11.30	1.97	20
NT/B/U	11.05	2.23	60
NT/W/R	11.50	1.71	58
NT/W/U	11.64	1.70	72

T = Traditional Family Employment Status
 NT = Nontraditional Employment Status
 B = Black Female Adolescents
 W = White Female Adolescents
 R = Rural Geographic Location
 U = Urban Geographic Location

Table 14

Creativity Work Value Scale Data for Female Adolescents
as Measured by the Work Values Inventory

Demographic Variable	Mean Score	Standard Deviation	Number in Group
T	11.24	2.49	170
NT	10.92	2.65	215
T/B	11.67	2.25	70
NT/B	11.66	2.63	80
T/W	10.95	2.36	99
NT/W	10.49	2.65	130
T/U	11.27	2.75	113
NT/U	10.96	2.68	136
T/R	11.18	2.76	57
NT/R	11.84	2.68	29
T/B/R	12.00	2.15	14
T/B/U	11.51	2.31	57
T/W/R	10.84	2.89	44
T/W/U	11.04	2.42	55
NT/B/R	12.20	2.24	20
NT/B/U	11.48	5.59	60
NT/W/R	10.40	2.69	58
NT/W/U	10.57	2.62	72

T = Traditional Family Employment Status
 NT = Nontraditional Employment Status
 B = Black Female Adolescents
 W = White Female Adolescents
 R = Rural Geographic Location
 U = Urban Geographic Location

Table 15

Economic Returns Value Scale Data for Female Adolescents
as Measured by the Work Values Inventory

Demographic Variable	Mean Score	Standard Deviation	Number in Group
T	13.07	2.34	120
NT	13.18	1.99	215
T/B	13.63	1.75	70
NT/B	13.61	1.62	80
T/W	12.71	2.61	99
NT/W	12.95	2.18	130
T/U	13.24	2.13	113
NT/U	13.32	1.83	136
T/R	12.73	2.69	57
NT/R	12.94	2.24	79
T/B/R	13.42	1.69	14
T/B/U	13.63	1.79	57
T/W/R	12.48	2.89	44
T/W/U	12.89	2.37	55
NT/B/R	13.35	1.56	20
NT/B/U	13.70	1.63	60
NT/W/R	12.81	2.43	58
NT/W/U	13.05	1.96	72

T = Traditional Family Employment Status
 NT = Nontraditional Employment Status
 B = Black Female Adolescents
 W = White Female Adolescents
 R = Rural Geographic Location
 U = Urban Geographic Location

Table 16

Esthetics Value Scale Data for Female Adolescents
as Measured by the Work Values Inventory

Demographic Variable	Mean Score	Standard Deviation	Number in Group
T	9.19	2.85	170
NT	9.11	2.93	215
T/B	9.36	2.76	70
NT/B	9.58	2.96	80
T/W	9.05	2.91	99
NT/W	8.80	2.86	130
T/U	8.98	2.72	113
NT/U	8.97	3.03	136
T/R	9.61	3.07	57
NT/R	9.34	2.74	79
T/B/R	10.86	2.54	14
T/B/U	8.98	2.68	57
T/W/R	9.20	3.10	44
T/W/U	8.93	2.77	55
NT/B/R	10.70	2.96	20
NT/B/U	9.22	2.89	60
NT/W/R	8.83	2.51	58
NT/W/U	8.78	3.13	72

T = Traditional Family Employment Status
 NT = Nontraditional Employment Status
 B = Black Female Adolescents
 W = White Female Adolescents
 R = Rural Geographic Location
 U = Urban Geographic Location

Table 17

Independence Value Scale Data for Female Adolescents
as Measured by the Work Values Inventory

Demographic Variable	Mean Score	Standard Deviation	Number in Group
T	11.53	2.27	170
NT	11.50	2.41	215
T/B	11.96	2.19	70
NT/B	11.93	2.37	80
T/W	11.22	2.30	99
NT/W	11.28	2.40	130
T/U	11.67	2.02	115
NT/U	11.62	2.31	136
T/R	11.25	2.71	57
NT/R	11.32	2.57	79
T/B/R	12.14	3.11	14
T/B/U	11.91	1.91	57
T/W/R	10.98	2.51	44
T/W/U	11.42	2.13	55
NT/B/R	12.70	1.92	20
NT/B/U	11.67	2.47	60
NT/W/R	10.90	2.61	58
NT/W/U	11.60	2.21	72

T = Traditional Family Employment Status
 NT = Nontraditional Employment Status
 B = Black Female Adolescents
 W = White Female Adolescents
 R = Rural Geographic Location
 U = Urban Geographic Location

Table 18

Intellectual Stimulation Value Scale Data for Female
Adolescents as Measured by the Work Values Inventory

Demographic Variable	Mean Score	Standard Deviation	Number in Group
T	11.05	2.20	170
NT	10.93	2.33	215
T/B	11.43	2.05	70
NT/B	11.34	2.32	80
T/W	10.78	2.28	99
NT/W	10.70	2.32	130
T/U	11.05	2.19	113
NT/U	11.01	2.21	136
T/R	11.04	2.24	57
NT/R	10.77	2.51	79
T/B/R	12.21	1.12	14
T/B/U	11.23	2.16	57
T/W/R	10.66	2.35	44
T/W/U	10.87	2.24	55
NT/B/R	11.70	2.58	20
NT/B/U	11.21	2.23	60
NT/W/R	10.50	2.44	58
NT/W/U	10.86	2.23	72

T = Traditional Family Employment Status
 NT = Nontraditional Employment Status
 B = Black Female Adolescents
 W = White Female Adolescents
 R = Rural Geographic Location
 U = Urban Geographic Location

Table 19

Management Value Scale Data for Female Adolescents
as Measured by the Work Values Inventory

Demographic Variable	Mean Score	Standard Deviation	Number in Group
T	9.67	2.40	170
NT	9.68	2.36	215
T/B	9.87	2.28	70
NT/B	9.83	2.44	80
T/W	9.53	2.50	90
NT/W	9.64	2.27	130
T/U	9.58	2.35	113
NT/U	9.57	2.31	136
T/R	9.84	9.84	57
NT/R	9.87	9.87	79
T/B/R	11.00	2.42	14
T/B/U	9.57	2.16	57
T/W/R	9.45	2.43	44
T/W/U	9.58	2.57	55
NT/B/R	11.00	2.31	20
NT/B/U	9.43	2.37	60
NT/W/R	9.50	2.38	58
NT/W/U	9.75	2.18	72

T = Traditional Family Employment Status
 NT = Nontraditional Employment Status
 B = Black Female Adolescents
 W = White Female Adolescents
 R = Rural Geographic Location
 U = Urban Geographic Location

Table 20

Prestige Value Scale Data for Female Adolescents
as Measured by the Work Values Inventory

Demographic Variable	Mean Score	Standard Deviation	Number in Group
T	11.81	2.00	170
NT	11.80	2.14	215
T/B	12.04	1.87	70
NT/B	11.80	2.11	80
T/W	11.63	2.10	99
NT/W	11.83	2.14	130
T/U	11.71	1.97	113
NT/U	11.87	2.15	130
T/R	12.00	2.08	57
NT/R	11.68	2.13	79

T = Traditional Family Employment Status
 NT = Nontraditional Employment Status
 B = Black Female Adolescents
 W = White Female Adolescents
 R = Rural Geographic Location
 U = Urban Geographic Location

Table 21

Security Value Scale Data for Female Adolescents
as Measured by the Work Values Inventory

Demographic Variable	Mean Score	Standard Deviation	Number in Group
T	13.02	2.13	170
NT	13.28	1.95	215
T/B	13.17	2.03	70
NT/B	13.58	1.77	80
T/W	12.93	2.20	99
NT/W	13.12	2.06	130
T/U	13.04	2.09	113
NT/U	13.43	1.61	136
T/R	12.96	2.24	57
NT/B	13.03	2.43	79
T/B/R	13.36	2.13	14
T/B/U	13.16	2.08	57
T/W/R	12.87	2.33	44
T/W/U	12.96	2.12	55
NT/B/R	13.45	2.28	20
NT/B/U	13.63	1.59	60
NT/W/R	12.93	2.48	58
NT/W/U	13.28	1.65	72

T = Traditional Family Employment Status
 NT = Nontraditional Employment Status
 B = Black Female Adolescents
 W = White Female Adolescents
 R = Rural Geographic Location
 U = Urban Geographic Location

Table 22

Supervisory Relations Value Scale Data for Female Adolescents
as Measured by the Work Values Inventory

Demographic Variable	Mean Score	Standard Deviation	Number in Group
T	12.89	2.16	170
NT	12.94	2.38	215
T/B	13.17	1.97	70
NT/B	13.21	2.19	80
T/W	12.71	2.28	99
NT/W	12.76	2.50	130
T/U	13.03	2.01	113
NT/U	13.00	2.30	136
T/R	12.60	2.42	57
NT/R	12.82	2.52	79

T = Traditional Family Employment Status
 NT = Nontraditional Employment Status
 B = Black Female Adolescents
 W = White Female Adolescents
 R = Rural Geographic Location
 U = Urban Geographic Location

Table 23

Surroundings Value Scale Data for Female Adolescents
as Measured by the Work Values Inventory

Demographic Variable	Mean Score	Standard Deviation	Number in Group
T	12.77	2.15	170
NT	13.07	1.99	215
T/B	12.77	2.04	70
NT/B	13.29	1.91	80
T/W	12.79	2.07	99
NT/W	12.93	2.07	130
T/U	12.74	1.92	113
NT/U	13.15	1.77	130
T/R	12.52	2.38	57
NT/R	12.92	2.35	79

T = Traditional Family Employment Status
 NT = Nontraditional Employment Status
 B = Black Female Adolescents
 W = White Female Adolescents
 R = Rural Geographic Location
 U = Urban Geographic Location

Table 24

Variety Value Scale Data for Female Adolescents
as Measured by the Work Values Inventory

Demographic Variable	Mean Score	Standard Deviation	Number in Group
T	11.56	2.43	170
NT	11.48	2.47	215
T/B	12.03	2.43	70
NT/B	11.94	2.40	80
T/W	11.24	2.40	99
NT/W	11.25	2.44	130
T/U	11.77	2.42	113
NT/U	11.46	2.47	136
T/R	11.14	2.42	57
NT/R	11.51	2.47	79
T/B/R	12.21	2.58	14
T/B/U	11.98	2.39	57
T/W/R	10.82	2.28	44
T/W/U	11.58	2.47	55
NT/B/R	12.45	2.19	20
NT/B/U	11.77	2.46	60
NT/W/R	11.22	2.51	58
NT/W/U	11.28	2.41	72

T = Traditional Family Employment Status
 NT = Nontraditional Employment Status
 B = Black Female Adolescents
 W = White Female Adolescents
 R = Rural Geographic Location
 U = Urban Geographic Location

Table 25

Way of Life Value Scale Data for Female Adolescents
as Measured by the Work Values Inventory

Demographic Variable	Mean Score	Standard Deviation	Number in Group
T	13.85	1.69	170
NT	13.78	1.81	215
T/B	13.82	1.51	70
NT/B	13.97	1.41	80
T/W	13.87	1.80	99
NT/W	13.70	1.99	130
T/U	13.98	1.41	113
NT/U	13.91	1.40	136
T/R	13.58	2.12	57
NT/R	13.54	2.35	79

T = Traditional Family Employment Status
 NT = Nontraditional Employment Status
 B = Black Female Adolescents
 W = White Female Adolescents
 R = Rural Geographic Location
 U = Urban Geographic Location

Table 26

Grand Means of Work Values Inventory Scores
for Female Adolescents

Work Values	Grand Mean
Way of Life	13.83
Achievement	13.29
Security	13.18
Economic Returns	13.15
Surroundings	12.94
Supervisory Relations	12.92
Altruism	12.71
Prestige	11.82
Variety	11.54
Independence	11.53
Associates	11.38
Creativity	11.07
Intellectual Stimulation	10.99
Management	9.69
Esthetics	9.13

WVI. The work values of Way of Life, Achievement, Security, and Economic Returns received the highest mean scores. Management and Esthetics scales received the lowest mean scores.

Relationships Among Personal Variables and Work Values

Multiple Classification Analysis (Andrews, Morgan, and Sonquist, 1969) was used to determine the interrelationships among personal (independent) variables and scores on the fifteen scales of the WVI (dependent variables). The interrelationships of the independent variables and dependent variables were tested by adjusting for the effects of each of the variables. The effect of each independent variable on the dependent variable was analyzed both before and after taking into account the effects of the demographic variables. The independent or demographic variables were treated as sets or categories.

The MCA (1969) program's Analysis of Variance component was utilized to perform one-way, two-way, and three-way analyses of variance of the independent variables, deriving F ratios of significant differences. In this manner, the independent variables were adjusted for all interactions on each of the work values scales. Appendix F provides a summary of the Multiple Classification Analysis.

In order to determine the mean scores and frequencies of combined variables (e.g. Black females, from rural traditional families, etc.) a subprogram breakdown of the data was obtained for each work value scale wherein significant differences were detected. Table 14-19, 21, and 25 (pages 66-71, 73, and 77) contain relevant breakdown data. The description of each of the fifteen work values as described by Super (1970) was discussed in Chapter 2, page 34.

Table 27 is a rank ordering of the subjects' mean scores from the present study and the mean scores of Super's 1968 norm group of tenth graders (Super, 1970). Although the 1968 groups and the 1979 groups both listed Way of Life first, the latter group's second, third, and fourth rank ordered means had changed. Achievement, Security, and Economic Returns have become more important and Altruism has fallen to seventh from second.

Table 28 contains the ranked ordered mean scores of the subjects from traditional and from nontraditional families. The similarities of the two groups mean work values scores should be noted. This present study was not directed toward investigating stereotypic work values, per se, but the existence of these values was discussed in the literature as a dimension of females' work values. The

Table 27

Rank Order of Grand Means of Work Values Inventory
for Female Adolescents 1968 and 1979

<u>1979</u>	Mean	<u>1968</u>	Mean
Work Value		Work Value	
Way of Life	13.83	Way of Life	13.29
Achievement	13.29	Altruism	12.96
Security	13.18	Achievement	12.81
Economic Returns	13.15	Security	12.65
Surroundings	12.94	Supervisory Relations	12.49
Supervisory Relations	12.92	Economic Returns	12.22
Altruism	12.71	Surroundings	11.98
Prestige	11.82	Intellectual Stimulation	11.35
Variety	11.54	Associates	11.24
Independence	11.53	Creativity	11.08
Associates	11.38	Prestige	11.03
Creativity	11.07	Independence	10.99
Intellectual Stimulation	10.99	Variety	10.49
Management	9.69	Esthetics	9.11
Esthetics	9.13	Management	9.10

Table 28

Rank Order of Work Values Inventory Mean Scores for Tenth Grade
Females by Parental Employment Patterns

Work Values Scale	Mean Scores of Traditional Family Group	Work Values Scale	Mean Scores of Nontraditional Family Group
Way of Life	13.85	Way of Life	13.78
Achievement	13.42	Security	13.28
Economic Returns	13.07	Economic Returns	13.18
Security	13.02	Achievement	13.17
Supervisory Relations	12.89	Surroundings	13.07
Altruism	12.79	Supervisory Relations	12.93
Surroundings	12.77	Altruism	12.63
Prestige	11.81	Prestige	11.80
Variety	11.56	Independence	11.51
Independence	11.53	Variety	11.48
Associates	11.35	Associates	11.43
Creativity	11.24	Intellectual Stimulation	10.93
Intellectual Stimulation	11.05	Creativity	10.92
Management	9.67	Management	9.68
Esthetics	9.19	Esthetics	9.11

analysis of this data indicated marked similarities in the ranking of mean scores of the two groups. Security was second for the females from nontraditional families and fourth for the traditional family group.

Spearman's Rank Order Correlation was computed for the subjects' mean scores for traditional and nontraditional family groups, resulting in a .97 correlation coefficient. The same statistical analysis was utilized to compare 1968 rank ordered mean scores to the means of the subjects in this study. A correlation coefficient of .82 resulted. Appendix G contains the analysis of rank-ordered means.

Findings Related to the Hypotheses

Hypothesis 1: There is no statistically significant difference in the work values of female adolescents from traditional families and from nontraditional families.

The mean responses of tenth grade females from traditional families (i.e. father is fully employed and the mother not fully employed) and from nontraditional families (i.e. both parents are fully employed) were obtained for each of the fifteen WVI scales. The MCA was utilized for this procedure and detected no significant difference for students from traditional families and nontraditional families on any of the fifteen work values scales. The null hypothesis was retained.

Hypothesis 2: There is no statistically significant difference in work values of female adolescents from traditional and nontraditional families as a function of the educational level of the parents.

The relationship between the educational level of the parents of the subjects from traditional and nontraditional families and their work values was analyzed by MCA to detect significant differences between the groups. The father's educational level and the mother's educational level were analyzed separately and jointly with each group. The analysis resulted in one statistically significant difference. The father's educational level and the Security work value scale interacted at a significant level (Security: $F = 9.560$, $p = 0.002$) but the overall differences were slight.

Sample sizes of the categories were very small, frequently containing less than five subjects. The data from these categories were then collapsed into two categories: (1) high school graduation or less and (2) more than high school graduation. The resulting frequencies were unequal and sample size still small in some categories. Table 29 provides frequencies, means, and standard deviations for the Security work value scale and father's educational level as well as the added variables of race and geographic

Table 29

Security Work Value Scale Data for Female Adolescents as
a Function of Father's Educational Level

Demographic Variable	Mean Score	Standard Deviation	Number in Group
T/B/R/F Ed ₁	13.13	1.55	8
T/B/R/F Ed ₂	13.75	3.42	4
T/B/U/F Ed ₁	13.00	1.03	34
T/B/U/F Ed ₂	13.00	0.21	13
T/W/R/F Ed ₁	13.12	0.97	34
T/W/R/F Ed ₂	12.00	0.96	6
T/W/U/F Ed ₁	13.33	0.12	27
T/W/U/F Ed ₂	12.63	0.54	27
NT/B/R/F Ed ₁	13.44	1.11	16
NT/B/R/F Ed ₂	15.00	0.00	2
NT/B/U/F Ed ₁	13.76	0.04	42
NT/B/U/F Ed ₂	13.58	0.33	12
NT/W/R/F Ed ₁	13.31	0.44	49
NT/W/R/F Ed ₂	11.75	3.13	4
NT/W/U/F Ed ₁	13.78	0.01	37
NT/W/U/F Ed ₂	12.69	0.04	32

T = Traditional Family Employment Status
 NT = Nontraditional Employment Status
 B = Black Female Adolescents
 W = White Female Adolescents
 R = Rural Geographic Location
 U = Urban Geographic Location
 F Ed₁ = Father's Educational Attainment of High School
 Graduation or Less
 F Ed₂ = Father's Educational Attainment of More than
 High School

area of subjects from traditional and nontraditional families. Small sample frequencies still existed and no emerging pattern of direction of the means could be detected. The null hypothesis was rejected for this one subscale. For the other subscales the null hypothesis could not be rejected.

At this point, it should be noted that each hypothesis was in effect tested fifteen times, once for each of the subscales of the WVI. Therefore, null hypotheses were rejected or retained as dictated by the analysis of each of the subscales. In this case, for example, the null hypothesis would be retained in fourteen out of fifteen cases and rejected only for the subscale Security. Future discussions of the remaining hypotheses should be construed in these terms.

Hypothesis 3: There are no statistically significant differences in work values of female adolescents from traditional and from nontraditional families as a function of geographic location (i.e. rural and urban/suburban).

The MCA program was utilized to detect the relationship between work values, as measured by the WVI, of tenth grade female adolescents from traditional and nontraditional families when geographic location of the subjects was an added variable. The analysis resulted in one significant finding of the fifteen work values scales, Esthetic ($F =$

4.122, $p = 0.043$). Females from the traditional family groups scored highest within the racial grouping and rural students' mean scores were higher than urban students'. Table 16 (page 68) contains this data. The null hypothesis was therefore rejected.

Hypothesis 4: There are no statistically significant differences in work values of adolescent females from traditional and from nontraditional families as a function of race (i.e. black, white).

The subjects were further classified into three groups by race: white, black, and all other races. The WVI responses of black and white females from traditional and nontraditional families were investigated.

Race was analyzed as a main effect by the MCA program, resulting in significant differences on seven WVI scales: Associates ($F = 4.160$, $p = 0.042$); Creativity ($F = 12.853$, $p = 0.000$), Esthetics ($F = 5.337$, $p = 0.021$); Independence ($F = 6.487$); Economic Returns ($F = 9.740$, $p = 0.002$); and Variety ($F = 7.315$, $p = 0.007$).

Super (1970) noted there are four dimensions of work values identified by factor analysis of the results of the norm group. One of these dimensions was termed "Self Expression" which consisted of the Independence, Creativity, Esthetics, and Variety scales. All four scales of the Self

Expression Dimension identified by Super yielded significant differences in the current analysis.

The seven scales wherein differences were detected were further analyzed for combined effects of race and geographic location. Tables 13-18 and Table 24 (pages 66-70 and 76) present this data.

Geographic location and race, when entered as variables in the MCA program, also produced statistically significant differences on three scales: Management ($F = 9.735$, $p = 0.002$); Independence ($F = 5.246$, $p = 0.023$); and Esthetics ($F = 5.317$, $p = 0.022$).

Summary

This chapter has presented an analysis of the Work Values Inventory scores and the demographic data of the subjects participating in the study. Personal data responses were described and the relationships of the personal variables to work values were provided. Data from the Multiple Classification Analysis of the variables were presented. The final section presented the results of the findings for each hypothesis.

No statistically significant differences were detected in testing Hypothesis 1. Certain significant differences in subscale scores were detected in testing Hypothesis 2, Hypothesis 3, and Hypothesis 4. When geographic location,

educational level of the parents, and race respectively were considered, analysis revealed that for some of the fifteen scales, the null hypotheses could be rejected.

CHAPTER 5

Interpretation of Results

Chapter 5 describes the interpretation of the results of the study. The first section is a review of the problem and research methods. Section two provides the summary of the findings to the literature. Conclusions, implications, and discussion are given. The final section presents the recommendations for further study.

Review of the Problem and Research Methods

The purpose of this study was to investigate the work values of tenth grade females. More specifically, the following research questions were generated as a basis for the study:

1. Do work values of adolescent females from traditional families differ significantly from those of female adolescents from nontraditional families?
2. Is there a difference in work values of female adolescents from traditional and nontraditional families as a function of the educational level of the parents?
3. Is there a difference in work values of female adolescents from traditional and nontraditional families as a function of geographic location (i.e. rural and urban/suburban)?

4. Is there a difference in work values of female adolescents from traditional and nontraditional families as a function of race?

The data for this study were gathered through the administration of the WVI and the personal data questionnaire to 527 female adolescents located in six Virginia secondary schools. In addition to the information supplied by the subjects on the questionnaire, their race was indicated by classroom teachers and counselors. The geographic location of the schools was selected for a balance of rural and urban/suburban areas and a balance of Black and White subjects.

The Virginia Polytechnic Institute and State University Scoring Service was used to score the inventories and provide means, frequencies, and other data related to the scores. All the demographic data were assigned codes and entered on the optical scan sheets used by the subjects.

The Virginia Polytechnic Institute and State University Computer Center was used to analyze the results of the study. The Multiple Classification Analysis procedure was utilized to detect relationships between work values of females from traditional and nontraditional families as measured by the WVI and the added personal variables of race, parental education, and geographic location.

Summary of the Findings

The findings of the study will be discussed on the basis of the demographic variables as they relate to work values. The data from the study were examined by: (1) separately analyzing each of the demographic variables' effects on the work values of the subjects and (2) analyzing combined effects. The following section provides a summary of those findings.

1. Traditional and Nontraditional Families

From the findings of this study, there were no differences in the work values of females from traditional families and nontraditional families when the group was considered as a whole. Subjects' WVI mean scores, when rank ordered for the two groups, also reflected only minor differences. Security was ranked second in importance for females of the nontraditional family group and fourth for females from traditional homes. Table 28 (page 82) provides the rank order of mean scores of the two groups.

2. Geographic Location

The results of this study did indicate some differences exist between females from traditional and nontraditional families as a function of geographic location. Of the fifteen work values scales, only Esthetics was affected by geographic location of the two groups, with highest mean scores detected in rural females regardless of the other

variables. Mean scores of both groups reflected this scale to be least important of the fifteen values. The difference between the mean scores of the two groups with geographic location as a variable reflected .64 overall difference. Table 16 (page 68) contains data for the Esthetics work value scale as a function of geographic location.

3. Race and Geographic Location

The analysis of the data further indicated differences in work values of the two groups of subjects when location and race were considered simultaneously. The scales of Independence and Management were apparently related to the race and location of female adolescents although parental employment was not significant. Tables 17 and 19 (pages 69 and 71) summarized these data.

4. Educational Level of the Parents

The results of the study indicated the fathers' educational level affected the Security work value scale at a statistically significant level. The females with a non-traditional background scored slightly higher on this scale when the fathers' educational level was an added variable. However, no pattern could be observed concerning which of the seven educational levels were more prominent in higher or lower scores.

The mothers' educational level produced no statistically significant differences on any of the fifteen scales. The

fathers' education affected only the Security scale. Super (1970) reported the Security scale is associated with assurance of employment and is related to the work value of Economic Returns. This study found no relationship occurring between the two work values. Thus, the parental education level coupled with the type of family employment (i.e. traditional and nontraditional) produced statistically significant findings only on the Security scale. Sample size varied greatly and was quite small for some groups.

5. Parental Educational Level and Race and Geographic Location

The seven categories of fathers' educational levels of the females from the different family groups and the work value of Security produced a statistically significant difference but the sample size was rather small in some groups. In an attempt to alleviate this problem, the categories were collapsed into two groups: (1) high school graduation or less and (2) more than high school education. Furthermore, the combined effects of the fathers' education, subjects' race, and geographic location were considered together for the Security value. However, no clearcut conclusions were drawn with the added analysis because of the unequal and small sample sizes of the subgroup. Table 29 (page 85) summarizes this data.

6. Race

The race of the two groups of subjects (i.e. from traditional and nontraditional families) affected seven scales of the WVI: Associates, Creativity, Independence, Esthetics, Intellectual Stimulation, Economic Returns, and Variety. Super (1970) used factor analysis to identify four dimensions of WVI scales based on the results of the norm group's scores: Material, Goodness of Life, Self Expression, and Behavior Control. Of the seven work values scores showing statistically significant differences, four of them (i.e. Independence, Creativity, Variety, and Esthetics) comprise the third dimension, Self Expression.

On three of the four Self Expression scales (i.e. Esthetics, Creativity, and Variety), black females from traditional homes had higher scores than all white females regardless of family employment. In addition to this grouping of scores, black female mean scores were higher on Intellectual Stimulation, Variety, and Economic Returns scales with little differences between the kind of family employment. White females scored higher on only the Associates scale. The mean scores on the seven affected scales were higher for black females with one exception, the Associates scale, wherein white females had higher scores.

7. Female Adolescents and Work Values

The analysis of the results of the study generated no

significant differences on any of the fifteen scales when comparing responses of female adolescents from traditional and nontraditional families. A comparison of means of tenth grade females in Super's 1968 norm group (Super, 1970) to the means of subjects of this study revealed differences in mean scores as a measure of subjects' priorities. Economic Returns and Variety work values reflected the greatest mean gains for all subjects reflecting a greater emphasis on these work values. All the mean scores of the scales, except Intellectual Stimulation and Creativity, were higher than in 1968 suggesting that females were presently placing more emphasis on what they value in work. Way of Life, according to Super (1970), was rank ordered first in a hierarchy of importance with lowest importance being fifteenth. The mean scores of subjects of this study when rank ordered reflected that the Way of Life value still ranked first but Achievement now ranked second. Super's tenth grade females' mean scores, when ranked showed Altruism second. Today, Altruism is seventh with a decrease of .25 in the mean score. Table 26 (page 78) summarizes this data.

Relation of the Findings to the Literature

Of particular interest today is the role of working women and the effects of these women on the American culture.

This study was designed to investigate one aspect of this trend, that of work values female adolescents are formulating. In order to determine if working mothers are influencing their daughters' work values differently than traditional mothers who are homemakers, this study was designed to investigate tenth grade females work values as a function of parental employment patterns.

Hansen (1977) noted that differences in occupational values probably lie within the socialization process. The rank ordered means of this study reflected female adolescents place more importance on Achievement, Security, and Economic Returns than they did in 1968. Perhaps a trend may be noted in these shifts. Females in this study appear to be placing more emphasis on those less traditional female work values.

Super (1970) and Maccoby and Jacklin (1974) found that females have traditionally worked for approval, praise, and other extrinsic values, whereas males tended to express intrinsic interest in work itself. Economic Returns, Independence, Intellectual Stimulation, and, to some degree, Creativity scales reflect intrinsic values. The present study did not detect any statistically significant differences in females' scores when analyzed by parental

employment. However, rank ordered mean scores of females did reflect a greater emphasis on some intrinsic work values.

Altruism, according to Maccoby and Jacklin (1974), results from socialization patterns of females rather than an innate tendency. Bardwick (1971) found a female ego style was rooted in empathy and person-orientation. Super (1970) reported the Altruism work value mean score ranked second in importance for females in 1968. The findings of this study showed a downward shift of the Altruism values, from second to seventh of the fifteen scales. Thus, it would appear there is less emphasis on the Altruistic work value for female adolescents today, indicating a trend away from the traditionalism of the past.

The effects of working mothers on their children was studied by Bacon and Lerner (1975). They noted a decrease in vocational role stereotyping of females with working mothers. The findings of this study indicated there was no differences in work values as a function of mother's employment status.

Clarenbach (1977) noted the absence of research concerning career development of rural and minority females. There is also a paucity of research concerning parental educational

level and work values of females. This study should serve as a basis for future studies to fill the existing void.

In citing eight changing work and family patterns and social trends, Hansen (1975) noted ". . . (there is a) movement toward a more androgynous society in which roles in work and family are shared . . . and women are risking different kinds of patterns and self definitions based on their own needs." This trend may be substantiated by the findings of this study that females are scoring higher on traditionally male oriented work values of Achievement, Security, and Economic Returns.

Bem and Bem (1971) and Maccoby and Jacklin (1974) found role models for females often linked to the mother. Their findings were not substantiated by this study. It would appear that whether the female adolescents' mothers are full time homemakers or are employed full time outside the home have no significant bearing on the daughters' work values.

Conclusions, Implications, and Discussion

Conclusion #1

The work values of female adolescents from traditional and nontraditional families are similar. In addition, parental educational level and geographic location of female adolescents from traditional and nontraditional families appear to be of little consequence in their assessed work values.

Implications and Discussion for Conclusion #1. From the findings of this study, it is apparent that all female adolescents have similar work values, regardless of the mothers' and fathers' employment status. Maccoby and Jacklin (1974), Hansen (1974), and others have noted females frequently model after their mothers. In conjunction with the modeling concept and the fact that half of the American female population is presently employed, a conclusion might have been drawn that females from families wherein the mother and father are fully employed may seek different satisfactions from work than females where fathers are employed outside the home and the mothers have the traditional role of homemaker. The present study did not support this supposition.

The findings of the study should dispell some sex role myths. In addition, the modeling concept should not be generalized to work values. The findings of this study are beginnings to an understanding of the influences of the family on work values. Further work must be done, however, in order to aid teachers and counselors in understanding and helping females in their career development.

Conclusion #2

Black female adolescents scored higher than white females on eleven of the fifteen work scales and their values were frequently of an intrinsic nature.

Implications and Discussion for Conclusion #2. According to Zytowski (1970), the degree of job satisfaction a worker has results from the extent to which the individual's work values are met. Educators, in attempting to meet the needs of all groups, should be aware of influences of family and race on the career decision-making process. The absence of research in the field must be alleviated to avoid speculation and erroneous conclusions. The findings of this study should provide a beginning for more research. Female adolescents appear to be putting more emphasis on the importance of work values and black females more so than white females. Especially important to black females were the intrinsic values of Variety, Intellectual Stimulation, Independence, and Creativity. White females placed more emphasis on the extrinsic Associates value than did black females. All females stress Altruism less today than they did in 1968. Information of this nature could be valuable to aid the career counselor in understanding black and white females' career goals.

The analysis of all fifteen sets of scores revealed that black females tended to score higher on most scales. The meaning of this finding is unclear. The higher scores attained by black female adolescents on most work values scales could be the result of intervening variables.

variables intervening. The intrinsic nature of the work values which black female adolescents indicated as more important than extrinsic work values was evident although no conclusions could be drawn from the data.

Conclusion #3

The overall responses of the tenth grade females reflected higher mean scores than Super (1970) noted in 1968 for a similar group. The Way of Life scale was ranked as the most important work value by female adolescents both by Super (1970) and in this study. However, Altruism is now ranked lower and Achievement, Security, and Economic Returns showed higher rankings in 1979.

Implications and Discussion for Conclusion #3.

Stereotypic work values are entrenched in our society. Counselors and other educators should be aware that female adolescents place less emphasis on traditional values of Altruism and Esthetics and are stressing Achievement, Security, and Economic Returns. That counselors demonstrate sex role bias has been noted by Osipow (1968), Hansen (1977), Farmer and Backer (1977), and others. Research findings, such as noted from this study, can aid in dispelling myths about female career values.

The role modeling concept would indicate the daughters of mothers with a higher level of education might prefer

Creativity and Achievement. This assumption would be erroneous and educators involved in career counseling should be aware of this. Indeed, female adolescents are apparently interested in achievement in their future work and the educational attainment of the parents is not a relevant indicator of work values.

Recommendations for Further Study

This study was confined to the work values of female adolescents from traditional and nontraditional families with the primary criteria being that the mother is either fully employed outside the home or a full time homemaker. No distinction was made between varying occupations of the parents. From the findings there was obvious interaction of race and work values but no clear-cut distinctions emerged. Additionally, parental educational groupings resulted in some small samples and findings were inconclusive. In view of these comments, it is recommended that:

1. Research be conducted to investigate work values of female adolescents from traditional and nontraditional families as a function of occupational status of the parents.
2. Race of female adolescents be the major independent variable in order to delve more deeply into possible sociological influences on work values.
3. Future studies of this type include larger samples

of subjects with varying levels of parental educational attainment in order to assess their influence on the work values of female adolescents.

4. Work values of female adolescents be investigated with school achievement as a variable.

5. Research be conducted to investigate work values of female adolescents with the presence or absence of career education programs as a variable.

6. Work values of male adolescents be investigated and compared to those of female adolescents.

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APPENDICES

Appendix A

WORK VALUES INVENTORY

The statements below represent values which people consider important in their work. These are satisfactions which people often seek in their jobs or as a result of their jobs. They are not all considered equally important; some are very important to some people but of little importance to others. Read each statement carefully and indicate how important it is for you.

- 5 means "Very Important"
- 4 means "Important"
- 3 means "Moderately Important"
- 2 means "Of Little Importance"
- 1 means "Unimportant"

(Fill in one oval by each item to show your rating of the statement.)

Work in which you . . .

- | | |
|---|---------------|
| 1. . . . have to keep solving new problems. | (5 4 3 2 1) |
| 2. . . . help others. | (5 4 3 2 1) |
| 3. . . . can get a raise. | (5 4 3 2 1) |
| 4. . . . look forward to changes in your job. | (5 4 3 2 1) |
| 5. . . . have freedom in your own area. | (5 4 3 2 1) |
| 6. . . . gain prestige in your field. | (5 4 3 2 1) |
| 7. . . . need to have artistic ability. | (5 4 3 2 1) |
| 8. . . . are one of the gang. | (5 4 3 2 1) |
| 9. . . . know your job will last. | (5 4 3 2 1) |
| 10. . . . can be the kind of person you would like to be. | (5 4 3 2 1) |
| 11. . . . have a boss who gives you a square deal. | (5 4 3 2 1) |
| 12. . . . like the setting in which your job is done. | (5 4 3 2 1) |
| 13. . . . get the feeling of having done a good day's work. | (5 4 3 2 1) |
| 14. . . . have authority over others. | (5 4 3 2 1) |
| 15. . . . try out new ideas and suggestions. | (5 4 3 2 1) |
| 16. . . . create something new. | (5 4 3 2 1) |
| 17. . . . know by the results when you've done a good job. | (5 4 3 2 1) |
| 18. . . . have a boss who is reasonable. | (5 4 3 2 1) |
| 19. . . . are sure of always having a job. | (5 4 3 2 1) |
| 20. . . . add beauty to the world. | (5 4 3 2 1) |
| 21. . . . make your own decisions. | (5 4 3 2 1) |

Donald E. Super

5 means "Very Important"
 4 means "Important"
 3 means "Moderately Important"
 2 means "Of Little Importance"
 1 means "Unimportant"

- 22. . . . have pay increases that keep up with the cost of living. 5 4 3 2 1
- 23. . . . are mentally challenged. 5 4 3 2 1
- 24. . . . use leadership abilities. 5 4 3 2 1
- 25. . . . have adequate lounge, toilet and other facilities. 5 4 3 2 1
- 26. . . . have a way of life, while not on the job, that you like. 5 4 3 2 1
- 27. . . . form friendships with your fellow employees. 5 4 3 2 1
- 28. . . . know that others consider your work important. 5 4 3 2 1
- 29. . . . do not do the same thing all the time. 5 4 3 2 1
- 30. . . . feel you have helped another person. 5 4 3 2 1
- 31. . . . add to the well-being of other people. 5 4 3 2 1
- 32. . . . do many different things. 5 4 3 2 1
- 33. . . . are looked up to by others. 5 4 3 2 1
- 34. . . . have good contacts with fellow workers. 5 4 3 2 1
- 35. . . . lead the kind of life you most enjoy. 5 4 3 2 1
- 36. . . . have a good place in which to work (good lighting, quiet, clean, enough space, etc.) 5 4 3 2 1
- 37. . . . plan and organize the work of others. 5 4 3 2 1
- 38. . . . need to be mentally alert. 5 4 3 2 1
- 39. . . . are paid enough to live right. 5 4 3 2 1
- 40. . . . are your own boss. 5 4 3 2 1
- 41. . . . make attractive products. 5 4 3 2 1
- 42. . . . are sure of another job in the company if your present job ends. 5 4 3 2 1
- 43. . . . have a supervisor who is considerate. 5 4 3 2 1
- 44. . . . see the results of your efforts. 5 4 3 2 1
- 45. . . . contribute new ideas. 5 4 3 2 1

Appendix B

**Women in the labor force, annual averages,
selected years, 1950-76**

(Numbers in thousands)

Year	Labor force		
	Total, both sexes	Women	
		Number	Percent of total
1950	62,208	18,389	29.6
1955	65,023	20,584	31.6
1960	69,628	23,240	33.4
1965	74,455	26,200	35.2
1970	82,715	31,520	38.1
1975	92,613	36,998	39.9
1976	94,773	38,414	40.5

Labor force participation of women by age, annual averages, selected years, 1950-76

	Percent of population in labor force			
	1950	1960	1970	1976
Total, 16 years and over ..	33.9	37.7	43.3	47.3
16 and 17	30.1	29.1	34.9	40.7
18 and 19	51.3	50.9	53.6	59.0
20 to 24	46.0	46.1	57.7	65.0
25 to 34	34.0	36.0	45.0	57.1
35 to 44	39.1	43.4	51.1	57.8
45 to 54	37.9	49.8	54.4	55.0
55 to 64	27.0	37.2	43.0	41.1
65 and over	9.0	10.8	9.7	8.2

Labor force participation rates of women and men, annual averages, 1950-76

Year	Percent of population in labor force	
	Women	Men
1950	33.9	86.4
1951	34.6	86.5
1952	34.7	86.3
1953	34.4	86.0
1954	34.6	85.5
1955	35.7	85.3
1956	36.9	85.5
1957	36.9	84.8
1958	37.1	84.2
1959	37.1	83.7
1960	37.7	83.3
1961	38.1	82.9
1962	37.9	82.0
1963	38.3	81.4
1964	38.7	81.0
1965	39.3	80.7
1966	40.3	80.4
1967	41.1	80.4
1968	41.6	80.1
1969	42.7	79.8
1970	43.3	79.7
1971	43.3	79.1
1972	43.9	79.0
1973	44.7	78.8
1974	45.6	78.7
1975	46.3	77.9
1976	47.3	77.5

Women by marital and labor force status and presence and age of own children, March 1976

(Numbers in thousands)

Item	Total	With no children under 18 years	With children under 18 years				
			Total	14 to 17 years, none younger	6 to 13 years, none younger	3 to 5 years, none younger	Under 3 years
Total, 16 years and over	80,834	50,265	30,568	4,831	11,787	6,170	7,781
In labor force	37,817	22,923	14,895	2,767	6,571	2,926	2,631
Labor force participation rate	46.8	45.6	48.7	57.3	55.7	47.4	33.8
Unemployment rate	8.5	8.3	8.8	5.2	7.1	10.2	15.4
Never married, total	15,409	14,756	653	29	155	180	290
In labor force	9,083	8,786	297	18	81	99	99
Labor force participation rate	58.9	59.5	45.4	(¹)	52.4	55.1	34.1
Unemployment rate	11.7	11.4	20.0	(¹)	11.3	22.3	25.9
Married, husband present, total	47,852	22,490	25,361	3,984	9,550	5,044	6,774
In labor force	21,554	9,860	11,693	2,194	5,076	2,227	2,197
Labor force participation rate	45.0	43.8	46.1	55.1	53.1	44.1	32.4
Unemployment rate	7.1	6.2	7.9	4.7	6.4	8.7	13.8
Married, husband absent, total	3,145	1,410	1,735	198	664	412	461
In labor force	1,801	821	980	119	408	248	205
Labor force participation rate	57.3	58.2	56.5	60.2	61.5	60.1	44.3
Unemployment rate	13.7	9.7	17.1	11.3	13.6	19.1	25.3
Divorced, total	4,408	2,294	2,114	331	1,086	479	218
In labor force	3,146	1,576	1,571	272	852	329	117
Labor force participation rate	71.4	68.7	74.3	82.2	78.5	68.7	53.8
Unemployment rate	7.5	6.8	8.1	3.4	7.6	10.1	17.9
Widowed, total	10,020	9,315	705	289	323	55	38
In labor force	2,233	1,880	354	164	154	23	13
Labor force participation rate	22.3	20.2	50.2	56.6	47.6	(¹)	(¹)
Unemployment rate	6.1	5.5	9.5	9.4	8.6	(¹)	(¹)

¹Rate not shown where base is less than 75,000.

Labor force participation rate equals percent of population in labor force.
Unemployment rate equals percent of labor force unemployed.

NOTE: Children are defined as "own" children of the family head and include never married sons and daughters, stepchildren, and adopted children. Excluded are other related children such as grandchildren, nieces, nephews, and cousins, and unrelated children.

**Employed women, full or part time, by marital status and presence and age of own children,
March 1976**

(Numbers in thousands)

Item	Total	With no children under 18 years	With children under 18 years				
			Total	14 to 17 years, none younger	6 to 13 years, none younger	3 to 5 years, none younger	Under 3 years
Total, employed women 16 years and over	34,609	21,027	13,582	2,623	6,105	2,628	2,227
Worked full time	24,563	15,172	9,391	1,859	4,221	1,803	1,509
Worked part time	10,046	5,854	4,191	764	1,884	825	718
Never married, total	8,024	7,787	237	15	72	77	73
Worked full time	5,132	4,947	185	9	66	52	58
Worked part time	2,892	2,839	52	6	6	25	15
Married, husband present, total	20,023	9,523	10,770	2,091	4,751	2,034	1,894
Worked full time	14,241	7,162	7,079	1,422	3,092	1,323	1,241
Worked part time	5,783	2,091	3,692	669	1,659	711	652
Married, husband absent, total	1,553	742	812	106	353	200	153
Worked full time	1,253	598	655	89	287	154	126
Worked part time	300	144	156	17	66	46	27
Divorced, total	2,912	1,469	1,443	263	788	296	96
Worked full time	2,517	1,273	1,244	237	671	260	76
Worked part time	395	196	199	26	116	36	20
Widowed, total	2,097	1,776	320	148	141	20	11
Worked full time	1,421	1,192	229	102	104	14	8
Worked part time	676	584	92	46	36	7	3

NOTE: Children are defined as "own" children of the family head and include never-married sons and daughters, stepchildren, and adopted children. Excluded are other related children as grandchildren, nieces, nephews, and cousins, and unrelated children.

Full-time workers are those who usually work 35 or more hours per week; part-time workers are those who usually work 1 to 34 hours per week.

Number of own children by age of children, type of family, and employment status of parents, March 1976

(In thousands)

Item	Children under 18 years					Item	Children under 18 years				
	Total	Children 6 to 17 years			Under 6 years		Total	Children 6 to 17 years			Under 6 years
		Total	14 to 17 years	6 to 13 years				Total	14 to 17 years	6 to 13 years	
ALL CHILDREN						CHILDREN IN HUSBAND-WIFE FAMILIES					
Total	61,697	44,058	15,680	28,378	17,639	Continued					
Mother in labor force	28,159	21,720	8,262	13,458	6,439	Father unemployed	2,486	1,544	455	1,090	942
Employed	25,628	20,035	7,724	12,311	5,593	Mother in labor force	1,133	764	228	536	369
Unemployed	2,531	1,685	538	1,147	846	Employed	902	621	181	439	281
Mother not in labor force	32,828	21,708	7,971	14,637	11,120	Unemployed	231	143	47	96	88
CHILDREN IN HUSBAND-WIFE FAMILIES						Mother not in labor force	1,353	781	227	554	573
Total	51,586	36,255	12,865	23,389	15,332	Father not in labor force	2,433	1,955	856	1,099	478
Mother in labor force	22,868	17,488	6,769	10,719	5,380	Mother in labor force	894	763	379	384	130
Employed	21,049	16,303	6,387	9,916	4,746	Employed	813	692	350	342	121
Unemployed	1,819	1,185	383	802	634	Unemployed	81	71	29	42	10
Mother not in labor force	28,718	18,767	6,096	12,670	9,952	Mother not in labor force	1,539	1,192	477	714	347
Father employed	45,576	32,156	11,403	20,753	13,419	CHILDREN IN OTHER FAMILIES					
Mother in labor force	20,412	15,676	6,066	9,590	4,736	In families headed by women ¹	9,401	7,173	2,468	4,706	2,227
Employed	18,956	14,726	5,783	8,943	4,230	Mother in labor force	5,291	4,232	1,493	2,739	1,059
Unemployed	1,457	950	303	647	507	Employed	4,579	3,732	1,338	2,394	847
Mother not in labor force	25,163	16,481	5,317	11,164	8,683	Unemployed	712	500	155	345	212
Father in Armed Forces	1,092	599	152	447	493	Mother not in labor force	4,110	2,942	975	1,967	1,168
Mother in labor force	429	285	76	209	144	In families headed by men ¹	710	630	347	283	80
Employed	378	265	73	192	113						
Unemployed	51	20	3	17	30						
Mother not in labor force	663	314	75	238	349						

¹Widowed, divorced, married, spouse absent, and never-married family heads

NOTE: Children are defined as "own" children of the family head and include never-married sons and daughters, stepchildren, and adopted children. Excluded are other related children such as grandchildren, nieces, nephews, and cousins, and unrelated children.

Appendix C

TABLE 7
PERCENTILE NORMS FOR 10th GRADE GIRLS
N=777

Raw Score	SCALES															Raw Score
	AI	Es	Cr	IS	Ac	In	Pr	Ma	ER	Se	Su	SR	As	WL	Va	
15	85	99	96	98	90	98	97	100	92	88	95	90	98	82	98	15
14	60	96	88	90	69	93	90	98	76	66	82	72	91	54	94	14
13	42	92	78	78	48	82	78	95	59	48	64	55	78	34	86	13
12	28	85	63	61	29	65	64	90	42	33	44	37	62	21	73	12
11	17	75	47	41	15	48	48	79	26	22	28	22	44	12	57	11
10	11	62	32	25	7	31	33	65	15	14	17	12	28	6	42	10
9	6	49	18	13	4	18	20	49	9	7	10	6	15	4	27	9
8	3	36	10	6	2	9	11	32	5	4	6	3	6	3	14	8
7	2	23	5	2	2	5	5	18	2	3	4	2	3	2	6	7
6	1	13	3	1	1	2	2	8	1	1	2	1	1	1	3	6
5	1	6	1	--	1	1	1	4	--	1	1	1	--	1	1	5
4	--	2	--	--	--	--	--	2	--	--	--	--	--	1	--	4
3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3
2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
M	12.96	9.11	11.08	11.35	12.81	10.99	11.03	9.10	12.22	12.65	11.98	12.49	11.24	13.29	10.49	M
SD	2.13	2.64	2.35	2.03	1.90	2.16	2.29	2.25	2.19	2.25	2.21	2.09	2.03	2.03	2.26	SD

THE WORK VALUES INVENTORY

TABLE 11
PERCENTILE NORMS FOR 12th GRADE GIRLS
N=724

Raw Score	SCALES														Raw Score	
	AI	Es	Cr	IS	Ac	In	Pr	Ma	ER	Se	Su	SR	As	WL		Va
15	84	98	97	98	86	97	98	99	92	87	93	88	98	80	97	15
14	59	94	89	89	63	91	90	98	75	65	79	69	92	49	90	14
13	44	90	79	73	42	81	76	96	57	48	61	52	82	31	80	13
12	30	84	66	55	25	66	59	90	40	33	42	34	68	18	67	12
11	18	76	50	37	13	48	44	80	26	22	26	20	49	9	50	11
10	11	66	34	23	7	32	31	66	16	15	15	10	30	5	34	10
9	6	54	21	13	4	18	18	48	9	10	8	5	17	3	21	9
8	3	41	12	6	3	10	10	32	5	6	4	3	9	2	12	8
7	2	28	7	3	2	4	5	18	3	4	2	2	4	2	6	7
6	1	18	3	1	2	2	3	8	2	2	2	1	1	2	3	6
5	1	9	1	--	1	1	1	4	1	2	1	1	--	2	1	5
4	--	4	--	--	1	--	--	2	1	2	--	--	--	1	--	4
3	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	3
2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
M	12.90	8.87	10.90	11.50	13.01	10.99	11.16	9.09	12.23	12.53	12.17	12.65	11.00	13.45	10.87	M
SD	2.22	2.90	2.37	2.10	2.04	2.20	2.31	2.24	2.29	2.53	2.11	2.09	2.08	2.08	2.33	SD

THE WORK VALUES INVENTORY

Appendix D

**WORK VALUES OF FOUR ADULT MALE OCCUPATIONAL GROUPS
FORM D****

Work Value	Business School Students N=156		Machinist Students N=185		Peace Corps Teacher-Trainees N=85		School Counselors N=164	
	M	SD	M	SD	M	SD	M	SD
Altruism	19.6	4.58	16.0	5.83	21.1	5.82	20.6*	5.1
Esthetics	12.5	6.58	12.8	5.35	15.4	7.92	6.6*†	6.0
Creativity	4.9	3.51	7.7	5.21	17.2	7.15	7.5†	5.3
Intellectual								
Stimulation	17.4	6.37	16.8	5.98	19.7	5.40	12.2*†	5.2
Independence	18.4	6.18	18.2	6.60	12.7	5.84	10.4*	5.5
Achievement	17.3	4.34	17.0	4.86	15.2	5.15	14.1*	5.1
Prestige	10.3	6.84	9.8	5.33	14.0	5.75	17.8*†	5.6
Management	21.8	5.37	18.8	5.74	11.9	7.35	8.15*†	5.6
Economic Returns	16.5	6.27	16.4	6.39	9.1	6.39	19.2*†	6.5
Security	9.6	5.40	9.6	5.31	5.5	5.88	14.15*†	8.5
Surroundings	14.2	5.14	13.9	5.18	9.8	4.65	15.5†	5.2
Supervisory								
Relations	5.0	4.52	8.4	5.43	8.9	4.60	13.55*†	6.5
Associates	19.2	5.54	18.5	5.58	15.8	5.17	18.0	6.2
Variety	12.5	4.20	13.5	4.94	16.9	5.77	14.9	6.4
Way of Life	10.0	6.07	7.7	5.93	17.3	6.01	17.0*	5.3

*Counselors differ from Machinists at better than .001 level of confidence (t-test).

†Counselors differ from Peace Corps Teachers at better than .001 level of confidence (t-test).

**210-item forced choice form. Scores for each value could range from 0 to 28.

MEANS AND SIGMAS FOR EIGHT OCCUPATIONAL SAMPLES
 FORM 1964*
 Part I 105 Forced-Choice Items
 Part II 15 Rated Items (5-Point Scale)

Work Values	Psychiatrists ¹ N=33	Psychologists ¹ N=59	Teachers ¹ N=44	Priests ¹ N=32	Lawyers ¹ N=34	CPAs ¹ N=33	Engineers ¹ N=47	Engineers ² N=59
Altruism								
Mean	14.39	12.69	12.77	16.75	9.09	9.52	8.79	8.77
S.D.	4.52	5.23	4.97	3.60	4.98	5.15	4.82	5.15
Esthetics								
Mean	6.03	5.15	4.75	8.09	5.24	4.27	5.02	3.52
S.D.	4.50	4.58	3.94	4.37	3.70	3.12	2.86	2.72
Creativity								
Mean	14.61	13.93	11.41	13.44	12.79	13.76	14.72	14.69
S.D.	3.13	3.83	4.65	3.60	3.76	4.08	3.68	3.13
Intell. Stim.								
Mean	15.36	13.68	12.27	14.00	15.79	14.64	15.00	14.61
S.D.	3.18	3.25	3.42	4.02	2.54	3.98	3.48	3.25
Achievement								
Mean	14.76	14.53	13.98	13.91	16.12	15.39	14.89	15.42
S.D.	2.97	3.46	3.59	3.07	2.27	2.01	2.33	2.67
Independence								
Mean	8.79	8.59	7.77	5.97	9.50	7.03	6.02	6.94
S.D.	4.70	4.34	4.91	3.40	4.64	4.22	3.85	4.12
Prestige								
Mean	11.42	11.24	12.75	10.16	11.15	11.94	12.21	12.98
S.D.	4.25	3.98	4.45	4.35	3.78	4.35	4.08	3.98
Management								
Mean	10.67	9.90	9.82	11.88	11.03	12.36	13.47	11.42
S.D.	3.96	4.34	4.48	3.72	5.20	5.02	4.21	5.13
Economic Ret.								
Mean	9.64	11.20	10.91	5.00	12.21	12.00	11.68	12.37
S.D.	4.01	4.36	5.30	3.93	5.43	5.33	5.24	4.79
Security								
Mean	6.64	6.68	10.25	7.50	7.97	8.33	9.09	7.49
S.D.	3.73	3.52	4.70	3.91	4.23	4.05	4.14	3.83
Surroundings								
Mean	9.33	8.69	10.50	9.16	10.41	9.79	9.72	8.18
S.D.	3.01	3.61	3.60	3.47	3.68	3.34	3.49	3.61
Supervisory Relations								
Mean	8.88	9.66	8.95	9.13	7.76	8.70	9.79	10.49
S.D.	3.78	3.53	4.11	3.04	3.33	3.74	3.29	3.99
Associates								
Mean	9.36	9.59	10.18	9.69	8.18	9.15	8.81	9.00
S.D.	3.38	3.72	3.77	3.57	2.68	3.18	3.39	3.41
Variety								
Mean	5.91	9.76	9.07	5.94	7.21	8.39	7.15	8.54
S.D.	4.43	4.75	4.62	3.37	4.06	4.62	3.86	4.47
Way of Life								
Mean	12.82	14.25	13.64	14.69	13.62	13.09	12.13	13.20
S.D.	4.37	4.74	4.93	3.34	3.71	3.75	4.62	5.03

*Scores can range from 1 to 19.

¹Baltimore samples, courtesy of Dr. R. H. Normile (1967).

²Schenectady sample, courtesy of Dr. W. J. Dipboye (1963).

**SIGNIFICANT WORK VALUE DIFFERENCES
AMONG SEVEN OCCUPATIONAL GROUPS***

Work Value	Occupational Group	Direction of M Difference**	Occupational Groups
Altruism	Priests Psychiatrists	higher than higher than	All other groups Lawyers, CPAs, and Engineers
	Psychologists Teachers	higher than higher than	Lawyers, Engineers Engineers
Esthetics	Priests	higher than	Teachers, CPAs
Creativity	Teachers	lower than	Psychiatrists, and Engineers
Intellectual Stimulation	Teachers	lower than	Psychiatrists, Lawyers, Engineers
Independence	Lawyers	higher than	Engineers
Management	Engineers	higher than	Psychologists, and Teachers
Economic Returns	Priests	lower than	All other groups
Security	Teachers	higher than	Psychiatrists, and Psychologists
Variety	Psychologists	higher than	Psychiatrists, and Priests

*Courtesy of Dr. R. H. Normile (1967).

**p < .01

Appendix E

QUESTIONNAIRE

1. Name _____ 2. Age _____ 3. Sex _____
 4. What do you plan to do when you finish your education?
Be as exact as you can. For example: nurse, auto
mechanic, etc.) _____
 5. What kind of classes are you taking in high school?
(Circle one)
College Prep Vocational General Education
 6. With whom do you live? (Circle one)
Both Parents Mother only Father only
Other (if "other" please explain) _____
- Please answer the questions below about your parent(s). If you live with someone other than your parent(s), answer the questions as if they were your parents.
7. Father is employed: (Circle one)
Fulltime Parttime Unemployed
Other (if "other" please explain) _____
 8. If father works, for whom does he work? (for example:
Bell Telephone Co., Smith Industry, etc.) _____

 9. What is your father's occupation? (for example: auto
mechanic, postman, etc.) _____
 10. What grade or level of education did your father com-
plete? _____
 11. Is your mother a fulltime housewife? (Circle one)
Yes No
 12. If mother is employed outside the home, she is employed:
(Circle one)
Fulltime Parttime Unemployed
Other (if "other" please explain)
 13. If mother works, for whom does she work? (please give
name of company, business, industry, etc.) _____

 14. What is your mother's occupation? (for example: nurse,
secretary, etc.) _____
 15. What grade or level of education did your mother com-
plete? _____

Appendix F

Analysis of Variance
Achievement
Traditional-Nontraditional

By AC
TNO
RACE
RU
With FED
MED

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>	<u>Significance of F</u>
Main Effects	16.910	3	5.637	1.489	0.217
TNO	6.091	1	6.091	1.609	0.205
RACE	2.284	1	2.284	0.603	0.438
RU	9.835	1	9.835	2.597	0.108
Covariates	3.004	2	1.502	0.397	0.673
FED	2.739	1	2.739	0.723	0.396
MED	1.687	1	1.687	0.445	0.505
2-Way Interactions	12.929	3	4.310	1.138	0.334
TNO RACE	0.090	1	0.090	0.024	0.877
TNO RU	11.907	1	11.907	3.144	0.077
RACE RU	0.801	1	0.801	0.212	0.646
3-Way Interactions	4.295	1	4.295	1.134	0.288
TNO RACE RU	4.295	1	4.295	1.134	0.288

Covariate	Raw Regression Coefficient
FED	-0.050
MED	0.047

Multiple Classification Analysis
Achievement
Traditional-Nontraditional

By AC
TNO
RACE
RU
With FED
MED

Grand Mean = 13.29

<u>Variable + Category</u>	<u>N</u>	<u>Unadjusted Deviation</u>	<u>Adjusted for Independents Deviation</u>	<u>Adjusted for Independents + Covariates Deviation</u>
TNO				
1 Traditional	169	0.14	0.14	0.15
2 Nontraditional	210	-0.12	-0.11	-0.12
RACE				
0 Black	150	-0.05	-0.10	-0.10
1 White	229	0.03	0.06	0.06
RU				
0 Rural	135	-0.20	-0.22	-0.23
1 Urban	244	0.11	0.12	0.13
Multiple R Squared			0.012	0.014
Multiple R			0.109	0.118

Analysis of Variance
Altruism
Traditional-Nontraditional

By AL
TNO
RACE
RU
With FED
MED

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>	<u>Significance of F</u>
Main Effects	9.768	3	3.256	0.568	0.637
TNO	2.269	1	2.269	0.030	0.862
RACE	0.173	1	0.173	0.030	0.862
RU	6.145	1	6.145	1.071	0.301
Covariates	4.192	2	2.096	0.365	0.694
FED	0.361	1	0.361	0.063	0.802
MED	1.855	1	1.855	0.323	0.570
2-Way Interactions	16.178	3	5.393	0.940	0.421
TNO RACE	2.262	1	2.262	0.394	0.530
TNO RU	5.561	1	5.561	0.970	0.325
RACE RU	9.055	1	9.055	1.579	0.210
3-Way Interactions	6.915	1	6.915	1.206	0.273
TNO RACE RU	6.915	1	6.915	1.206	0.273

Covariate	Raw Regression Coefficient
FED	-0.018
MED	-0.049

Multiple Classification Analysis
Altruism
Traditional-Nontraditional

By TNO
RACE
RU
With FED
MED

Grand Mean = 12.71

<u>Variable + Category</u>	<u>N</u>	<u>Unadjusted Deviation</u>	<u>Adjusted for Independents Deviation</u>	<u>Adjusted for Independents + Covariates Deviation</u>
TNO				
1 Traditional	169	0.09	0.09	0.10
2 Nontraditional	210	-0.07	-0.07	-0.08
RACE				
0 Black	150	0.07	0.03	0.02
1 White	229	-0.04	-0.02	-0.01
RU				
0 Rural	135	-0.19	-0.18	-0.21
1 Urban	244	0.10	0.10	0.12
Multiple R Squared			0.005	0.006
Multiple R			0.067	0.081

Analysis of Variance
Associates
Traditional-Nontraditional

By AS
TNO
RACE
RU
With FED
MED

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>	<u>Significance of F</u>
Main Effects	16.992	3	5.664	1.406	0.241
TNO	0.078	1	0.078	0.019	0.889
RACE	16.761	1	16.761	4.160	0.042
RU	1.509	1	1.509	0.375	0.541
Covariates	8.721	2	4.360	1.082	0.340
FED	0.682	1	0.682	0.169	0.681
MED	8.137	1	8.137	2.020	0.156
2-Way Interactions	4.878	3	1.626	0.404	0.751
TNO RACE	0.181	1	0.181	0.045	0.832
TNO RU	2.049	1	2.049	0.509	0.476
RACE RU	2.252	1	0.166	0.041	0.839
3-Way Interactions	0.166	1	0.166	0.041	0.839
TNO RACE RU	0.166	1	0.166	0.041	0.839

Covariate	Raw Regression Coefficient
FED	0.025
MED	-0.103

Multiple Classification Analysis
 Associates
 Traditional-Nontraditional

By AS
 TNO
 RACE
 RU
 With FED
 MED

Grand Mean = 11.38

<u>Variable + Category</u>	<u>N</u>	<u>Unadjusted Deviation</u>	<u>Adjusted for Independents Deviation</u>	<u>Adjusted for Independents + Covariates Deviation</u>
TNO				
1 Traditional	169	-0.02	-0.02	-0.01
2 Nontraditional	210	0.02	0.01	0.01
RACE				
0 Black	150	-0.25	-0.27	-0.28
1 White	229	0.16	0.17	0.18
RU				
0 Rural	135	-0.02	-0.09	-0.11
1 Urban	244	0.01	0.05	0.06
Multiple R Squared			0.011	0.017
Multiple R			0.106	0.130

Analysis of Variance
Creativity
Traditional-Nontraditional

By CR
TNO
RACE
RU
With FED
MED

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>	<u>Significance of F</u>
Main Effects	93.337	3	31.112	4.789	0.003
TNO	7.102	1	7.102	1.093	0.296
RACE	83.502	1	83.502	12.853	0.000
RU	1.103	1	1.103	0.170	0.681
Covariates	3.415	2	1.707	0.263	0.769
FED	0.180	1	0.180	0.028	0.868
MED	3.091	1	3.091	0.476	0.491
2-Way Interactions	19.868	3	6.623	1.019	0.384
TNO RACE	3.207	1	3.207	0.494	0.483
TNO RU	0.005	1	0.005	0.001	0.978
RACE RU	15.684	1	15.684	2.414	0.121
3-Way Interactions	0.013	1	0.013	0.002	0.964
TNO RACE RU	0.013	1	0.013	0.002	0.964

Covariate	Raw Regression Coefficient
FED	0.013
MED	-0.063

Multiple Classification Analysis
Creativity
Traditional-Nontraditional

By CR
TNO
RACE
RU
With FED
MED

Grand Mean = 11.07

<u>Variable + Category</u>	<u>N</u>	<u>Unadjusted Deviation</u>	<u>Adjusted for Independents Deviation</u>	<u>Adjusted for Independents + Covariates Deviation</u>
TNO				
1 Traditional	169	0.17	0.15	0.16
2 Nontraditional	210	-0.14	-0.12	-0.13
RACE				
0 Black	150	0.59	0.60	0.59
1 White	229	-0.38	-0.39	-0.39
RU				
0 Rural	135	-0.08	0.07	0.06
1 Urban	244	0.04	-0.04	-0.03
Multiple R Squared			0.037	0.038
Multiple R			0.193	0.196

Analysis of Variance
Economic Return
Traditional-Nontraditional

By ER
TNO
RACE
RU
With FED
MED

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>	<u>Significance of F</u>
Main Effects	63.377	3	21.126	4.671	0.003
TNO	1.964	1	1.964	0.434	0.510
RACE	44.099	1	44.099	9.749	0.002
RU	6.869	1	6.869	1.519	0.219
Covariates	20.637	2	10.318	2.281	0.104
FED	16.498	1	16.498	3.647	0.057
MED	0.134	1	0.134	0.030	0.863
2-Way Interactions	2.247	3	0.749	0.166	0.92-
TNO RACE	1.781	1	1.781	0.394	0.531
TNO RU	0.006	1	0.006	0.001	0.972
RACE RU	0.503	1	0.503	0.111	0.739
3-Way Interactions	1.055	1	1.055	0.233	0.629
TNO RACE RU	1.055	1	1.055	0.233	0.629

Covariate	Raw Regression Coefficient
FED	-0.122
MED	0.013

Multiple Classification Analysis
Economic Return
Traditional-Nontraditional

By ER
TNO
RACE
RU
With FED
MED

Grand Mean = 13.15

<u>Variable + Category</u>	<u>N</u>	<u>Unadjusted Deviation</u>	<u>Adjusted for Independents Deviation</u>	<u>Adjusted for Independents + Covariates Deviation</u>
TNO				
1 Traditional	169	-0.06	-0.08	-0.06
2 Nontraditional	210	0.05	0.06	0.05
RACE				
0 Black	150	0.47	0.43	0.43
1 White	229	-0.31	-0.28	-0.26
RU				
0 Rural	135	-0.29	-0.19	-0.26
1 Urban	244	0.16	0.10	0.14
Multiple R Squared			0.036	0.048
Multiple R			0.190	0.219

Analysis of Variance
Esthetics
Traditional-Nontraditional

By ES
TNO
RACE
RU
With FED
MED

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>	<u>Significance of F</u>
Main Effects	63.663	3	21.221	2.594	0.052
TNO	0.535	1	0.535	0.065	0.789
RACE	43.657	1	43.657	5.337	0.021
RU	33.719	1	33.719	4.122	0.043
Covariates	7.398	2	3.699	0.452	0.637
FED	1.290	1	1.290	0.158	0.691
MED	7.302	1	7.302	0.893	0.345
2-Way Interactions	48.514	3	16.171	1.977	0.117
TNO RACE	1.531	1	1.531	0.187	0.666
TNO RU	1.578	1	1.578	0.193	0.661
RACE RU	43.488	1	43.488	5.317	0.022
3-Way Interactions	0.236	1	0.236	0.029	0.865
TNO RACE RU	0.236	1	0.236	0.029	0.865

Covariate	Raw Regression Coefficient
FED	0.034
MED	-0.097

Multiple Classification Analysis
 Esthetics
 Traditional-Nontraditional

By TNO
 RACE
 RU
 With FED
 MED

Grand Mean = 9.13

<u>Variable + Category</u>	<u>N</u>	<u>Unadjusted Deviation</u>	<u>Adjusted for Independents Deviation</u>	<u>Adjusted for Independents + Covariates Deviation</u>
TNO				
1 Traditional	189	0.04	0.04	0.05
2 Nontraditional	210	-0.03	-0.03	-0.04
RACE				
0 Black	150	0.35	0.43	0.42
1 White	229	-0.23	-0.28	-0.28
RU				
0 Rural	135	0.30	0.41	0.39
1 Urban	244	-0.17	-0.23	-0.22
Multiple R Squared			0.020	0.023
Multiple R			0.142	0.150

Analysis of Variance
Independence
Traditional-Nontraditional

By IN
TNO
RACE
RU
With FED
MED

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>	<u>Significance of F</u>
Main Effects	45.126	3	15.042	2.766	0.042
TNO	0.082	1	0.082	0.015	0.902
RACE	35.272	1	35.272	6.487	0.011
RU	2.869				
Covariates	3.621	2	1.810	0.333	0.717
FED	0.539	1	0.539	0.099	0.753
MED	1.255	1	1.255	0.231	0.631
2-Way Interactions	28.704	3	9.568	1.760	0.154
TNO RACE	0.225	1	0.225	0.041	0.839
TNO RU	0.057	1	0.057	0.010	0.919
RACE RU	28.524	1	28.524	5.246	0.023
3-Way Interactions	4.463	1	4.463	0.821	0.366
TNO RACE RU	4.463	1	4.463	0.821	0.366

Covariate	Raw Regression Coefficient
FED	0.022
MED	0.040

Multiple Classification Analysis
 Independence
 Traditional-Nontraditional

By IN
 TNO
 RACE
 RU
 With FED
 MED

Grand Mean = 11.53

<u>Variable + Category</u>	<u>N</u>	<u>Unadjusted Deviation</u>	<u>Adjusted for Independents Deviation</u>	<u>Adjusted for Independents + Covariates Deviation</u>
TNO				
1 Traditional	169	-0.00	-0.02	-0.03
2 Nontraditional	210	0.00	0.01	0.02
RACE				
0 Black	150	0.41	0.39	0.39
1 White	229	-0.27	-0.25	-0.26
RU				
0 Rural	135	-0.22	-0.12	-0.09
1 Urban	244	0.12	0.07	0.05
Multiple R Squared			0.022	0.023
Multiple R			0.147	0.153

Analysis of Variance
Intellectual Stimulation
Traditional-Nontraditional

By IS
TNO
RACE
RU
With FED
MED

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>	<u>Significance of F</u>
Main Effects	38.553	3	12.851	2.520	0.058
TNO	0.654	1	0.654	0.128	0.720
RACE	36.075	1	36.075	7.074	0.008
RU	0.041	1	0.041	0.008	0.929
Covariates	18.380	2	9.190	1.802	0.166
FED	10.705	1	10.705	2.099	0.148
MED	0.452	1	0.452	0.089	0.766
2-Way Interactions	18.143	3	6.048	1.186	0.315
TNO RACE	0.118	1	0.118	0.023	0.879
TNO RU	1.542	1	1.542	0.302	0.583
RACE RU	16.751	1	16.751	3.285	0.071
3-Way Interactions	1.003	1	1.003	0.197	0.658
TNO RACE RU	1.003	1	1.003	0.197	0.658

Covariate	Raw Regression Coefficient
FED	0.098
MED	0.024

Multiple Classification Analysis
 Intellectual Stimulation
 Traditional-Nontraditional

By IS
 TNO
 RACE
 RU
 With FED
 MED

Grand Mean = 10.99

<u>Variable + Category</u>	<u>N</u>	<u>Unadjusted Deviation</u>	<u>Adjusted for Independents Deviation</u>	<u>Adjusted for Independents + Covariates Deviation</u>
TNO				
1 Traditional	169	0.06	0.05	0.02
2 Nontraditional	210	-0.05	-0.04	-0.02
RACE				
0 Black	150	0.39	0.39	0.40
1 White	229	-0.25	-0.26	-0.26
RU				
0 Rural	135	-0.09	0.01	0.09
1 Urban	244	0.05	-0.01	-0.05
Multiple R Squared			0.020	0.029
Multiple R			0.140	0.171

Analysis of Variance
Management
Traditional-Nontraditional

By MA
TNO
RACE
RU
With FED
MED

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>	<u>Significance of F</u>
Main Effects	16.311	3	5.437	0.986	0.399
TNO	0.151	1	0.151	0.027	0.869
RACE	9.769	1	9.769	1.772	0.184
RU	10.089	1	10.089	1.830	0.177
Covariates	4.248	2	2.124	0.385	0.680
FED	1.249	1	1.249	0.227	0.634
MED	0.812	1	0.812	0.147	0.701
2-Way Interactions	54.272	3	18.091	3.282	0.021
TNO RACE	1.404	1	1.404	0.255	0.614
TNO RU	0.179	1	0.179	0.032	0.587
RACE RU	53.660	1	53.660	9.735	0.002
3-Way Interactions	0.032	1	0.032	0.006	0.939
TNO RACE RU	0.032	1	0.032	0.006	0.939

Covariate	Raw Regression Coefficient
FED	0.034
MED	0.032

Multiple Classification Analysis
 Management
 Traditional-Nontraditional

By MA
 TNO
 RACE
 RU
 With FED
 MED

Grand Mean = 9.69

<u>Variable + Category</u>	<u>N</u>	<u>Unadjusted Deviation</u>	<u>Adjusted for Independents Deviation</u>	<u>Adjusted for Independents + Covariates Deviation</u>
TNO				
1 Traditional	169	-0.02	-0.02	-0.03
2 Nontraditional	210	0.02	0.02	0.03
RACE				
0 Black	150	0.16	0.20	0.21
1 White	229	-0.10	-0.13	-0.14
RU				
0 Rural	135	0.18	0.23	0.26
1 Urban	244	-0.10	-0.12	-0.14
Multiple R Squared			0.008	0.010
Multiple R			0.088	0.099

Analysis of Variance
Prestige
Traditional-Nontraditional

By PR
TNO
RACE
RU
With FED
MED

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>	<u>Significance of F</u>
Main Effects	2.769	3	0.923	0.215	0.886
TNO	0.049	1	0.049	0.011	0.915
RACE	2.695	1	2.695	0.629	0.428
RU	0.327	1	0.327	0.076	0.782
Covariates	6.312	2	3.156	0.736	0.480
FED	0.568	1	0.568	0.132	0.716
MED	5.954	1	5.954	1.389	0.239
2-Way Interactions	27.339	3	9.113	2.126	0.097
TNO RACE	8.096	1	8.096	1.889	0.170
TNO RU	9.865	1	9.865	2.302	0.130
RACE RU	14.006	1	14.006	3.268	0.071
3-Way Interactions	2.967	1	2.967	0.692	0.406
TNO RACE RU	2.967	1	2.967	0.692	0.406

Covariate	Raw Regression Coefficient
FED	-0.023
MED	0.088

Multiple Classification Analysis
Prestige
Traditional-Nontraditional

By TNO
RACE
RU
With FED
MED

Grand Mean = 11.82

<u>Variable + Category</u>	<u>N</u>	<u>Unadjusted Deviation</u>	<u>Adjusted for Independents Deviation</u>	<u>Adjusted for Independents + Covariates Deviation</u>
TNO				
1 Traditional	169	-0.01	-0.01	-0.02
2 Nontraditional	210	0.01	0.01	0.01
RACE				
0 Black	160	0.10	0.11	0.12
1 White	229	0.06	-0.07	-0.08
RU				
0 Rural	135	0.01	0.04	0.06
1 Urban	244	-0.01	-0.02	-0.03
Multiple R Squared			0.002	0.006
Multiple R			0.041	0.075

Analysis of Variance
Security
Traditional-Nontraditional

By SE
TNO
RACE
RU
With FED
MED

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>	<u>Significance of F</u>
Main Effects	21.450	3	7.150	1.742	0.158
TNO	7.713	1	7.713	1.879	0.171
RACE	8.983	1	8.983	2.189	0.140
RU	2.625	1	2.625	0.640	0.424
Covariates	39.725	2	19.863	4.840	0.008
FED	39.233	1	39.233	9.560	0.192
MED	7.009	1	7.009	1.708	0.192
2-Way Interactions	4.256	3	1.419	0.346	0.792
TNO RACE	0.294	1	0.294	0.072	0.789
TNO RU	2.380	1	2.380	0.580	0.447
RACE RU	0.959	1	0.959	0.234	0.629
3-Way Interactions	0.009	1	0.009	0.002	0.962
TNO RACE RU	0.009	1	0.009	0.002	0.962

Covariate	Raw Regression Coefficient
FED	-0.188
MED	0.095

Multiple Classification Analysis
Security
Traditional-Nontraditional

By TNO
RACE
RU
With FED
MED

Grand Mean = 13.18

<u>Variable + Category</u>	<u>N</u>	<u>Unadjusted Deviation</u>	<u>Adjusted for Independents Deviation</u>	<u>Adjusted for Independents + Covariates Deviation</u>
TNO				
1 Traditional	189	-0.15	-0.16	-0.13
2 Nontraditional	210	0.12	0.13	0.11
RACE				
0 Black	150	0.21	0.20	0.19
1 White	229	-0.14	-0.13	-0.13
RU				
0 Rural	135	-0.16	-0.12	-0.20
1 Urban	244	0.09	0.06	0.11
Multiple R Squared			0.014	0.039
Multiple R			0.117	0.197

Analysis of Variance
Supervisory Relations
Traditional-Nontraditional

By SR
TNO
RACE
RU
With FED
MED

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>	<u>Significance of F</u>
Main Effects	21.673	3	7.224	1.388	0.246
TNO	0.272	1	0.272	0.052	0.819
RACE	14.892	1	14.892	2.862	0.092
RU	2.655	1	2.655	0.510	0.475
Covariates	29.840	2	14.920	2.868	0.058
FED	15.483	1	15.483	2.976	0.085
MED	1.440	1	1.440	0.277	0.599
2-Way Interactions	2.937	3	0.979	0.188	0.904
TNO RACE	0.004	1	0.004	0.001	0.978
TNO RU	1.708	1	1.708	0.328	0.567
RACE RU	1.073	1	1.073	0.206	0.650
3-Way Interactions	2.106	1	2.106	0.405	0.525
TNO RACE RU	2.106	1	2.106	0.405	0.525

Covariate	Raw Regression Coefficient
FED	-0.118
MED	-0.043

Multiple Classification Analysis
 Supervisory Relations
 Traditional-Nontraditional

By SR
 TNO
 RACE
 RU
 With FED
 MED

Grand Mean = 12.92

<u>Variable + Category</u>	<u>N</u>	<u>Unadjusted Deviation</u>	<u>Adjusted for Independents Deviation</u>	<u>Adjusted for Independents + Covariates Deviation</u>
TNO				
1 Traditional	169	-0.02	-0.03	-0.00
2 Nontraditional	210	0.02	0.02	0.00
RACE				
0 Black	150	0.28	0.25	0.24
1 White	229	-0.18	-0.16	-0.16
RU				
0 Rural	135	-0.18	-0.12	-0.21
1 Urban	244	0.10	0.16	0.12
Multiple R Squared			0.011	0.026
Multiple R			0.105	0.161

Analysis of Variance
Surroundings
Traditional-Nontraditional

By SU
TNO
RACE
RU
With FED
MED

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>	<u>Significance of F</u>
Main Effects	10.930	3	3.643	0.0880	0.451
TNO	8.012	1	8.012	1.935	0.165
RACE	2.772	1	2.772	0.670	0.414
RU	0.103	1	0.103	0.025	0.875
Covariates	14.051	2	7.025	1.697	0.185
FED	11.746	1	11.746	2.837	0.093
MED	9.456	1	9.456	2.284	0.132
2-Way Interactions	4.728	3	1.576	0.381	0.767
TNO RACE	2.344	1	2.344	0.566	0.452
TNO RU	1.298	1	1.298	0.313	0.576
RACE RU	0.003	1	0.003	0.001	0.980
3-Way Interactions	2.238	1	2.238	0.541	0.463
TNO RACE RU	2.238	1	2.238	0.541	0.463

Covariate	Raw Regression Coefficient
FED	-0.103
MED	0.111

Multiple Classification Analysis
 Surroundings
 Traditional-Nontraditional

By SU
 TNO
 RACE
 RU
 With FED
 MED

Grand Mean = 12.94

<u>Variable + Category</u>	<u>N</u>	<u>Unadjusted Deviation</u>	<u>Adjusted for Independents Deviation</u>	<u>Adjusted for Independents + Covariates Deviation</u>
TNO				
1 Traditional	169	-0.16	-0.16	-0.15
2 Nontraditional	210	0.13	0.13	0.12
RACE				
0 Black	150	0.11	0.11	0.11
1 White	229	-0.07	-0.07	-0.08
RU				
0 Rural	135	-0.04	-0.02	-0.04
1 Urban	244	0.02	0.01	0.02
Multiple R Squared			0.007	0.016
Multiple R			0.084	0.127

Analysis of Variance
Variety
Traditional-Nontraditional

By VA
TNO
RACE
RU
With FED
MED

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>	<u>Significance of F</u>
Main Effects	49.237	3	16.412	2.783	0.041
TNO	0.068	1	0.068	0.012	0.914
RACE	43.138	1	43.138	7.315	0.007
RU	0.713	1	0.713	0.121	0.728
Covariates	2.129	2	1.064	0.181	0.835
FED	0.306	1	0.306	0.052	0.820
MED	2.077	1	2.077	0.352	0.553
2-Way Interactions	20.467	3	6.822	1.157	0.326
TNO RACE	0.008	1	0.008	0.001	0.970
TNO RU	7.297	1	7.297	1.237	0.267
RACE RU	12.679	1	12.679	2.150	0.143
3-Way Interactions	0.408	1	0.408	0.069	0.793
TNO RACE RU	0.408	1	0.408	0.069	0.793

Covariate	Raw Regression Coefficient
FED	-0.017
MED	0.052

Multiple Classification Analysis
Variety
Traditional-Nontraditional

By VA
TNO
RACE
RU
With FED
MED

Grand Mean = 11.54

<u>Variable + Category</u>	<u>N</u>	<u>Unadjusted Deviation</u>	<u>Adjusted for Independents Deviation</u>	<u>Adjusted for Independents + Covariates Deviation</u>
TNO				
1 Traditional	169	0.05	0.01	0.01
2 Nontraditional	210	-0.02	-0.01	-0.01
RACE				
0 Black	150	0.44	0.43	0.43
1 White	229	-0.29	-0.28	-0.28
RU				
0 Rural	135	-0.17	-0.06	-0.05
1 Urban	244	0.09	0.03	0.03
Multiple R Squared			0.022	0.023
Multiple R			0.148	0.151

Analysis of Variance
Way of Life
Traditional-Nontraditional

By WL
TNO
RACE
RU
With FED
MED

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>	<u>Significance of F</u>
Main Effects	13.695	3	4.565	1.506	0.213
TNO	0.109	1	0.109	0.036	0.850
RACE	0.120	1	0.120	0.040	0.842
RU	12.095	1	12.095	3.990	0.046
Covariates	9.947	2	4.974	1.641	0.195
FED	3.426	1	3.426	1.130	0.288
MED	9.880	1	9.880	3.260	0.072
2-Way Interactions	10.996	3	3.665	1.209	0.306
TNO RACE	2.755	1	2.755	0.909	0.341
TNO RU	0.101	1	0.101	0.033	0.855
RACE RU	7.684	1	7.684	2.535	0.112
3-Way Interactions	0.111	1	0.111	0.037	0.849
TNO RACE RU	0.111	1	0.111	0.037	0.849

Covariate	Raw Regression Coefficient
FED	-0.056
MED	0.113

Multiple Classification Analysis
Way of Life
Traditional-Nontraditional

By WL
TNO
RACE
RU
With FED
MED

Grand Mean = 13.83

<u>Variable + Category</u>	<u>N</u>	<u>Unadjusted Deviation</u>	<u>Adjusted for Independents Deviation</u>	<u>Adjusted for Independents + Covariates Deviation</u>
TNO				
1 Traditional	169	0.03	0.02	0.02
2 Nontraditional	210	-0.02	-0.02	-0.01
RACE				
0 Black	150	0.08	0.02	0.03
1 White	229	-0.05	-0.01	-0.02
RU				
0 Rural	135	-0.25	-0.25	-0.24
1 Urban	244	0.14	0.14	0.13
Multiple R Squared			0.012	0.021
Multiple R			0.109	0.143

Appendix G

Spearman's (Rho) Rank Order Correlation Analysis of Work Values Inventory
Means for Tenth Grade Female Adolescents, 1968 and 1979

Work Value Scale	1968 Means	Rank Order	1979 Means	Rank Order	d	d ²
Way of Life	13.29	1	13.83	1	1	0
Achievement	12.81	3	13.29	2	-1	1
Security	12.65	4	13.18	3	-1	1
Economic Returns	12.22	6	13.15	4	-2	4
Surroundings	11.98	7	12.94	5	-2	4
Supervisory Relations	12.49	5	12.92	6	1	1
Altruism	12.96	2	12.71	7	5	25
Prestige	11.03	11	11.82	8	-3	9
Variety	10.49	13	11.54	9	-4	16
Independence	10.99	12	11.53	10	-2	4
Associates	11.24	9	11.38	11	2	4
Creativity	11.08	10	11.07	12	2	4
Intellectual Stimulation	11.35	8	10.99	13	5	25
Management	9.10	15	9.69	14	-1	1
Esthetics	9.11	14	9.13	15	1	1
						100

$$\begin{aligned}
 e &= 1 - \frac{6 \sum d^2}{n(n^2-1)} = 1 - \frac{6(100)}{15 [(15)^2 - 1]} = 1 - \frac{600}{15(224)} = 1 - \frac{600}{3360} \\
 &= 1 - .18 \\
 &= .82
 \end{aligned}$$

Spearman's (Rho) Rank Order Correlation Analysis of Work Values Inventory
Means for Tenth Grade Female Adolescents by Traditional
and Nontraditional Family Employment Patterns

Work Value Scale	Traditional Rank Means	Traditional Rank Order	Nontraditional Rank Means	Nontraditional Rank Order	d	d ²
Way of Life	13.85	1	13.78	1	0	0
Achievement	13.42	2	13.17	4	-2	4
Economic Returns	13.07	3	13.18	3	0	0
Security	13.02	4	13.28	2	2	4
Supervisory Relations	12.89	5	12.93	6	-1	1
Altruism	12.79	6	12.63	7	-1	1
Surroundings	12.77	7	13.07	5	2	4
Prestige	11.81	8	11.80	8	0	0
Variety	11.56	9	11.48	10	-1	1
Independence	11.53	10	11.51	9	1	1
Associates	11.35	11	11.43	11	0	0
Creativity	11.24	12	10.92	13	-1	1
Intellectual Stimulation	11.05	13	10.93	12	1	1
Management	9.67	14	9.68	14	0	0
Esthetics	9.19	15	9.11	15	0	0
						18

$$\begin{aligned}
 e &= 1 - \frac{6 \sum d^2}{n(n^2-1)} = 1 - \frac{6(18)}{15 [(15)^2 - 1]} = \frac{108}{3360} \\
 &= 1 - .03 \\
 &= .97
 \end{aligned}$$

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WORK VALUES OF FEMALE ADOLESCENTS

by

Carolyn L. Maddy

(ABSTRACT)

The purpose of this study was to investigate the work values of female adolescents from traditional and nontraditional career families. This was accomplished by administering the Work Values Inventory (WVI) and a personal data form to 528 tenth grade females in six secondary schools in Virginia. The schools represented an approximately equal proportion of black and white females and rural and urban geographic locations.

Useable data was collected from 527 females. The services of the Virginia Polytechnic Institute and State University were used to analyze the data, construct rank-order profiles of the subjects' scores, and test for significance among the variables.

The following conclusions were drawn: (1) The work values of female adolescents from traditional and nontraditional career families are similar. In addition, parental educational level and geographic location of the female adolescents from traditional and nontraditional career families appear to be of little consequence in their assessed

work values; (2) Black female adolescents scored higher than white females on eleven of the fifteen work values scales and black females placed more importance on intrinsic work values than on the extrinsic values; and (3) The overall responses of the female adolescents reflected higher mean scores than Super (1970) noted in 1968 for a similar group. The Altruism value now ranked seventh as compared to second in 1968. In addition, Achievement, Security, and Economic Returns showed higher rankings than in the 1968 study.

Some implications concluded from this study may be of interest to career development researchers, theorists, and career counselors. First, it is apparent that the female adolescents have similar work values, regardless of the mothers' and fathers' employment status, perhaps dispelling some sex role myths that females from nontraditional career families model their mothers, thus establishing different work values than females from traditional career homes.

Secondly, the differences detected in work values of black and white female adolescents should serve as a basis for future research concerning the influences of the family on work values as a function of race.

Finally, the assumption that daughters use their mothers as role models is questionable in reference to work values. In addition, female adolescents are now interested in the nontraditional stereotyped work values of Security, Achievement, and Economic Returns.