

SOCIAL-PSYCHOLOGICAL FACTORS RELATED TO
RURAL OKLAHOMA WOMEN'S WORK ROLES

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CHAPTER I

INTRODUCTION

Changing Patterns of Labor Force Participation

The increase in labor force participation of women over the past 40 years is a phenomenon which has encompassed both rural and urban women. The movement of married women into the labor force began with mothers of school age children, and in the past ten years, has come to include mothers of preschool children (Hayghe, 1982). For women with young children, much of the movement into the labor force has been into part-time or part-year work (Masnick & Bane, 1980). Projections for the female labor force predict that by 1995, 60.3% of all women will be in the labor force, as compared to 76.1% of all men (Fullerton & Tschetter, 1983). Regardless of their degree of participation, the entry of many women into the labor force is bound to have great effects on patterns of family resource allocation and use.

Studies of individual women's labor force decisions serve to increase understanding of how individuals and families organize their scarce resources and make critical decisions regarding investments in human capital and material resources which, in turn, affect the level of living they can attain. Research into patterns of family resource development, allocation, and use has repeatedly been identified as one of the goals for research in home economics (Schlater, 1970), and,

specifically, in family economics (Ritchey, 1978). Increasing knowledge about resource decisions affecting the family's future received high priority as a new initiative for home economics in the national plan formulated in 1981 (U.S. Department of Agriculture, 1981).

A number of structural factors, including both economics and demographic changes, have influenced the rise in women's labor force participation since World War II. Rising women's wages, increasing education levels, declines in desired family size, and rising divorce rates have all increased the costs associated with choosing a full-time homemaker role which does not include paid employment (Mason, Czajka, & Arber, 1976). In addition, inflation has consistently decreased families' real incomes, making the additional income from wife's earnings more important. In 1977, wives contributed 20 to 30% of the family income to husband-wife families with an employed wife (Masnick & Bane, 1980). While this may appear to be a small proportion of family income, several studies have documented the role of the wife's income in raising the family's level of living above the poverty line, to a higher social class, or simply to a level higher than that of comparable one-earner families (Hafstrom & Dunsing, 1965; Masnick & Bane, 1980; Oppenheimer, 1977).

Changes in Sex Role Attitudes

During the period when the structural factors mentioned earlier had been fostering women's rising rates of labor force participation, there had been concomitant changes in societal views about the propriety of women's employment. In the aggregate, sex role attitudes can be viewed as norms regarding ...

beliefs about what kind of behavior is appropriate and desired, the areas of life where satisfaction is to be sought, goals to be attained, and the consequences of certain behavior (Thornton, Alwin, & Camburn, 1983, p. 220).

In the United States, there has been a shift in sex role attitudes toward greater approval of married women working outside the home with the most dramatic changes occurring in the 1960s and early 1970s (Mason, Czajka, & Arber, 1976; Thornton & Freedman, 1979). This trend toward acceptance of a more egalitarian work role for women has continued into the 1980s (Thornton, Alwin & Camburn, 1983; Cherlin & Walters, 1981).

Several studies of sex role attitudes have shown that attitudes supporting equal opportunities for men and women in the workplace are more widely approved than attitudes concerning the appropriateness of mothers of young children working outside the home (Ferree, 1980; Mason & Bumpass, 1975; Mason, Czajka, & Arber, 1976; Thornton & Camburn, 1979; Waite, 1978). These studies also find that while attitudes toward women's employment have changed considerably, attitudes supporting the traditional division of labor within the household remain quite strong.

However, longitudinal studies of changes in sex role attitudes for individual women have found that there is no simple causal relationship between sex role attitudes and labor force attachment. Sex role attitudes and labor force participation are intertwined--experience in the labor force leads to more egalitarian sex role attitudes, but more egalitarian sex role attitudes lead to greater attachment to the labor force (Ferber, 1982; Spitze & Waite, 1980; Thornton, Alwin & Camburn, 1983; Thornton & Freedman, 1979).

Models of Labor Force Participation

Studies using aggregate data have documented a shift in overall sex role attitudes toward greater acceptance of employment roles for women, but individual tastes and preferences of both husband and wife still affect choices made by families concerning allocation of the wife's time to market work. At the microeconomic level, an individual woman's labor force status can be modeled as a function of her stock of human capital, marital and family characteristics, demographic characteristics such as race and age, and status attainment variables (Dowdall, 1974; Smith-Lovin & Tickamyer, 1978; Spitze & Wiate, 1980). With varying degrees of success, these models reveal relationships that can add to the understanding of differences in family values and goals which lead to differing decisions about timing and extent of wife's labor force participation. Measures of sex role attitudes generally add significantly to the explanatory power of models of labor force participation by including measures of tastes and preferences which are often ignored by economists (Dowdall, 1974; Hanson, 1983; Shapiro & Shaw, 1983; Morgan & Hock, 1984). Models incorporating sociodemographic and economic characteristics of women can generally explain only 20 to 30% of the observed variation in labor force participation. Further refinement of these models is needed.

Interrelationship of Attitudes and Needs

Findings on the relative importance of sex role attitudes in relation to a woman's labor force participation have varied, and there is some evidence that the effect of sex role attitudes on labor force

participation may be mediated by the type of needs met by employment. Studies that have added measures of work attachment (Huber & Spitze, 1981) or work commitment (Bielby & Bielby, 1984) to purely economic labor force models have greatly increased the power of their predictions of individual women's choices to be or not be employed. Dowdall (1974) has found that labor force participation of married women had little relationship to sex role attitudes for wives who were working for economic reasons, but that differences in sex role attitudes were of much greater importance in predicting labor force participation for those women with high income husbands. Sex role attitudes may have less importance for women working for economic reasons. Previous studies with samples drawn from middle class, highly educated women who do not need to work to support their families may have led to misconceptions about the relationship between sex role attitudes and labor force participation. The few studies that have asked women about their motivation for working outside the home support the importance of noneconomic returns to employment such as increased self-worth, but the relationship between sex role attitudes and perceived needs has not been thoroughly investigated (Ferree, 1980; Hafstrom & Dunsing, 1965; Lopata & Norr, 1980; Walshok, 1978).

In addition, while several scales assessing sex role attitudes have been devised and tested, no uniform method of assessing the needs of women in relation to employment has been tested. Previous studies have either asked open-ended questions about why women are employed or used a characteristic such as low husband's income as a proxy for economic need. In Maslow's hierarchy of needs, psychological needs for belonging, esteem, and self-worth only become important after physiological

needs for food and shelter are met (Goble, 1970). If these needs are hierarchical in nature, a measure of women's perceived needs could be devised to relate these needs to sex role attitudes and labor force participation. More work is needed to document the needs met by employment for women, and the relationship of needs to sex role attitudes and other demographic variables.

Need for Studies of Rural Women

Changes in labor force participation of women and changes in sex role attitudes have extended to both rural and urban women. In 1979, 44% of farm women and 48% of rural nonfarm women were employed outside the home, an increase of 100% over the last 20 years (U.S. Department of Labor, 1980). Most studies of women's labor force involvement or of sex role attitudes have used data from urban or national probability samples which contain too few rural women for separate analysis. Yet, the few studies that compare rural and urban samples have found that determinants of labor force participation differ for rural and urban women (Hanson, 1982; Heaton & Martin, 1979; Maret & Chenoweth, 1979).

There is a need for more information on rural women's labor force involvement. There has been an increase in the nonfarm rural population in the last decade, with the proportion of farm families declining, and more farm families turning to off-farm work for support (Bokemeier, Sachs, & Keith, 1983). While rural areas have been increasing in population and urban areas declining, rural areas differ from urban areas in having lower wage levels, more peripheral and secondary industries, lower education levels, and a higher proportion of self-employed workers (Tweeten, 1978). These differences in economic characteristics between

rural and urban areas diminish the applicability to rural women of findings based on studies of urban samples. Studies of rural women could provide valuable information for rural development programs and for planners estimating female labor supply in rural areas.

In addition to facing differing economic conditions, rural women, when compared with urban women, have different options for combining employment, household production, unpaid farm work, or unpaid work in a family business (Bokemeier, Sachs, & Keith, 1983). Most unpaid roles are part-time and there is some evidence that part-time workers have differing characteristics than full-time workers (Ferree, 1980; Morgenstern & Hamovitch, 1976; Rodgon & Gralewski, 1979). Furthermore, Nickols and Fox (1983) have found that women who work at home, e.g., as child care providers, differ from homemakers and employed workers. No in-depth studies exist of rural women's sex role attitudes in relation to their work role options. Generalizations about sex role attitudes and labor force participation based on studies of urban women may not hold true for rural women who live in areas of more traditional values, fewer employment opportunities, and lower educational levels.

Changes in women's labor force participation rates and sex role attitudes are important because they have changed the resource allocation patterns of a large proportion of families in the United States. While past studies document that sex role attitudes are related to a wife's participation in the labor force, more research is needed to explore the relationship among sex role attitudes, perceived needs related to employment, and women's work roles. Research is particularly needed on rural women's sex role attitudes and perceived needs because

they face differing economic conditions and possibilities for resource allocation than urban women.

Purpose and Objectives

The purpose of this study is to examine the relationship between social-psychological dimensions and choices among role alternatives of rural Oklahoma women. The study has relevance for increased knowledge of the factors related to women's labor force participation and, specifically, as those factors apply to the unique characteristics or situations of rural women.

Objectives

Objectives of the study are:

1) to explore the components of sex role attitudes in a sample of rural Oklahoma women and to compare the sex role attitudes of women in differing work roles.

2) to explore the relative importance and possible hierarchical relationships of needs levels (physical, security, belonging, esteem, and self-actualization needs) for rural Oklahoma women and to compare needs levels of women in differing work roles.

3) to explore the relationship between the sex role attitudes factors and the perceived needs factors identified in Objectives 1 and 2 for rural Oklahoma women.

4) to examine the relationship between social-psychological characteristics (sex role attitudes and perceived needs) and work role alternatives of rural Oklahoma women while controlling for the effects of

sociodemographic characteristics that are known to be related to labor force participation.

5) to make recommendations for future research based on the findings of the study.

Definitions

1) Social-psychological dimensions are aspects of individuals' perceptions of their lives. Two components are examined: Sex role attitudes are . . .

beliefs about what kind of behavior is appropriate for men and women . . ., areas of life where satisfaction is to be sought, and the consequences of certain behavior (Thornton, Alwin, & Camburn, 1983, p. 220).

Perceived needs are the five basic needs proposed by Maslow (1954) . . .

as essential to optimal human existence. He arranged these needs in a hierarchy, from low to high. Lower order needs included physiological and safety needs followed by social needs; higher order needs included esteem and self-actualization (Betz, 1982, p. 55).

2) Roles have been defined as "a more or less homogeneous set of behaviors normatively prescribed and proscribed, expected of those who occupy a given status" (Nye & Gecas, 1976, pp. 12-13). This study focuses on dimensions of rural women's work and family roles. The three role alternatives defined in this study include: 1) a full-time homemaker role with no employment or unpaid work responsibilities outside the home, 2) an unpaid helper role in a family farm or business, and 3) the role of a paid employee or in self-employment. Unpaid helpers are differentiated from the self-employed or paid employees because they do not receive income from their work and because they may

be able to blend their unpaid work with homemaking responsibilities with greater ease than those who work for pay.

Research Questions

Research questions associated with the objectives of the study are:

1) What are the components of rural Oklahoma women's sex role attitudes? What is the relationship between sex role attitudes and work roles?

2) What is the nature of rural Oklahoma women's perceived needs in relation to employment? What is the relationship between perceived needs and work roles?

3) What is the relationship between sex role attitudes and perceived needs in relation to employment for rural Oklahoma women?

4) What is the relationship between a woman's current role alternative and sex role attitudes, perceived needs, husband's attitude toward wife's employment, and sociodemographic characteristics (e.g., education, household income, marital status, number and ages of children)?

Summary

This chapter has documented the importance for families of recent changes in women's labor force participation. The relationships among sex role attitudes, perceived needs, and women's labor force participation have not been thoroughly investigated; therefore, further research is needed. Rural women's labor force participation has been rising in recent years, but few studies have specifically addressed the needs of rural women who may differ in attitudes, economic needs, and other characteristics from urban women. The purpose of this thesis is to

explore the relationships among sex role attitudes, perceived needs, and work roles of rural Oklahoma women. Chapter II presents an in-depth review of the existing literature related to women's labor force participation, sex role attitudes, and perceived needs.

CHAPTER II

REVIEW OF LITERATURE

Labor Force Participation of Women

Macroeconomic Trends

The rise in women's labor force participation rates over the last 50 years is a phenomenon that has been fostered by and has contributed to innumerable changes in the economic and social fabric of United States society. Currently, the labor force participation rate is 54.5% for all women in the United States (U.S. Department of Labor, 1985) and it is projected to increase slowly to about 60% by 1995 (Fullerton & Tschetter, 1983). Demographic trends contributing to increased labor force participation of women include a rise in the age of first marriage, an increased divorce rate, a decrease in average family size, and an increase in the number of married women delaying childbearing or remaining childless (Rexroat & Shehan, 1984). Economic trends contributing to women's labor force participation include the rapid expansion of jobs in service industries and other traditional women's occupations, the pinch of inflation and rising energy costs on family budgets, and increased education of women (Oppenheimer, 1973).

These demographic and economic trends have been most pronounced in metropolitan areas, but have extended to nonmetropolitan areas as well. Labor force participation of women has historically been lower in

nonmetropolitan areas due to scarcity of jobs for women and more traditional sex role attitudes in rural areas. However, these differences narrowed from 1960 to 1970 when women accounted for 89% of the growth of the labor force in nonmetropolitan counties and 58% of labor force growth in urban areas (Brown & O'Leary, 1979). This labor force growth was fostered by increased educational levels of rural women as well as a rapid expansion in rural areas of manufacturing and service industries which employ more women and a corresponding decline in the extractive industries of farming, forestry, and mining which employ more men.

Rural women differ from urban women in having less education, and being more likely to work in low wage operative or service industry jobs (Brown & O'Leary, 1979). In addition, rural women who live on farms have the option of choosing unpaid farm work instead of off-farm employment and this may make their decisions about labor force participation more complex than those of nonfarm rural women (Bokemeier, Sachs, & Keith, 1983; Buttel & Gillespie, 1984). Both changing demographic characteristics of the population and broad economic trends have contributed to increased labor force participation rates and stronger labor force attachment of women in rural and urban areas.

Microeconomic Models

The broad implications for society and families of changes in women's labor force participation have led many researchers to investigate economic and social characteristics affecting an individual woman's decision to be or not to be employed. These studies generally use regression analysis or related statistical techniques to predict labor force status from varying combinations of a woman's sociodemographic,

human capital, and economic characteristics. Although differing variables have been measured and the strength of relationships varies among studies, there are a number of variables which consistently have been related to a woman's labor force participation.

Education is one of the most consistent predictors of labor force participation, with more educated women much more likely to be employed (Ferber, 1982; Geerken & Gove, 1983; Lopata & Norr, 1980; Maret & Chenoweth, 1979; Rexroat & Shehan, 1984; Scanzoni, 1979; Shapiro & Shaw, 1983). Education represents an investment in human capital which should yield higher wages on the job. Ferber (1982) has argued that increased education also increases the value of work in the home and the value of investment in quality of children, thus increasing the opportunity costs of employment. However, it can also be argued that those women who get more education do so because they are planning to be employed. In a study comparing future work plans with actual roles, Rexroat and Shehan (1984) found that educational level was important in predicting labor force participation only for those women who had planned to be full-time housewives. For these women, more education increased their chances of being employed. In relating labor force commitment to education and attitudes, Scanzoni (1979) has suggested that education, particularly college education, leads married women to value extrinsic rewards associated with employment more highly than familistic rewards from child rearing and home management.

Age, race, and work experience have also been related to labor force participation. Black women historically have had a higher labor force participation rate than white women, although the difference has been narrowing in recent years (Cain, 1966; Hayghe, 1982; Macke, Hudis &

Larrick, 1978). Hispanic women have labor force participation rates lower than those of either white or black women. In 1981, the labor force participation rate for women 16 years and older was 53.2% for black women, 51.8% for white women, and 47.5% for Hispanic women (U.S. Department of Labor, 1983). However, a recent comparison of young Hispanic and white non-Hispanic women has concluded that differences in labor force participation rates are mainly due to differences in education between the Hispanic and non-Hispanic women (Ortiz & Cooney, 1984).

Age tends to be negatively related to labor force participation with highest rates for those aged 24 to 55 who have completed schooling and lowest rates for those over 55 (Fullerton & Tschetter, 1983). The effects of age tend to interact with presence and age of children for married women in affecting labor force participation.

Studies including measures of work experience conclude that previous labor force experience increases a woman's likelihood of being currently employed (Rexroat & Shehan, 1984; Smith-Lovin & Tickamyer, 1978). Huber and Spitze (1981) have found that a measure of work attachment strongly predicts current labor force status for a group of married women while negating the effects of race, education, and husband's income. They argue that their findings imply that employment is self-perpetuating.

The traditional marriage provides many women with the choice of making employment an option rather than a necessity; therefore, it is not surprising that a number of marital and family characteristics have been related to labor force participation. Single women, whether separated, divorced, or never married, are much more likely to be employed

than married women (Lopata & Norr, 1980; Maret & Chenoweth, 1979; Rexroat and Shehan, 1984).

The presence of a preschool child sharply decreases labor force participation (Ferber, 1982; Geerken & Gove, 1983; Lopata & Norr, 1980; Molm, 1978; Rexroat & Shehan, 1984; Shapiro & Shaw, 1983). While age of the youngest child had been negatively related to labor force participation in the 1970s (Dowdall, 1974; Molm, 1978; Huber & Spitze, 1981), there are some indications this may be changing. Shapiro and Shaw (1983), comparing two female panels of the National Longitudinal Surveys, found that the differences in labor force participation between childless women and those with school-age children disappeared when the 1978 group was compared to the 1968 group although the effect of very young children still remained.

While marital status and presence of a preschool child are consistent predictors of labor force status, results are less equivocal for number of children and timing of family events. Fertility and labor force participation have a reciprocal effect on each other which is best investigated in longitudinal studies (Ferber, 1982). Some studies have found a negative effect of number of children on labor force participation (Scanzoni, 1979; Smith-Lovin & Tickamyer, 1978), while others do not find an effect (Geerken & Gove, 1983). Timing of life course events also can affect labor force participation. Early age at first marriage and early childbearing both decrease future labor force participation (Scanzoni, 1979; Smith-Lovin & Tickamyer, 1978). However, Waite (1980) has found that marriage and childbearing at a later age decreases labor force participation and Hanson (1983) has found that total fertility is not as important as timing of marriage and births.

Husband's characteristics also have been related to labor force participation of married women. Husband's income reflects economic well-being of the family and has been related consistently to wife's labor force participation. Wives with low-income husbands are more likely to be employed than wives with high-income husbands (Dowdall, 1974; Gordon & Kammeyer, 1980; Geerken & Gove, 1983; Lopata & Norr, 1980; Molm, 1978; Rexroat & Shehan, 1984; Shapiro & Shaw, 1983; Smith-Lovin & Tickamyer, 1978). Husband's attitude toward a wife's employment also has been related to labor force participation, with those whose husbands disapprove less likely to be in the labor force (Arnott, 1972; Lopata & Norr, 1980; Rexroat & Shehan, 1984). Macke, Hudis, and Larrick (1978) have found that husband's attitude toward his wife's employment has a much stronger effect on her employment than her own sex role attitudes. However, Spitze and Waite (1981) have found that a wife's preference for employment, her sex role attitudes, and her actual employment all have an effect on husband's attitudes. Perceived husband's attitude still has a strong effect on her employment, and this is especially true for white women.

The relationship between a woman's sex role attitudes and labor force participation is not a simple one. Longitudinal studies have shown that nontraditional sex role attitudes are related to labor force participation, but labor force experience also leads to more egalitarian sex role attitudes (Macke, Hudis, & Larrick, 1978; Thornton, Alwin & Camburn, 1983). Studies have found that attitudes toward a woman's home responsibilities are more closely related to labor force participation than attitudes toward equal rights for women (Geerken & Gove, 1982; Thornton & Camburn, 1979). While a number of cross-sectional studies

have related more liberal sex role attitudes to labor force participation or labor force attachment (Gordon & Kammeyer, 1980; Maret & Chenoweth, 1979; Rexroat & Shehan, 1984; Shapiro & Shaw, 1983), others have found little influence of attitudes on extent or nature of employment (Cain, 1966; Molm, 1978; Smith-Lovin & Tickamyer, 1978; Spitze & Waite, 1980). While sex role attitudes appear to have only modest effects on labor force participation, Macke, Hudis, and Larrick (1978) have suggested that the reciprocal effects of attitudes on employment and employment on attitudes may interact to produce a spiralling effect of reinforcement of labor force participation for those women who enter the labor force early with nontraditional sex role attitudes.

Relationships between education, marital status, age of children, husband's income, husband's attitude, and women's sex role attitudes and labor force participation apply to rural as well as urban women, although there are fewer studies of rural samples (Chenoweth & Maret-Havens, 1978; Hanson, 1982, 1983; Maret & Chenoweth, 1979). Due to lower wage levels and more limited job opportunities in rural areas, the benefits of employment are often less for rural compared to urban women (Chenoweth & Maret-Havens, 1978; Heaton & Martin, 1979). Maret and Chenoweth (1979) have found differences between women living in rural areas within a Standard Metropolitan Statistical Area (SMSA) and outside a SMSA. Those living outside a SMSA are more likely to have no, sporadic, or casual attachment to the labor force than those living within a SMSA. There is some evidence that human capital variables such as education and work experience have less influence on rural women than family and marital characteristics (Hanson, 1982, 1983), although Maret and Chenoweth (1979) have found that formal education is more important in

relation to labor force participation for rural women living outside a SMSA than for rural women living within a SMSA. These differences in the importance of human capital, sociodemographic, and attitudinal variables for rural women as compared to urban women accentuate the need for further examination of factors affecting labor force decisions of rural women.

Sex Role Attitudes

Sex role attitudes can be viewed as normative beliefs about appropriate roles for men and women, or as learned behavioral and attitudinal outlooks which affect character and personality which then affect behavior (Scanzoni, 1975). Most studies examining sex role attitudes and labor force participation use measures of sex role attitudes which assess the normative aspects of appropriate employment and home roles for men and women. In general, scales reflect a range of attitudes from egalitarian to traditional. The most egalitarian attitudes view women's employment outside the home as a right with concomitant expectations of equal sharing of household tasks by husbands. At the opposite end of the scale, the most traditional attitudes view home responsibilities as primarily belonging to women and women's employment as an option to be exercised only under certain conditions (e.g., economic need, no young children, husband's approval) (Scanzoni, 1978).

Components of Sex Role Attitudes

There is no widely accepted, standardized set of scales that uniformly measures sex role attitudes. Measures vary from one or two questions to scales of 20 or more items addressing several dimensions

of sex role attitudes. Waite (1978) has suggested that, when investigating attitudes toward women's employment, researchers should ask 1) whether women should work and under what conditions, and 2) what are the effects of employment of married women on their families. Results from several studies using different measures of sex role attitudes tend to break these attitudes into two components: 1) attitudes about women's rights to work in general (including equal pay and job opportunities), and 2) attitudes concerning the effects of women's employment on children and home responsibilities. Scanzoni (1978) discusses the concept of a continuum from complete role segregation of men and women (most traditional) to complete interchangeability of household and employment roles (egalitarian). However, there is some evidence that attitudes toward roles have several components and that attitudes about women's rights to equality in the workplace are more widely accepted than equal sharing of household responsibilities or views on the possible detrimental effects of mother's employment on children (Mason, Czajka, & Arber, 1976; Thornton & Freedman, 1979).

Two independent analyses of an 18-item scale from the 1970 National Fertility Study have produced two main components of attitudes. One component deals with conflicts between work and the maternal role and the division of labor within the home (home commitment); the second component deals with equal labor market rights for women (Mason & Bumpass, 1975; Thornton & Camburn, 1979). Thornton & Camburn (1979) have derived two additional factors concerning women's inability to plan for the future and opposition to special privileges for working mothers, but home commitment is the only factor which strongly relates to labor force participation measures. Using a similar scale with additional

items, Huber and Spitze (1981) also have found that attitudes about effects on the family of a wife working are related more closely to wife's employment than attitudes about the equal rights amendment and abortion.

A recent study of families' allocation of labor resources uses two components of sex role ideology: 1) traditional support of woman's place in the home, and 2) woman's independence, including job equality and a woman's right to work (Geerken & Gove, 1983). This study also has found that attitudes about woman's place in the home are strongly related to wife's labor force participation while the woman's independence factor has no effect on labor force participation. While studies of rural women's sex role attitudes are few, Stokes and Willits (cited in Flora & Johnson, 1978) report finding a bifactor sex role attitude comprised of 1) woman's home responsibility, and 2) equal pay for equal work in a sample of rural-origin females.

Changes in Sex Role Attitudes

The interpretation of findings regarding sex role attitudes and labor force participation are complicated by the fact that patterns of labor force participation as well as sex role attitudes have been changing over the last 40 years. Mason, Czajka, and Arber (1976) suggest that "until the mid-1950s, changes in women's and men's attitudes toward the propriety of married women's labor force participation lagged well behind increases in married women's employment rates" (p. 575). The growth of the women's movement in the mid-1960s has led to increased interest in changing sex role attitudes among sociologists and their studies have found dramatic changes in sex role attitudes in the 1960s

and 1970s (Mason, Czajka, & Arber, 1976; Thornton & Freedman, 1979). In a sample of 1,304 white women from the Detroit area, in 1962, 32 to 56% of respondents gave egalitarian responses about sex roles, while in 1977, 60 to 77% did (Thornton & Freedman, 1979). This growing egalitarianism has been embraced by both men and women, although women tend to hold more egalitarian views than men (Cherlin & Walters, 1981). These changes do not hold true for blacks, who traditionally have had more liberal attitudes than whites toward women's employment (Cherlin & Walters, 1981; Mason & Bumpass, 1975).

There is some evidence that attitudes toward women's employment and job rights have changed faster than norms concerning household division of labor (Mason, Czajka, & Arber, 1976; Thornton & Freedman, 1979). In the 1970s, the most dramatic changes have occurred in greater approval of employment of mothers of preschool children (Mott, 1978) and a sharp decline in the number of women believing that maternal employment is harmful to children (Mason, Czajka, & Arber, 1976). Preliminary findings from a small sample of well-educated women indicate that changes in sex role attitudes have continued in the 1980s. Frankel, Manogue, and Paludi (1982) conclude that employment, rather than homemaking, has become the normative expectation for mothers of school-age children. While rural areas are generally slower to change than urban areas, studies of rural women show a similar shift in sex role attitudes toward greater acceptance of women's employment (Brown & O'Leary, 1979; Ford, 1978).

Untangling the web of cause and effect between changes in sex role attitudes toward women's employment and concomitant economic and demographic trends which have fostered women's increased labor force

participation presents a challenge to researchers. Some have argued that since most of the variation in women's labor force participation can be explained by economic and family characteristics, changes in sex role attitudes should be viewed simply as a response to changing economic incentives (Cain, 1966; MoIm, 1978). However, longitudinal studies, which are better able to address questions of causality, have found that while more egalitarian sex role attitudes lead to greater attachment to the labor force, experience in the labor force also leads to more egalitarian sex role attitudes (Ferber, 1982; Spitze & Waite, 1980; Thornton, Alwin & Camburn, 1983; Thornton & Freedman, 1979). As with other changes in societal norms, there may be a cultural lag between changing norms and actual behavior. In a study of role congruence, Araji (1977) has found a positive relationship between reported attitudes and role behaviors (for employment, housekeeper, and child care roles) in a sample of men and women. However, when attitude-behavior incongruence exists, egalitarian role attitudes have been expressed, but have not been reflected in actual role behavior.

In a study assuming that labor force participation affects sex role attitudes rather than vice versa, Huber & Spitze (1981) have found that three measures of wife's employment (labor force participation, labor force attachment, and earnings) are more consistently related to sex role attitudes concerning propriety of a wife's employment and less strongly related to attitudes toward women's rights including the ERA and abortions. They conclude that these findings "imply that attitude and behavior change tend to occur on pragmatic rather than ideological grounds" (Huber & Spitze, 1981, p. 165). This contention is supported by MoIm's (1978) analysis of causal relationships between employment and

sex role attitudes. Molm (1978) has found that employment status affects sex role attitudes, but not vice versa. In an attempt to account for changes in the labor force attachment of married women in the 1970s, Shapiro and Shaw (1983) conclude that changes in sociodemographic characteristics and increased opportunities for advancement and higher wages have been more important than changes in sex role attitudes. However, the addition of sex role attitudes to their models of labor force attachment accounts for about 40% of the increase in labor force attachment from 1967 to 1978.

Despite conflicting findings, the presence of a relationship between sex role attitudes and labor force participation is not in question. Waite (1980) has stated that "causal ambiguity does not vitiate the results of this or earlier analyses, although it should be kept in mind when evaluating results" (p. 275). This caution is quite applicable to evaluations of findings concerning sex role attitudes and labor force participation of women.

Correlates of Sex Role Attitudes

Regardless of whether they are causes or consequences, a number of characteristics have been shown to be related to sex role attitudes. Education has been consistently related to sex role attitudes, with the more educated expressing more egalitarian attitudes toward women being employed (Houser & Beckman, 1980; Huber & Spitze, 1981; Mason & Bumpass, 1975; Mason, Czajka, & Arber, 1976; Smith-Lovin & Tickamyer, 1978; Spitze & Waite, 1981; Thornton, Alwin, & Camburn, 1983; Thornton & Freedman, 1979). In addition, several studies have found that women with better educated husbands have more liberal sex role attitudes

(Houser & Beckman, 1980; Mason, Czajka, & Arber, 1976; Thornton & Freedman, 1979). Mother's education has been positively related to more egalitarian sex role attitudes in a few studies (Scanzoni, 1979; Smith-Lovin & Tickamyer, 1978), although both mother's education and husband's education would tend to be correlated with respondent's education.

After education, work experience is one of the factors most consistently related to more egalitarian sex role attitudes (Houser & Beckman, 1980; Huber & Spitze, 1981; Macke, Hudis, & Larrick, 1978; Mason, Czajka, & Arber, 1976; Scanzoni, 1978, 1979; Spitze & Waite, 1981; Thornton & Freedman, 1979). In general, measures of work attachment or labor force continuity have stronger associations with sex role attitudes than measures of current labor force status. In contrast, Smith-Lovin and Tickamyer (1978) have found little effect of labor force participation on sex role attitudes while Thornton, Alwin, and Camburn (1983) have found that only work experience after marriage is related to more egalitarian sex role attitudes.

While most studies focus on women's attitudes, those which include men have found an effect of gender on sex role attitudes: Women hold more egalitarian attitudes than men (Gackenbach, 1978; Scanzoni, 1975; Tomeh, 1978). Race also has been related to sex role attitudes: Black women are more egalitarian than white women (Gackenbach, 1978; Macke, Hudis & Larrick, 1978; Mason & Bumpass, 1975; Spitze & Waite, 1981). However, these differences could diminish as the labor force participation rates of white women approach that of black women. The lower labor force participation rate of Hispanic women has been attributed to their more traditional sex role attitudes, but Ortiz and Cooney (1984) have

found that sex role attitudes of second and third generation Hispanics do not differ from those of white women.

Age has been related to sex role attitudes in some studies, with younger women having less traditional sex role attitudes (Huber & Spitze, 1981; Thornton, Alwin & Camburn, 1983; Thornton & Freedman, 1979). In several studies, measures of religiosity have been related to more traditional sex role attitudes, particularly for Protestant fundamentalists (Mason & Bumpass, 1975; Molm, 1978; Smith-Lovin & Tickamyer, 1978; Thornton, Alwin & Camburn, 1983; Thornton & Freedman, 1979). Scanzoni (1975) has found that Catholics hold more traditional sex role attitudes than non-Catholics.

Results of studies examining the possible relationship of marital characteristics and number of children to sex role attitudes are inconsistent. Thornton and Freedman (1979) have found that women with more children have more traditional sex role attitudes. However, two other studies have found that marital characteristics, age at marriage, and number of children are not related to sex role attitudes (Mason & Bumpass, 1975; Mason, Czajka, & Arber, 1976).

Women's income from employment also has been correlated with sex role attitudes. Acock and Edwards (1982) and Scanzoni (1978) have found that women with more egalitarian sex role attitudes have higher incomes. A study of Chicago area women also reports a strong association between career commitment and earnings (Lopata & Norr, 1980). In a sample of rural women, Hanson (1983) has found that sex role attitudes significantly add to models explaining wife's income.

In summary, the most consistent correlates of sex role attitudes appear to be education and labor force experience or attachment. Race,

gender, age, and religiosity all have been linked to sex role attitudes. Relationships linking fertility and marital characteristics to sex role attitudes have been less clearly delineated. Higher incomes also have been linked to women with more egalitarian sex role attitudes.

Perceived Needs

Perceived needs related to employment are inextricably linked to the meanings and consequences of work in society as a whole. Although less attention has been paid to the role of perceived needs in labor force decisions than to broad changes in sex role attitudes and labor force participation patterns, there is some evidence that the effect of sex role attitudes on employment may be mediated by the type of needs met by employment.

Women's Needs in Relation to Employment

Among studies which have directly questioned women about their reasons for employment, financial need is the most frequently reported reason given for employment (Duncan & Duncan, 1978; Ferree, 1980; Hafstrom & Dunsing, 1965; McKenry, Hamdorf, Walters, & Murray, in press; Sobol, 1963; Walshok, 1978). Women also report a variety of noneconomic motivations for working outside the home, and these are mentioned even when financial need is the primary reason given. They include: 1) the need to accomplish something, to keep busy, or for mental stimulation, 2) the need for social interaction and friendship outside the home, 3) the need for a challenge, personal satisfaction and self development, and 4) the need for achievement and recognition of self-worth (Duncan & Duncan, 1978; Ferree, 1980; Hafstrom & Dunsing,

1965; McKenry et al., in press; Sobol, 1963; Walshok, 1978). Unfortunately, findings concerning women's perceived needs are weakened by reliance on small samples which often consist only of well-educated women. Walshok (1978) questions two assumptions underlying the current literature on women's employment, which are: 1) employment is of minimal importance to all except well-educated, professional women, and 2) paid employment is simply a necessity or extension of family roles for the lower income woman. Investigation of samples of working class women indicate that employment fulfills needs other than financial for many lower-income women (Ferree, 1980; Walshok, 1978).

Maslow's Hierarchy of Needs

The perceived needs reported by employed women closely correspond to a hierarchy of needs developed by the psychologist, Abraham Maslow, for explaining the desires and drives underlying human motivation (Goble, 1970). Maslow (1954) has postulated five types of needs. Physiological needs include needs for food, shelter, sleep, etc. Security or safety needs include a need for consistency, freedom, and assurance that physiological needs will be met on a routine basis. Belongingness needs include desires for love, affection, and belonging from other people or groups of people. Esteem needs include needs for self-respect and esteem from other people based on one's accomplishments. Self-actualization needs include needs for growth, self-development, and the utilization of one's fullest potential. Maslow has viewed these five needs levels as a loose hierarchy with lower-level physiological needs being met before higher-level needs are felt (Maslow, 1954).

While Maslow's needs are very similar to those reported by employed women, these same needs also could be met through homemaking roles, or roles as an unpaid volunteer, or as a mother. Betz (1982), applying measures of Maslow's needs to a group of college-educated women, has found differences in needs between full-time homemakers and employed women. Employed women have higher esteem needs than homemakers, but both groups have high self-actualization needs.

Sources of Need Fulfillment

The key to understanding the relationship of needs to employment may lie in women's expectations of the appropriate spheres for need fulfillment (which could be considered a definition of sex role attitudes). Faver (1982) relates women's achievement needs, career values, and family values to paid employment status. Employment status is positively related to career values and negatively related to family values with achievement needs having little effect. Faver suggests that achievement needs may be met by home, volunteer, or paid work while career and family values emphasize the source where needs are to be met. Scanzoni (1978) has found that women with more traditional sex role attitudes prefer "familistic" rewards provided by support of husband and children while women who are sex role modern prefer "individualistic" rewards of self-actualization, esteem, etc., gained from employment. Scanzoni has argued that these differing preferences affect the way women perceive the costs and benefits of employment and family. This approach is supported by Thomson's (1980) findings of differing values of extrinsic and intrinsic rewards of employment for a group of mothers of young children.

Interrelationship of Needs and Attitudes

There is some evidence that perceived needs and sex role attitudes may interact with each other in affecting women's labor force decisions. Studies which include measures of work commitment (Bielby & Bielby, 1984) or work attachment (Huber & Spitze, 1981) greatly increase the explanatory power of purely economic models of women's labor force status. Work commitment or attachment can be viewed as indicators of a woman's preference for need fulfillment from employment rather than, or in addition to, needs fulfilled by homemaking.

In addition, Dowdall (1974) has found that sex role attitudes are important in predicting labor force status of women with high-income husbands but not as important for those with low-income husbands. Gordon and Kammeyer (1980) also have found that the effects of other variables changed depending on financial need of the family. These findings suggest that sex role attitudes or preferences for need fulfillment will be important only when employment is an option and not dictated by financial needs. However, Ferree (1976), in a study comparing housework and paid work as sources of satisfaction, cautions that the fact that lower-class women work out of financial necessity "ought not to be allowed to disguise their equally real needs for social contact and self-esteem" (p. 433). The interaction between changing sex role attitudes and needs may have shifted women's expectation of sources of need satisfaction. Frankel et al. (1982) report that, among a sample of well-educated, middle-class women, the normative expectation for a mother of school-age children is employment rather than homemaking, and that the employment would be for self-fulfillment and to keep busy, not

from financial need. Unravelling the relationships among level of needs fulfillment, preferred source of needs fulfillment, and sex role attitudes presents a challenge to researchers in their attempts to better understand women's labor force decisions.

Summary

This chapter has reviewed the extensive literature on women's labor force participation, sex role attitudes, and perceived needs related to employment. Labor force participation has been examined from two viewpoints: 1) that of broad demographic and economic trends related to women's changing labor force participation, and 2) that of microeconomic models of factors affecting an individual woman's labor force decisions. Sex role attitudes have been found to be multidimensional rather than unidimensional. Changes in attitudes toward women's employment have been documented--changes have occurred concomitantly with broader trends related to increasing labor force participation rates of women. Education, work experience, gender, race, age, and other variables are related to sex role attitudes. Women's needs related to employment include psychological needs as well as financial needs. The relationship between needs and sex role attitudes has been discussed in terms of women's preferences for the source of needs satisfaction, i.e., home, unpaid, or paid work. Chapter III will present the research design and methods used to meet the objectives of this study.

CHAPTER III

DESIGN AND METHODS

The purpose of this study was to examine the relationships between social-psychological dimensions (i.e., sex role attitudes and perceived needs) and work roles of rural Oklahoma women. The study was part of a larger project titled Factors Influencing Rural Oklahoma Women's Labor Force Decisions, whose purpose was to identify factors that encourage or constrain rural Oklahoma women's labor force participation and affect labor supply. Included in this chapter are discussions of type of research, instrumentation, population and sample, data collection, analysis of data, assumptions and limitations, and a summary.

Type of Research

This investigation was designed to yield comprehensive data describing sociodemographic characteristics of rural Oklahoma women as well as to measure sex role attitudes and perceived needs. The study used a random sampling survey method in which a questionnaire incorporating primarily fixed format questions was administered. Because survey research commonly has been used to obtain the opinions and attitudes of individuals and to study social structure (Kerlinger, 1964), this method was judged appropriate for the present study. Best (1981) defined descriptive research as involving . . .

the description, recording, analysis, and interpretation of conditions that exist. It involves some type of comparison or contrast and attempts to discover relationships between existing nonmanipulated variables (p. 25).

This definition ably described the purpose and objectives of this study. The study was based on an analysis of data from a survey of 400 rural Oklahoma women. Data were collected by personal interview at the respondent's home. The personal interview was chosen due to the extensive nature of information requested which could be provided most accurately by the respondent herself.

Instrumentation

The instrument used to gather data for this study was created by the principal investigators. Much of the information obtained was demographic and straightforward in nature. Selection of items was based on an extensive review of literature, questionnaires from national studies, and a theoretical model of women's labor force decisions (Peck & Nickols, 1984). Sections of the questionnaire included current employment, income, work preferences, perceived needs, work history, family characteristics, opinions about sex roles, household information (primarily husband's characteristics), and family history/background. The questionnaire was pilot-tested on a small group of women and then revised to improve clarity and consistency before printing. Sections of the questionnaire concerning perceived needs and sex role attitudes have been reproduced in Appendixes A and B.

Sex Role Attitudes Scale

The sex role attitudes scale consisted of 14 statements concerning

men's and women's roles at home and on the job. (See Appendix A for statements.) Respondents were asked to express their opinions by choosing from: strongly agree (1), agree (2), disagree (4), or strongly disagree (5) for each statement. This Likert scale omitted the neutral (3) category but interviewers were instructed to use this category if respondents indicated they did not know or could not decide on an item. Statements were those used in the 1970 National Fertility Study. Due to space and time limitations the original 18-item scale was cut to 14 items for this study. The original scale was factor analyzed by Thornton and Camburn (1979) and their results were used to determine which items to remove to shorten the scale. Items removed from the scale were those that loaded on more than one factor in Thornton and Camburn's analysis or that were more relevant to attitudes about fertility than employment. Although no tests of reliability and validity were reported for this scale, the items had obvious face validity and were similar to those that have been used in other sex role attitude scales.

Perceived Needs

The perceived needs section of the questionnaire consisted of five statements corresponding to the five needs levels of Maslow's hierarchy of needs (Table I). Nonemployed respondents were asked to indicate to what extent each need would influence them if they were to seek employment. Employed respondents were asked to indicate how much each need had influenced selection of their current employment. For each need, respondents indicated amount of influence on a scale ranging from "Not at all" (1) to "A great deal" (6). (See Appendix B for questions.)

TABLE I
RELATION OF PERCEIVED NEEDS STATEMENTS
TO MASLOW'S HIERARCHY OF NEEDS

Statement as Presented	Maslow's Need Level
1. Providing basic necessities (food, clothing, housing)	Physiological
2. Having greater financial security	Safety
3. Working with other people	Belongingness and Love
4. Showing my abilities to others	Esteem
5. Accomplishing something important to me	Self-Actualization

Population and Sample

Population

The population for this study consisted of rural Oklahoma women aged 16 to 64 years of age. The population was restricted to those aged 16 to 64 because these are the prime years for participation in the labor force.

As explained in Chapter I, there had been a need for studies of rural women; however, there existed a lack of consensus regarding the definition of what comprises a rural area. Consequently, studies of rural populations varied widely in the criteria used to select their samples.

Definitions of rural areas generally were based on some measure of population density. For example, the United States Department of Agriculture, Cooperative Extension Service, considered its rural audience to include the population in all areas of less than 50,000 inhabitants (Mosley, 1983), while the U.S. Bureau of Census counted as rural only those persons inhabiting places of 2,500 or less (U.S. Department of Commerce, 1982). While one could argue that the Cooperative Extension definition of rural was too broad, the Census Bureau restriction to places of less than 2,500 population had been criticized as too narrow (Tuebner, 1970; Tickamyer, 1983).

Several issues were considered in determining the definition of the rural population for this study. For example, selection of the sample from counties with 100% rural population by the Census definition would have unnecessarily restricted the sample to isolated areas of the state. However, using an alternative metropolitan-nonmetropolitan selection method would exclude many rural residents living within a Standard Metropolitan Statistical Area-designated county. Standard Metropolitan Statistical Areas had one or more central counties containing an urbanized area of at least 50,000 inhabitants. SMSA's included adjacent counties with close ties to the central counties. These adjacent counties met certain standards of population density, urban population, and population growth. An urbanized area consisted of a central city or cities, and surrounding closely settled "urban fringe." See U.S. Department of Commerce (1982, Appendix A) for more detailed definitions.

In Oklahoma, several counties which had only a small portion of urbanized area were included in a SMSA, although the population density in most of the county was low. To avoid excluding rural women residing

in a county classified as metropolitan, the sample for this study was selected using criteria other than county boundaries. The definition of the rural population for this study was determined to be households in areas outside Census-designated urbanized areas, but not within the city limits of any town of more than 2,500 population. The sample was drawn from these areas, using the selection procedure described below.

Sample

A two-stage stratified random cluster sample of 400 households containing a woman aged 16 to 64 years was drawn from the rural population identified above. The first stage of stratification was by Cooperative Extension District which roughly divides the state into four quadrants. The second stage of stratification was by distance from towns of differing sizes.

Stage I: Quadrant Stratification. One hundred women were interviewed within each quadrant to achieve a total sample size of 400. However, because the rural population of the state was not equally distributed by quadrant, data from each quadrant were weighted proportional to each quadrant's rural population to make the sample representative of the state population.

Stage II: Community Size Stratification. The second level of stratification was designed to ensure a sample of rural women with varying possibilities for labor force involvement while retaining representativeness of the rural female population of the state. Rural areas meeting criteria for inclusion in the sampling frame were divided into four categories: 1) rural areas within five miles of towns of

2,501-10,000 population, 2) rural areas within 10 miles of towns of 10,001 to 50,000 population, 3) rural areas within 25 miles of the center of the urbanized areas of Standard Metropolitan Statistical Areas, and 4) remaining rural areas (including within towns of 2,500 or less). The number of interviews obtained from each of the four categorized was determined proportional to the percent of the total population (as reported in the 1980 Census, U.S. Department of Commerce, 1982) residing in all communities fitting each size category within each quadrant.

Random Selection of Sample Units. Method of sample selection was the same within each quadrant, but varied slightly for each category of rural area. Within each quadrant, for the two categories of areas surrounding 1) towns of 2,501-10,000 population, and 2) towns of 10,001-50,000 population, two towns were randomly selected from a numbered list of that size towns. Each quadrant contained one SMSA except for the southwest quadrant where interviews were divided evenly between the Lawton SMSA and Oklahoma City SMSA. A numbered grid of five-mile square tracts was then superimposed on the 5, 10, or 25 mile radius circles surrounding the SMSAs and selected towns, and interview tracts were selected for each type of town using a random numbers table. For the remaining rural areas, a numbered grid also was used to randomly select two five-mile square rural areas outside the circles surrounding towns of 2,500 or more population within each quadrant. The basic unit for selection was a five-mile square tract not within urbanized areas of SMSAs and not within the city limits of towns of more than 2,500 population. Generally, within each quadrant, two areas were selected for each category of community size.

Households were selected within the sampled five-mile square tracts in a predetermined pattern to avoid biased interviewer selection of dwellings. Interviewers proceeded south or west from the northeast corner of the five-mile square tract or the road closest to the northeast corner of the tract. Every other house was selected beginning with the second house on the right side of the road. Houses on both sides of the road were included in selecting every other house. Interviewers continued selecting every other house until the roads along the outside boundaries of the tract had been traveled, and then began to obtain interviews at dwellings along the roads on the inside of the tract, including streets in towns of 2,500 or less population. At each household selected, the interviewer requested an interview with the "lady of the house" and then determined if the woman was between the ages of 16 and 64.

Interviewers were required to make at least three attempts to contact a household before moving on to another residence. The three attempts were to be at different times of the day with at least one attempt an evening or weekend contact. If residents had not been reached after three attempts to contact, interviewers chose the closest adjacent dwelling as an alternative household to be contacted. Complete details of sample selection were reported in Fox, Peck, and Nickols (1985). Sampling locations are shown in Figure 1.

A total of 670 households were identified using the procedure described above. No contact was made after three attempts at 48 households; 36 additional households were vacant. Twenty-eight households were ineligible because they did not contain a female resident aged 16 to 64. Of the 456 remaining households, 400 were successfully

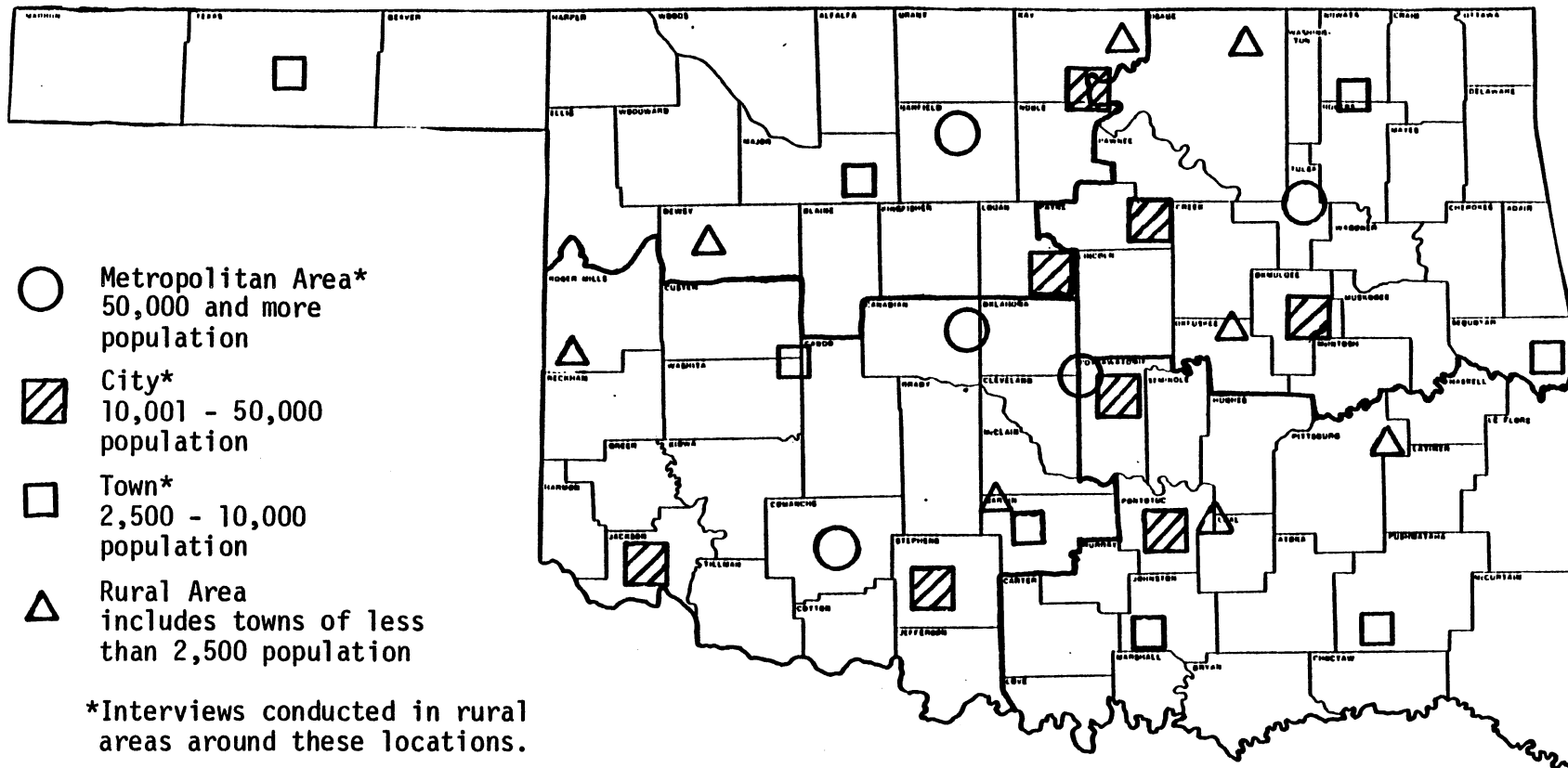


Figure 1. Rural Oklahoma Women's Labor Force Decisions Sampling Areas

interviewed. Of the eligible households, 88% agreed to participate in the study.

Data Collection

Data were gathered by the personal interview method using a structured questionnaire. Interviewers were 14 women who all attended a one-day training session. Interviewers received a detailed manual, maps, and identification materials at the training session. Nine of the interviewers had extensive experience interviewing in rural areas for Department of Agriculture crop surveys and the decennial Census. Three other interviewers had interviewing skills from previous research projects and two interviewers were graduate students.

Interviewers were instructed to record the location of households identified by sampling procedures on maps to ensure that they were executing the predetermined sampling sequence correctly. After contacting the household, interviewers completed a data sheet for ineligible households and refusals. In households where the respondent agreed to be interviewed, interviewers administered the questionnaire. Length of interview averaged 35 minutes, ranging from 15 to 110 minutes. Completed questionnaires were sent to the project office at Oklahoma State University where they were checked for consistency and completeness. Telephone calls were made to 1 in 10 respondents to check the accuracy of information on the completed questionnaires. If necessary, telephone calls also were made to participants to correct missing or inconsistent information.

Questionnaires were precoded for direct data entry, although occupation and industry codes, and codes for open-ended questions, were

coded directly on the questionnaire by a research assistant. After data entry and verification, frequencies were run by computer to detect out-of-range and inadmissible values. Logical checking programs also were run to further "clean" the data.

Analysis of Data

Components of sex role attitudes as measured by the 14-item scale were analyzed using factor analysis. Possible differences in sex role attitude factor scores among women in the three employment groups were tested using analysis of variance. The perceived needs items initially were analyzed for scalability and then factor analyzed. The relation of the perceived needs factors to the three role alternatives was examined using analysis of variance.

The relationship between the sex role attitude factors and the needs factors was analyzed using canonical correlation analysis. The relationship among a woman's current work role alternative, sex role attitudes, perceived needs, husband's attitude toward wife's employment, and sociodemographic characteristics was analyzed using discriminant function analysis.

Assumptions

Analysis and interpretation of data from this study were based on certain assumptions:

- 1) The interviewers were able to establish rapport with rural women selected for this study, thereby eliciting relevant and accurate information from the respondents.

2) Due to the structured nature of the instrument, variations in skill among interviewers did not substantially affect the accuracy of information elicited from respondents.

3) The method of sample selection resulted in a random sample representative of the target population of rural Oklahoma women.

4) Because of the requirement that households be contacted at various times of the day and on weekends, employed women were as likely to be interviewed as nonemployed women.

Limitations

The following limitations exist for this study:

1) This study was limited to rural women aged 16 to 64 residing in the state of Oklahoma. The findings are not generalizable nationally to all rural women due to age and location restrictions.

2) All interviews were completed in July and August of 1982. Answers to some questions may be accurate only for the interview months of July and August (e.g., time estimates for various activities) and not applicable to other periods of the year.

3) The sex role attitude items and perceived needs items were not tested for reliability or validity.

Summary

Subjects of this study were 400 rural Oklahoma women who were interviewed as part of a larger study of factors influencing rural Oklahoma women's labor force decisions. This was a descriptive study exploring the relationships among sex role attitudes and perceived needs in relation to employment and work roles of rural Oklahoma women. The

sample consisted of women aged 16 to 64 living in rural areas of Oklahoma. The sample was drawn using a two-stage stratification scheme. Households were selected within sampled tracts by interviewers who completed personal interviews with eligible respondents. Factor analysis was used to identify underlying factors in the sex role attitudes scale and the perceived needs items. Data were analyzed by analysis of variance, canonical correlation analysis, and discriminant function analysis. Chapter IV presents the results of these analyses.

CHAPTER IV

ANALYSIS OF DATA

This chapter presents the results of data analyses performed to address the objectives of the study presented in Chapter I. The first section gives a brief description of the sociodemographic characteristics of the sample. The second section presents the results of factor analysis of the 14 sex role attitude items. Sex role attitude factors are then compared among women with differing work roles. The third section analyzes patterns of responses to the five needs levels and differences in these perceived needs among groups of women with differing work roles. The fourth section examines the relationship between the sex role attitude factors and the needs components using canonical correlation analysis. The fifth section presents the results of a discriminant function analysis which attempts to classify women into groups with differing work roles based on sex role attitudes, perceived needs, and sociodemographic characteristics.

Description of the Sample

Sociodemographic Characteristics

Age, race, marital status, family characteristics, education, religion and labor force measures for the sample are reported in Table II.

TABLE II
CHARACTERISTICS OF THE SAMPLE

Variable	n	%
<u>Age</u>		
16-25	36	9.1
26-35	102	25.5
36-45	104	26.1
46-55	82	20.4
56-64	76	18.9
<u>Race</u>		
White	380	95.0
Native American	17	4.4
Black	3	0.6
<u>Marital Status</u>		
Married	328	82.0
Remarried	45	11.3
Widowed	12	2.9
Divorced	9	2.3
Never Married	6	1.5
<u>Number of Children</u>		
None	33	8.3
One	45	11.2
Two	139	34.7
Three	89	22.1
Four or more	94	23.7
<u>Age of Youngest Child</u>		
No Child 18 or Under in Household	160	40.0
Less Than 3 Years	58	14.5
3 - 5 Years	38	9.5
6 - 12 Years	78	19.5
13 - 17 Years	66	16.5
<u>Religion</u>		
Protestant, Fundamentalist	256	64.1
Nonfundamentalist	108	27.0
Catholic	19	4.7
Nontraditional Christian	6	1.4
No Preference	11	2.8

TABLE II (Continued)

Variable	n	%
<u>Education</u>		
Less Than High School	80	20.0
High School	153	38.2
Vocational Training	52	13.0
Some College	66	16.5
College Degree	49	12.4
<u>Family Income</u>		
0 - 10,000	60	19.5
10,001 - 20,000	75	24.5
20,001 - 30,000	74	24.4
30,001 - 40,000	60	19.8
40,001 and Higher	36	11.8
<u>Respondent's Income</u>		
None	165	43.0
1 - 5,000	86	22.4
5,001 - 10,000	60	15.6
10,001 - 20,000	60	15.6
20,001 and Higher	13	3.4
<u>Respondent's Current Roles</u> (More Than One May Apply)		
Self-Employed	59	14.8
Employed for Pay	160	39.9
Unpaid Helper in Family		
Farm or Business	105	26.4
Full-time Homemaker	315	78.8
Student	12	3.0
Unemployed or Laid Off	32	7.9
Retired	16	3.9

The sample was fairly evenly distributed across the age categories with 51% between the ages of 26 and 45, and 39% aged 46 to 64. Only 9% were 16 to 25 years of age. The sample was predominantly white with 4% Native American and less than 1% black.

Nine of ten respondents were currently married. Three percent were widowed, 2% were divorced, and 2% had never married. Over 90% of the sample had one or more children, with 45% having three or more children. However, many of these children were adults; 40% of the households did not have a child under 18 in residence. About one-third of the sample had a youngest child of school age, while one-fourth had a youngest child five years of age or less.

Nearly two-thirds of the sample were fundamentalist Protestant in religious preference, while 27% were nonfundamentalist Protestant. Catholics comprised 5% of the sample.

Twenty percent of the sample had less than a high school education, while 35% had completed high school. Somewhat less than one-third had vocational or technical training or some college education. Twelve percent had completed college--a bachelor's degree or higher.

Households from all income levels were well-represented in the sample. About one-fifth of the families had annual incomes of \$10,000 or less. One-half had incomes between \$10,000 and \$30,000, while approximately one-third of the families had incomes above \$30,000. One-fourth of the sample (n = 95) did not know or refused to disclose their family income. Forty-three percent of the respondents had no personal income from employment. Close to 40% had personal incomes of \$10,000 or less, while the remaining 20% had personal incomes of more

than \$10,000. Four percent of the respondents did not know or refused to disclose their personal income.

The rural women in this sample fulfilled a variety of roles. Most women identified themselves as full-time homemakers, while over half were employed either for a wage or salary or in self-employment. About one-fourth of the sample served as unpaid workers in a family farm or business. Smaller proportions were unemployed, retired, or students. In terms of work experience, about 60% of the sample had a work role, either in paid employment or as an unpaid worker in a family farm or business, outside the home for half or more of the years since they were age 18. (Data not given in table.)

Role Alternatives

For purposes of comparison, these rural women were classified into one of three role alternatives. Women with self-employment or paid employment were classified as employed workers. Whomen who reported hours spent as an unpaid helper in a family farm or business were classified as unpaid workers. Women with neither self-employment, paid employment, nor unpaid employment were classified as full-time homemakers. About 17% of the sample reported doing both paid and unpaid work. In these cases, precedence was given to paid employment in assigning employment type. Women were classified as employed rather than unpaid workers unless their unpaid work was four or more hours greater per week than their hours spent in paid employment. Precedence was given to paid employment because of its greater status and economic value in our society when compared to unpaid work in a family farm or business. Four hours was chosen as a cutoff point because it is

one-half of a usual work day. However, most of the women with both paid and unpaid work clearly spent most of their time in one employment alternative, with an additional 5 to 10 hours per week in the other type of employment.

Using these classification criteria, 199 rural women were employed (47.9%), 136 women were full-time homemakers (33.9%) and 65 women were unpaid workers (16.4%). In addition to differences in type of employment, most unpaid workers (74%) worked less than 35 hours per week while only one-third of the employed workers worked less than 35 hours per week.

Sex Role Attitudes

Components

Principal components factor analysis with an orthogonal rotation was performed on the 14-item sex role attitudes scale to address the first research question. The initial analysis produced four factors with eigenvalues greater than one. However, the third and fourth factors each explained no greater proportion of the total variance than could be explained by an individual item in the scale. The factor analysis was repeated restricting the procedure to the extraction of two factors. The two factors accounted for 39% of the total variance in the sex role attitude items. (See Table III for factor loadings). Variables were included in the indices constructed from the factors based on the strength of the factor loadings and theoretical considerations.

TABLE III
TWO FACTORS DERIVED FROM PRINCIPAL COMPONENTS
ANALYSIS OF THE SEX ROLE ATTITUDES SCALE¹

Sex Role Measures	Factor 1	Factor 2
1. A man can make long range plans for his life, but a woman has to take things as they come.	-.20	.47*
2. A pre-school child is likely to suffer if his/her mother works.	.11	.78*
3. A working mother can establish just as warm and secure a relationship with her children as a mother who does not work.	.23	.69*
4. It is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family.	.25	.65*
5. A woman should have exactly the same job opportunities as a man.	.72*	.09
6. Men should share the work around the house with women such as doing dishes, cleaning, and so forth.	.56*	.07
7. A woman should not let bearing and rearing children stand in the way of a career if she wants it.	.42	.29
8. On the job, men should not refuse to work under women.	.53*	.17
9. Women are much happier if they stay at home and take care of their children.	.31	.58*
10. Young girls are entitled to as much independence as young boys.	.36	.14
11. Men and women should be paid the same money if they do the same work.	.68*	-.11
12. Women should be considered as seriously as men for jobs as executives or politicians or even President.	.70*	.17
13. If anything happened to one of the children while the mother was working, she could never forgive herself.	.05	.62*
14. A woman's job should be kept for her when she is having a baby.	.39	.03
<u>Eigenvalues</u>	2.78	2.65
<u>Proportion of Variance Explained by Each Factor</u>	.20	.19

¹Factor loadings are from an orthogonal varimax rotation.

*Indicates which items were retained in each factor.

Five variables were strongly correlated with Factor 1. Four of the five items (5, 8, 11, 12) addressed the idea of equal job opportunities for women and men. The fifth item (6) extended the concept of equal opportunity to men's work in the household. Scores on these five items were added together to form an index labeled Equal Employment Opportunities.

Six items showed strong loadings on the second factor extracted. Four of the six items (2, 3, 9, 13) directly or indirectly assessed the effects of a mother's employment on her children and family. The remaining two items (1, 4) were statements affirming women's responsibilities for home and family. The six items were combined additively to create an index called Home/Child Orientation. Women scoring high on this index believed that the effects of women's employment are detrimental to the children and family.

Sex Role Attitudes and Role Alternatives

Differences in sex role attitudes among women in the three role types were examined using analysis of variance (Table IV). Unpaid workers and homemakers were significantly more traditional on the Equal Employment Opportunities factor than employed workers. These two groups also were more traditional on the Home/Child Orientation factor than employed workers.

TABLE IV
ANALYSIS OF VARIANCE OF SEX ROLE FACTORS
COMPARING FULL-TIME HOMEMAKERS, UNPAID
WORKERS, AND EMPLOYED WORKERS

Analysis	Means	Duncan Groups	F-value
<u>Factor 1: Equal Employment Opportunity</u>			
	Grand Mean = 10.3		4.40
Unpaid Worker	10.9	A	p < .05
Homemaker	10.6	A	
Employed Worker	9.8	B	
<u>Factor 2: Home/Child Orientation</u>			
	Grand Mean = 17.2		6.09
Unpaid Worker	18.3	A	p < .01
Homemaker	17.8	A	
Employed Worker	16.5	B	

Perceived Needs

Components

The second research question addressed perceived needs. Maslow postulated a flexible hierarchy of needs levels which forms a structure for investigations of human motivation. A five-item scale (with the perceived needs items corresponding to the five levels of Maslow's hierarchy) was designed to measure motivations for current or future employment. Following Maslow's theory, the greatest frequency of reported needs was expected at the physiological level, with frequencies

decreasing through the highest level of self-actualization. Responses to the perceived needs items did not appear to fall in an orderly hierarchical pattern (Table V). Frequencies of respondents reporting the importance of a need in relation to current or potential employment (responses 4 through 6 on the scale) were physical needs, 55%; security needs, 63%; belonging needs, 55%; esteem needs, 42%; self-actualization needs, 65%.

TABLE V
DISTRIBUTION OF RESPONSES TO PERCEIVED NEEDS ITEMS

Perceived Need	Not at All	2	3	4	5	A Great Deal
	1					6
	%	%	%	%	%	%
Physical	31.5	3.6	10.0	6.9	7.4	40.6
Security	24.7	4.9	7.8	10.6	13.0	39.0
Belonging	28.4	7.8	9.0	14.1	14.3	26.4
Esteem	39.7	5.5	12.0	10.2	12.1	20.6
Self-Actualization	24.3	4.2	6.3	7.7	17.0	40.6

This initial nonhierarchical appearance of the needs items was confirmed by a Guttman scale analysis of the five needs items. Scalogram analysis (Helwig & Council, 1979) of the needs (ordered from one to five

as in Maslow's hierarchy) failed to produce a unidimensional and hierarchical Guttman scale. The coefficient of reproducibility for the perceived needs items was .75. It should be above .90 in a true hierarchical scale (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975). In addition, the coefficient of scalability was .40 and this coefficient should fall above .60 for an adequate scale.

On the basis of the scalogram analysis, the assumption that the perceived needs items would form a hierarchy was discarded. Subsequently, the relationship of the needs items was examined using frequencies and crosstabulations. Examination of frequencies of responses to the five needs items revealed that about 60% of the responses occurred in the lowest ("Not at All") and highest ("A Great Deal") Categories (Table V). This pattern suggested that the sample responded to the six-point scale in a "yes/no" fashion producing a bivariate response. Plots and crosstabulations of each perceived need with every other need suggested positive correlations of Need 3, Need 4, and Need 5.

Principal components analysis with an orthogonal rotation was performed on the five needs items to explore possible relationships among the perceived needs measures. This factor analysis produced two factors. (See Table VI for factor loadings.) Items 3, 4, and 5 showed strong loadings on the first factor. These three items corresponded to the three higher levels of Maslow's hierarchy and all addressed social and psychological needs in relation to employment. Responses on the three items were added together to form an index called Psychological Needs. Women scoring high on this index indicated that their current or potential employment fulfilled psychological needs.

TABLE VI
TWO FACTORS DERIVED FROM PRINCIPAL COMPONENTS
ANALYSIS OF THE PERCEIVED NEEDS MEASURES¹

Needs Measures	Factor 1	Factor 2
1. Providing basic necessities (food, clothing, housing)	.00	.91*
2. Having greater financial security	.33	.81*
3. Working with other people	.87*	.05
4. Showing my abilities to others	.86*	.17
5. Accomplishing something important to me	.82*	.20
<u>Eigenvalues</u>	2.29	1.56
<u>Proportion of Variance Explained by Each Factor</u>	.46	.31

¹Factor loadings are from an orthogonal varimax rotation.

* Indicates which items were retained in each factor.

The second factor contained high loadings for item 1 and item 2. These two items addressed Maslow's lower-order physiological and safety needs. Responses to item 1 and item 2 were added together to form a second needs index labelled Physical Needs. Women scoring high on this index perceived their current or potential employment as meeting physical and security needs.

Perceived Needs and Role Alternatives

Differences in perceived needs among the three role types were examined using analysis of variance (Table VII). Employed workers had significantly higher needs scores on both factors than unpaid workers and homemakers. Unpaid workers' mean scores were not significantly different from homemakers' mean scores on either the psychological or physical needs indices.

TABLE VII
ANALYSIS OF VARIANCE OF PERCEIVED NEEDS FACTORS
COMPARING FULL-TIME HOMEMAKERS, UNPAID
WORKERS, AND EMPLOYED WORKERS

Analysis	Means	Duncan Groups	F-value
<u>Factor 1: Psychological Needs</u>			
	Grand Mean = 10.8		8.19
Employed Worker	11.9	A	p <.001
Unpaid Worker	9.7	B	
Homemaker	9.9	B	
<u>Factor 2: Physical Needs</u>			
	Grand Mean = 7.8		8.41
Employed Worker	8.5	A	p <.001
Unpaid Worker	7.3	B	
Homemaker	6.9	B	

Relation of Sex Role Attitudes and Perceived Needs

The possibility of an interaction between sex role attitudes and perceived needs has been suggested in a few studies and was the focus of the third research question. The set of two sex role factors was analyzed for possible associations with the set of two needs factors using canonical correlation analysis. Canonical correlation analysis is used to measure associations among sets of variables (Warwick, 1975). Canonical correlation analysis attempts to derive linear combinations of the variables within each set in such a way that the correlations between the linear combinations from the two sets of variables is maximized. The linear combinations are called canonical variates. The canonical correlation and its square (R-square) represent the amount of variance in the canonical variate from one set that is accounted for in the canonical variate from the other set. Coefficients of the canonical variates reflect the importance of the original variables in the subset in contributing to the formation of the canonical variate. The correlation of each variable with its canonical variate also indicates the contribution of each variable to each combination.

It was hoped that this analysis would uncover particular combinations of sex role attitudes and perceived needs that were highly correlated in this sample of rural women. These combinations could then be used in further analysis in place of the individual sex role and needs factors with potentially greater predictive ability. However, the canonical correlation analysis of the attitudes factors with the needs factors failed to produce any highly correlated sets of canonical

variates. Two sets of canonical variates were produced, and, although both were significantly greater than zero, neither showed a correlation strong enough to indicate underlying associations of particular sex role factors with certain needs (Table VIII).

Correlations of individual factors with the canonical variate of the opposite set were all less than 0.30 with the exception of the correlation between the Equal Employment Opportunities factor and the first canonical variate for the Needs factors which was 0.31. Substantial contributions to the canonical variate should be indicated by a loading of at least 0.30 (Wilkinson, 1984). Redundancy analysis and plots of each set of canonical variates with each other also failed to disclose any strong pattern of association. Given the results of the canonical correlation analysis, the best strategy for further analysis of differences among women in the three role alternatives appeared to be the use of each factor score for sex role attitudes and perceived needs.

Social-psychological Factors and Role Alternatives

The relationship of sex role attitudes and perceived needs to the three role alternatives was the focus of the fourth research question and was assessed using discriminant function analysis. A number of sociodemographic variables that have been shown to have an effect on employment status also were included in the discriminant function analysis. The purpose of this analysis was to develop a linear combination of variables which maximally separated the three groups of

TABLE VIII
 CANONICAL CORRELATION ANALYSIS OF THE RELATIONSHIP BETWEEN
 THE SEX ROLE FACTORS AND THE PERCEIVED NEEDS FACTORS

<u>Correlations Between the Sex Role Factors and Canonical Variates of the Needs Factors</u>			<u>Correlations Between the Needs Factors and Canonical Variates of the Sex Role Factors</u>		
<u>Factors</u>	<u>Canonical Variates</u>		<u>Factors</u>	<u>Canonical Variates</u>	
	<u>NEEDVAR1</u>	<u>NEEDVAR2</u>		<u>SEXVAR1</u>	<u>SEXVAR2</u>
Home/Child Orientation	-0.09	0.19	Physical Needs	0.28	0.09
Equal Employment Opportunity	-0.31	0.00	Psychological Needs	0.22	-0.14

First Canonical Correlation = 0.31; R-squared = 0.09; p < .001

Second Canonical Correlation = 0.20; R-squared = 0.04; p < .001

full-time homemakers, unpaid workers, and employed workers. Variables used to create the discriminant function are presented in Table IX.

Distribution of Variables

Discriminant function analysis is based on the assumption of multivariate normality within the groups it is attempting to separate. Normal probability plots were examined for each continuous or interval variable within each role alternative group and most appeared to approximate normality. However, changes were made in several variables to improve the normality of their distributions. (These are explained below.)

Responses to the perceived needs factors were clumped at both ends of the six-point scale. Because it appeared respondents had answered these items in a yes/no manner, producing a binomial rather than a normal distribution, both the psychological needs factor and the physical needs factor were recoded as dummy variables. Psychological and physical need factors received a value of "no" if respondents answered "not at all" to all of the needs items included in the factor, and "yes" if any item had a value greater than one indicating the existence of a need.

While household income was generally normally distributed, each of the three role alternative groups contained a number of outlying values at high income levels (\$75,000 - \$155,000). Characteristics of the 12 cases with household incomes above \$75,000 were examined for possible explanation of the disparity between their reported incomes and the distribution of income in the remainder of the sample. All 12 cases had a self-employed husband and 7 of these were farmers. Due to the

TABLE IX
VARIABLES USED IN DISCRIMINANT FUNCTION ANALYSES

Variable	Name & Type	Values / Ranges
Respondent's Age	RAGE Continuous	17 - 64 years
Age of Youngest Child		
Less Than 3	INFANT	0 = no; 1 = yes
3 - 5	PRESCHL	0 = no; 1 = yes
6 - 18	SCHOOL	0 = no; 1 = yes
None, or Over 18	(Omitted) Dummy	
Religion (Fundamentalist Protestant)	FUNDAM Dummy	0 = no; 1 = yes
Education	REDUC Interval	1 = Grade School 2 = Some High School 3 = H.S. Diploma or G.E.D. 4 = Vo-Tech or Some College 5 = Bachelor's Degree 6 = Master's or Other Professional Degree
Husband's Attitude Toward Wife's Employment	RHUSATT Interval	1 = Like It Very Much 2 = Like It Somewhat 3 = Not Care Either Way 4 = Dislike It Somewhat 5 = Dislike It Very Much
Household Income Without Respondent's Income	HHINC Continuous	0 - 74,000
Equal Employment Opportunities Factor	EQFAC Interval	5 - 21
Home/Child Orientation Factor	HOMEFAC Interval	6 - 29
Physical Needs Factor	PHSNEED Dummy	0 = no; 1 = yes
Psychological Needs Factor	PSYCHND Dummy	0 = no; 1 = yes

disparity in income levels and because all of these husbands were self-employed, it was concluded that these respondents may have reported gross rather than net proceeds from the family farm or business. These cases were excluded from the analysis due to the possibility of such an error. Preliminary analyses including these outlying values tended to inflate mean values for household income and skew the otherwise normal distributions, particularly in the smallest group of unpaid workers.

Unmarried women were missing responses to the question regarding husband's attitude toward wife's employment. Due to the small number of unmarried women in the sample, they were excluded from the analysis. Consequently, marital status was not included as a variable.

Multivariate Analysis of Mean Differences

A discriminant analysis function cannot achieve a meaningful separation of groups or classification if the mean vectors of variables included in the analysis were not significantly different among the groups. Multivariate analysis of variance indicated a significant difference among the mean vectors of variables at the .001 level for the three role alternative groups. Examination of mean values of each variable (Table X) suggested that homemakers and unpaid workers were possibly more alike than different on most variables.

Multivariate analyses of variance were performed on each two-group combination of the original three groups in an effort to more adequately assess the differences (Table XI). These three analyses showed that while employed workers differed significantly from both homemakers and unpaid workers, homemakers and unpaid workers were not significantly different on the set of variables proposed for the discriminant function

analysis. Based on these results, homemakers and unpaid workers were combined into one group in the discriminant function analysis.

TABLE X
MEAN VALUES OF VARIABLES USED IN DISCRIMINANT
FUNCTION ANALYSIS FOR FULL-TIME HOMEMAKERS,
UNPAID WORKERS, AND EMPLOYED WORKERS

Variable	Group Means			F-test ¹
	Full-Time Homemakers (n = 86)	Unpaid Workers (n = 42)	Employed Workers (n = 137)	
RAGE	41.14	41.00	39.87	n.s.
INFANT	0.21	0.07	0.16	n.s.
PRESCHL	0.15	0.12	0.08	n.s.
SCHOOL	0.29	0.52	0.41	<.05
FUNDAM	0.66	0.69	0.64	n.s.
REDUC	3.08	3.19	3.67	<.001
RHUSATT	3.49	3.60	2.64	<.001
HHINC	19,784	23,207	18,204	<.05
EQFAC	10.48	10.86	9.84	n.s.
HOMEFAC	17.54	18.19	15.99	<.01
PHYSNEED	0.74	0.76	0.91	<.01
PSYCHND	0.67	0.76	0.91	<.001

¹One-way analysis of variance among the three groups.

TABLE XI
 MULTIVARIATE ANALYSIS OF VARIANCE ON THE VARIABLES
 USED IN THE DISCRIMINANT FUNCTION ANALYSIS
 COMPARING FULL-TIME HOMEMAKERS, UNPAID
 WORKERS, AND EMPLOYED WORKERS

Analysis	Wilks- Lambda	F	Significance Level
<u>Three-Group Comparison:</u>			
Homemakers Employed Workers Unpaid Workers	0.71	3.83	p <.001
<u>Two-Group Comparisons:</u>			
Employed Workers Homemakers	0.75	5.82	p <.001
Employed Workers Unpaid Workers	0.77	4.01	p <.001
Homemakers Unpaid Workers	0.89	1.23	n.s.

Stepwise Discriminant Analysis

Stepwise discriminant analysis was used to reduce the number of variables in the discriminant function to those having a significant effect in discriminating between the two groups of employed workers and full-time homemakers (including unpaid workers). Variables were permitted to enter or stay in the stepwise analysis at each step if their F-value was significant at the .15 level. A liberal (.15) alpha level was chosen to avoid eliminating variables which might not appear as

strong discriminators due to multicollinearity with another variable previously entered in the function.

Selection of the "best" subset of variables with a stepwise procedure may be problematical when there are large correlations among the variables (Johnson & Wichern, 1982). Johnson and Wichern (1982) also warned of problems with high correlations between qualitative (dummy) and continuous variables or differences in correlations in the two groups. Correlation matrices for the entire sample and within each group were examined for potentially troublesome correlation patterns (Table XII).

The only correlations above .30 between a continuous and qualitative variable were the correlations between respondent's age and the dummy variable for age of youngest child. These correlations were all about .30 and in the same direction for both employed workers and full-time homemakers. The two sex role factors had a correlation of .34 for the total sample and the correlations were stronger in the homemakers group than in the group of employed workers. Husband's attitude, household income, and the Home/Child Orientation sex role factor were related to respondent's education for the homemakers, but only the Home/Child Orientation factor was related to education for the employed workers. None of these correlations are strong enough to suggest linear dependencies in the data set, but they should be given consideration when interpreting the results of the discriminant analyses.

Cases with a missing value for any variable were deleted from the analysis. Unfortunately, 29% of the 372 cases were missing income information. A procedure was developed to estimate the missing income values using median values of income from nonmissing cases with

TABLE XII

CORRELATIONS OF 0.30 OR GREATER FOR THE TOTAL
SAMPLE, EMPLOYED WORKERS, AND FULL-TIME
HOMEMAKERS (INCLUDING UNPAID WORKERS)

Variables	RAGE	INFANT	REDUC	HOMEFAC	PHSNEED
<u>INFANT</u>					
Total Sample	-.39				
Employed	-.38				
Homemakers	-.41				
<u>PRESCHL</u>					
Total Sample	--				
Employed	--				
Homemakers	-.35				
<u>SCHOOL</u>					
Total Sample		-.33			
Employed		-.33			
Homemakers		-.32			
<u>RHUSATT</u>					
Total Sample			-.30	.30	
Employed			--	--	
Homemakers			-.29	--	
<u>HHINC</u>					
Total Sample			--		
Employed			--		
Homemakers			.36		
<u>EQFAC</u>					
Total Sample				.34	
Employed				--	
Homemakers				.38	
<u>HOMEFAC</u>					
Total Sample			-.36		
Employed			-.34		
Homemakers			-.31		
<u>PHSNEED</u>					
Total Sample	--				
Employed	--				
Homemakers	-.30				
<u>PSYCHND</u>					
Total Sample					--
Employed					--
Homemakers					.62

comparable husband's occupation. However, results of discriminant analyses using either estimated or missing values for income produced the same significant variables. In addition, the percentage of correctly classified cases was greatest in those analyses without estimated income values. Because the estimation procedure did not add additional variables nor improve the discriminant function's classification ability, final analyses were made with missing values for income, rather than using the estimated values.

Four variables were retained in the stepwise discriminant analysis. Husband's attitude toward wife's employment, psychological needs factor, household income, and respondent's education entered the discriminant function in the above order. None of the sex role attitude factors were included in the subset of variables selected with the stepwise procedure.

While the main purpose of this analysis was not to develop a classification rule, but to determine which variables achieved the best discrimination between the groups, classification summaries provided a measure of how well the discriminant function was separating the two groups. Higher or lower rates of misclassification would suggest more or less overlap between the two groups. Several discriminant function analyses were performed and classification results compared in an effort to derive an optimal discriminant function. Quadratic functions were used since the variance/covariance matrices of the two groups were not equal (Chi-square test; $p < .001$). Prior probabilities were set at .50 for both groups because they were almost equal in number.

A discriminant function analysis including all variables resulted in correct classification of 77.7% of the cases. This represented an apparent error rate of 22.3%. A better estimate of the actual error

rate that would occur if the discriminant function was used in another sample from the same population could be obtained by randomly splitting the sample into a calibration sample and smaller validation sample. A discriminant function was derived from analysis of the calibration sample and this function was then used to classify the cases in the validation sample. Since the sample was large ($N = 265$), it was randomly split into a two-thirds ($N = 181$) calibration sample and one-third ($N = 84$) validation sample. The subset of four variables identified by the stepwise analysis was used in this analysis.

Means and results of the classification are presented in Table XIII. Employed workers had higher mean education and lower mean household income (without respondent's earnings) than full-time homemakers. Employed workers also had greater psychological needs in relation to employment than homemakers, and husbands with more approving attitudes toward their wife's employment. Sixty-nine percent of the cases in the validation sample were correctly classified using these four variables, which was an error rate of 30.9%.

Summary

This sample of 400 rural women aged 16 to 64 was predominately white and married. Women were evenly distributed across the categories of education and by income. While 92% of the sample had one or more children, 40% of the women lived in households with no children under 18 in residence. Two-thirds of the women had a fundamentalist Protestant religious preference. One-half of the sample was either self-employed or employed for pay and about one-fourth of the women did some unpaid work in a family farm or business. For purposes of comparison,

TABLE XIII

SPLIT SAMPLE DISCRIMINANT FUNCTION ANALYSIS USING
THE SUBSET OF VARIABLES IDENTIFIED BY STEPWISE
DISCRIMINANT FUNCTION ANALYSIS

Groups	Calibration Sample				Validation Sample				n	Total % Mis- Classified
	RHUSATT	PSYCHND	HHINC	REDUC	Classified as					
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Homemakers n	Employed %	Employed n	Homemakers %		
Full-Time Homemakers*	3.53 (1.14)	0.71 (0.46)	20,019 (11,199)	3.13 (0.77)	27	65.8	14	34.2	41	34.2
Employed Workers*	2.62 (1.16)	0.91 (0.28)	18,002 (10,401)	3.71 (1.21)	12	27.9	31	72.1	43	27.9
								Total	84	30.9

* In Calibration Sample, n = 87 Homemakers; n = 94 Employed Workers.

women were classified into one of three role alternatives: full-time homemaker, employed worker, or unpaid worker.

Factor analysis of the sex role attitude items produced an Equal Employment Opportunities factor and a Home/Child Orientation factor for use in further analyses. Scalogram analysis of the five needs items did not confirm a hierarchical structure to the responses as expected. Factor analysis of the needs items produced a Physical Needs factor and Psychological Needs factor. Canonical correlation analysis of the sex role attitude factors and perceived needs factors did not find any interaction between the two sets of factor scores.

Discriminant function analysis was used to classify women into groups with differing employment roles based on the sex role attitudes factors and perceived needs factors. Sociodemographic variables which have been shown to be related to sex role attitudes or labor force status in previous studies also were included in the analysis. Preliminary multivariate analysis of variance among the three role alternative groups on the variables making up the discriminant function disclosed that unpaid workers were not significantly different from full-time homemakers on this set of variables. Consequently, homemakers and unpaid workers were combined into one group for the discriminant function analysis.

Stepwise discriminant function analysis was used to identify those variables with the strongest relationship to role alternatives. Husband's attitude toward wife's employment, Psychological Needs factor, education, and household income comprised the subset of variables most highly related to the groups of full-time homemakers and employed workers. The discriminant function analysis with these four variables

significantly discriminated between the two groups of rural women and resulted in a 30% misclassification rate in a validation procedure. Chapter V will discuss the results of these analyses and make recommendations for future research.

CHAPTER V

SUMMARY AND CONCLUSIONS

Introduction

Changes in women's labor force participation patterns have had many implications for changes in family resource allocation patterns. The relationship among sex role attitudes, perceived needs, and women's work roles has not been thoroughly investigated, and this was particularly the case for rural women. The purpose of this study was to explore the relationships among sex role attitudes, perceived needs, and work role alternatives of rural Oklahoma women. Data were gathered in personal interviews with 400 randomly selected rural Oklahoma women aged 16 to 64. Sex role attitudes and perceived needs were measured using sets of Likert scale items. Extensive sociodemographic information was also obtained. The women in the sample were predominately white and married, although all age, education, and income categories were represented in the sample. Analyses comparing women with differing work roles used three role alternatives: full-time homemaker, unpaid worker in a family farm or business, and employed worker.

Discussion of Major Findings

Sex Role Attitudes

The factor analysis of the 14-item sex role attitude scale reduced

the original scale to two factors, labelled Equal Employment Opportunities and Home/Child Orientation. The two factors for this sample of rural Oklahoma women were strikingly similar to those reported by Thornton and Camburn (1979) using a national probability sample of currently married women. Their first factor consisted of the same items as the Home/Child Orientation factor. Their second factor included the same items as the Equal Employment Opportunities factor with an additional item about child care centers which was not asked in this study. These two factors appeared to measure valid components of sex role attitudes for both these rural Oklahoma women and the women in a national study conducted 13 years previously. These two factors also paralleled components of sex role attitudes observed in studies using different attitude measures (Geerken & Gove, 1983; Huber & Spitze, 1981).

Means and distribution of scores on the three factors revealed a greater prevalence of egalitarian attitudes toward equal employment rights for women than acceptance of a lack of detrimental effects from mother's employment. The same trend of more egalitarian attitudes toward equal employment opportunities than toward effects of women's employment on children and home also had been reported in samples of women in previous studies (Mason, Czajka, & Arber, 1976; Mott, 1978; Thornton & Freedman, 1979). This difference in response to the two factors underscored the danger of assessing sex role attitudes simply with one or two survey questions. Given this specificity in response to the sex role attitude factors, there is a need for further investigation of the multidimensional nature of attitudes toward work and family roles.

Responses to the Equal Employment Opportunities factor had a narrow range and fell almost exclusively on the egalitarian side of the scale. While rural areas often have been viewed as bastions of traditional values and attitudes regarding women's roles, 90% of the rural women in this study expressed attitudes favoring equal employment opportunities for women. Although this was not a longitudinal study, this finding provided support for the hypothesis that changes in attitudes toward equal employment for women, documented in urban and national samples in the 1960s and 1970s, have extended to rural areas. Possible differences in urban and rural attitudes would require comparable samples from rural and urban areas while this study was limited to rural Oklahoma women.

In contrast, responses to the Home/Child Orientation factor was less skewed toward the egalitarian side of the scale with the mean value close to a neutral position on the scale. About half of the respondents perceived mother's employment as having little effect on children and family, while 32% perceived detrimental effects of mother's employment, and 16% were undecided.

The difference in responses to these two sex role attitude factors may seem inconsistent, but the two factors can be viewed as addressing two very different dimensions of sex role attitudes. Items in the Equal Employment Opportunities factor all addressed the right of women to employment in an abstract, civil rights oriented manner while the items in the Home/Child Orientation factor addressed more personal feelings about effects of mother's employment on children and beliefs about women's responsibilities to home and family. It does not seem unreasonable that a woman could affirm the right to equal opportunity in

employment for all women while also holding the belief that employment for mothers of young children could have detrimental consequences for the family.

Results from the analysis of variance comparing full-time homemakers, unpaid workers, and employed workers confirmed a connection between role alternatives and attitude. Employed workers were more egalitarian in their views than unpaid workers and homemakers on both the Equal Employment Opportunities factor and the Home/Child Orientation factor. It is beyond the scope of this cross-sectional study to assess the question of whether the more egalitarian attitudes of employed workers were the cause of, or have been altered by, their employment. Previous studies have shown that choice of work role and sex role attitudes appear to be causally interrelated (Ferber, 1982; Spitze & Waite, 1980; Thornton, Alwin & Camburn, 1983).

Perceived Needs

In this sample of rural women, the existence of a hierarchical pattern of responses to the five needs items on the questionnaire was not confirmed by a Guttman scale analysis. Instead of the five levels of needs postulated by Maslow, factor analysis reduced the five items to two factors, one concerning physical needs and the other concerning psychological needs in relation to employment. While the five items used in this scale were not tested for validity or reliability, Betz (1982), using a more extensive need satisfaction scale, found that while needs of employed workers conformed to Maslow's hierarchy, homemakers had a nonhierarchical pattern of needs. One factor complicating the measurement of needs for married women is that physical needs (for basic

necessities and financial security) often have been provided by the husband's earnings. In addition, homemaking and unpaid work roles have provided an alternative source of satisfaction for psychological needs (Faver, 1982).

In this sample of rural women, employed workers expressed greater physical and psychological needs in relation to employment than homemakers and unpaid workers, but fulfillment of needs by homemaking or unpaid work roles was not assessed. While there were differences between employed workers and the other two groups on needs in relation to employment, the scale used in this study represents a modest attempt to measure needs. Given the complexity of the factors discussed above, further investigation of the relationship among needs and role alternatives is warranted.

Social-psychological Factors and Role Alternatives

While employed workers differed from full-time homemakers and unpaid workers on the two perceived needs factors and on the two sex role attitude factors, other personal and family characteristics may interact with or mediate the effects of perceived needs and sex role attitudes. Respondent's age, age of youngest child, religion, education, household income (without respondent's earnings), and husband's attitude toward wife's employment all have been linked to sex role attitudes and/or labor force participation in previous studies. These variables were included in the discriminant analysis, the purpose of which was to further explore the relationship among sex role attitudes, perceived needs, and role alternatives in this group of rural Oklahoma

women, while taking into account the effects of sociodemographic variables. Exclusion of unmarried women and respondent's missing income or other data reduced the sample for the discriminant analysis to 265 women. Examination of multivariate mean differences prior to discriminant analysis confirmed that unpaid workers were not significantly different from full-time homemakers and these two groups were combined into one group in the discriminant analyses. Husband's attitude toward wife's employment, Psychological Needs factor, household income, and education formed the subset of variables which provided the best discrimination between employed workers and full-time homemakers. Differences between the groups were consistent with the results of previous studies: employed workers have been shown to have higher education, lower household income, greater psychological needs in relation to employment, and a more approving husband's attitude toward employment (Ferber, 1982; Geerken & Gove, 1983; Lopata & Norr, 1980; Macke, Hudis, & Larrick, 1978; Scanzoni, 1978; Thomson, 1980).

The discriminant function created by a linear combination of these four variables significantly separated the two groups and correctly classified close to 70% of the cases in the validation sample. More full-time homemakers (34.2%) were misclassified as employed workers compared to employed workers (27.9%) who were misclassified as full-time homemakers. This may reflect a greater propensity for the group of homemakers to include potential employed workers who are kept out of the labor force by lack of jobs, lack of transportation, inadequate child care, husband's disapproval, or other constraints. Faver (1982) found that, among young married women, there were more nonemployed women with high career values than those employed full-time, suggesting family

life cycle constraints on their psychological needs which could be met by employment. Although this may be the case for women with young children, for the rural women aged 16 to 64 in this sample, none of the dummy variables representing age of the youngest child were included in the subset of variables selected by the stepwise discriminant analysis. This suggests a decline in importance of the presence of young children as a constraint on women's employment, a trend which has been documented in other studies (Hayghe, 1982; Masnick & Bane, 1980; Shapiro & Shaw, 1982).

The presence of husband's attitude in the subset of important variables was intriguing. The cross-sectional nature of this study made determinations of causality impossible, but the question can be raised whether husband's attitude toward wife's employment influences her choice of role alternatives or simply reflects his or their mutual agreement with her current role choices. It should be noted that the attitude item used in this study actually measured the wife's perception of her husband's attitude toward her employment, since the husband was not interviewed. However, in a comparison of wife's perception of husband's attitude and his own reported attitude, Spitze and Huber (1982) concluded that wife's perception was an adequate substitute for husband's reported attitude. The inconsistencies they found between wife's perception and husband's reported attitude occurred in a random manner unlikely to produce bias. In addition, it would seem that wife's perception of her husband's attitude would be the most salient influence on her role choice, rather than a husband's attitude which she does not perceive.

The attitudes of husbands of employed workers may become more favorable toward their wife's employment after experiencing its benefits for the family. Spitze and Waite (1981), using longitudinal data, found that wife's sex role attitudes, preference for employment, and actual employment influenced husband's attitude over time although Spitze and Waite (1981) and Macke, Hudis, and Larrick (1978) found that husband's attitude still had a strong influence on whether or not a wife was employed. Given the multidimensional nature of women's sex role attitudes, husband's attitudes may also include differing elements which are not adequately assessed in a simple approval/disapproval question about wife's employment. Further investigation of the nature of husband's attitudes might provide more clues as to why this variable has been so consistently related to married women's employment.

Although there was a difference between full-time homemakers and employed workers on both the Equal Employment Opportunities factor and on the Home/Child Orientation factors, these measures of sex role attitudes did not enter any of the stepwise discriminant analyses. It may simply be that husband's attitude toward wife's employment was a more direct measure of his current position on her specific employment role than a wife's sex role attitudes in general, and thus, a better discriminator between the two groups of employed workers and full-time homemakers. This lack of discriminatory ability when other variables were considered supported the contention of Huber and Spitze (1981) that attitude and behavior tend to change on pragmatic rather than ideological grounds.

Although neither sex role attitude factor appeared in the final subset of variables forming the discriminant function, the four

variables included in the function represented a combination of both economic and social-psychological differences between the two groups of homemakers and employed workers. Household income represented an economic difference between the two groups, while educational differences contained both economic and psychological elements. Higher education increases the market value of a woman's labor, but there is also evidence that increased education shifts preferences (or needs) for rewards to those provided by employment (Faver, 1982; Scanzoni, 1978). Husband's attitude and psychological needs both represented social-psychological rather than economic differences between the two groups.

Husband's attitude, Psychological Needs factor, education, and household income can be viewed as the variables having the greatest costs or benefits in relation to choice of role alternative of the 13 original variables. Higher education increases the benefits of employment by increasing potential wage rate, and a lower household income increases the benefits (and need for) additional income from a wife's employment. The benefits of employment would be greater for those expressing psychological needs for esteem, belonging or self-actualization in relation to current or future employment than for those who do not express these needs or prefer to fulfill them through another role alternative such as homemaking. For those with a husband who disapproves of his wife's employment, the costs of marital strife would be greater than for those with a husband who is neutral or approving of employment. A recent study of women's sense of well-being has found that nonemployed homemakers, with and without children at home, are greatly dependent on their husband's approval and prestige for their own sense of well-being (Baruch & Barnett, 1983). This suggests that

taking employment when their husbands disapprove might incur greater costs for full-time homemakers than for employed workers.

While the purpose of the discriminant analysis was not to predict labor force status, but to explore differences between the two groups of full-time homemakers and employed workers, the important variables were those that have been identified in previous studies as predictors of labor force participation. The combination of economic, human capital, husband's attitude, and psychological variables that made up the discriminant function were all related to employment in a manner similar to that in previous studies of urban samples. This does not support Hanson's (1982, 1983) findings that human capital variables such as education had less influence than marital or family variables for rural populations.

Recommendations for Future Research

The findings discussed above suggest the following recommendations for future research:

1. The nearly unanimous agreement with the Equal Employment Opportunities sex role factor reduces its usefulness in assessing differences in sex role attitudes. The assumption could be made that equal employment opportunities for women have become a normative expectation in the United States and measurement of the factor is unnecessary. Another approach would be to revise the items in this factor to include even stronger egalitarian measures (e.g., support for comparable worth pay or government provided child care) to more adequately measure the current range of views in society.

2. Since psychological needs proved to be an important discriminatory variable between full-time homemakers and employed workers, development of a good measure to assess needs is warranted. Such an instrument should measure individual's preferences for the source of needs satisfaction (i.e., home, work, unpaid work, community service).

3. Models of women's labor force participation can be improved by the addition of psychological and attitudinal measures. Since husbands' attitudes were different for full-time homemakers and employed workers, future studies should examine this difference in more depth. Some relevant questions are: Are husband's sociodemographic characteristics related to his attitudes (or wife's perception of his attitude) toward wife's employment? Are husband's attitudes unidimensional as has been assumed in previous studies, or are they comprised of several factors?

4. This study was based on a cross-sectional sample of rural Oklahoma women which limits the applicability of results. Additional studies of rural women in other states and regions are needed to replicate these results. Comparative study of similarly selected urban and rural samples could compare the relative importance of economic, socio-demographic, and social-psychological differences in relation to role alternatives. In addition, longitudinal studies could further explicate the tangled web of causal relationships among sex role attitudes, perceived needs, and role alternatives for rural women.

5. Future research should add measures of external economic constraints on labor force participation to the social-psychological and sociodemographic relationships documented in this study. The role of unemployment rates, industry mix, and wage levels of jobs available to

women in rural areas needs further investigation in relation to social-psychological preferences and role alternatives.

Summary

This chapter summarized the major findings of this study and discussed their implications in relation to findings of previous studies. The multidimensional nature of sex role attitudes, patterns of perceived needs and their relation to role alternatives was discussed. Employed workers had more egalitarian sex role attitudes and expressed greater physical and psychological needs in relation to employment than full-time homemakers or unpaid workers.

Husband's attitude toward wife's employment, psychological needs, household income, and education were the set of variables which provided the best discrimination between employed workers and full-time homemakers. These variables were discussed in terms of costs and benefits for the family associated with wife's employment. The chapter concluded with recommendations for future research which could expand and confirm the findings from this sample of rural Oklahoma women.

LITERATURE CITED

- Acock, A. C., & Edwards, J. N. (1982). Egalitarian sex-role attitudes and female income. Journal of Marriage and the Family, 44, 581-589.
- Araji, S. K. (1977). Husbands' and wife's attitude-behavior congruence on family roles. Journal of Marriage and the Family, 39, 309-320.
- Arnott, C. C. (1972). Husbands' attitude and wife's commitment to employment. Journal of Marriage and the Family, 34, 673-684.
- Baruch, G., & Barnett, R. (1983). Lifeprints: New patterns of love and work for today's women. New York: McGraw-Hill.
- Best, J. W. (1981). Research in education (4th ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Betz, E. L. (1982). Need fulfillment in the career development of women. Journal of Vocational Behavior, 20, 53-66.
- Bielby, D., & Bielby, W. L. (1984). Work commitment, sex-role attitudes, and women's employment. American Sociological Review, 49, 234-247.
- Bokemeier, J. L., Sachs, C., & Keith, V. (1983). Labor force participation of metropolitan, nonmetropolitan, and farm women: a comparative study. Rural Sociology, 48, 515-539.
- Brown, D. L., & O'Leary, J. M. (1979). Labor force activity of women in metropolitan and nonmetropolitan America (Rural Development Research Report #15 EAG233 R498). Washington, DC: U.S. Department of Agriculture.
- Buttel, F. H., & Gillespie, G. W., Jr. (1984). The sexual division of farm household labor: An exploratory study of the structure of on-farm and off-farm labor allocation among farm men and women. Rural Sociology, 49, 183-209.
- Cain, G. G. (1966). Married women in the labor force. Chicago: University of Chicago Press.
- Chenoweth, L., & Maret-Havens, E. (1978). Women's labor force participation - a look at some residential patterns. Monthly Labor Review, 101(3), 38-41.

- Cherlin, A., & Walters, P. B. (1981). Trends in United States men's and women's sex-role attitudes: 1972-1978. American Sociological Review, 46, 453-460.
- Dowdall, J. (1974). Structural and attitudinal factors associated with female labor force participation. Social Science Quarterly, 55, 121-130.
- Duncan, B., & Duncan, O. D. (1978). Sex typing and social roles: A research report. New York: Academic Press.
- Faver, C. A. (1982). Achievement orientation, attainment values, and women's employment. Journal of Vocational Behavior, 20, 67-80.
- Ferber, M. A. (1982). Labor market participation of young married women: Causes and effects. Journal of Marriage and the Family, 44, 457-468.
- Ferree, M. M. (1976). Working-class jobs: Housework and paid work as sources of satisfaction. Social Problems, 23, 431-441
- Ferree, M. M. (1980). Working class feminism: A consideration of the consequences of employment. Sociological Quarterly, 21, 173-184.
- Flora, C. B., & Johnson, S. (1978). Discarding the distaff: New roles for rural women. In T. R. Ford (Ed.), Rural U.S.A.: Persistence and change (pp. 168-195). Ames, IA: Iowa State University Press.
- Ford, T. R. (1978). Contemporary rural America: Persistence and change. In T. R. Ford (Ed.), Rural U.S.A.: Persistence and change (pp. 3-18). Ames, IA: Iowa State University Press.
- Fox, K. D., Peck, C. J., & Nickols, S. Y. (1985, February). What is Rural? A Comparison of Sampling Designs. Paper presented at the meeting of the Southern Association of Agricultural Scientists, Rural Sociology Section, Biloxi, MS.
- Frankel, J., Manogue, M., & Paludi, M. (1982). The employed mother: A new social norm? International Journal of Women's Studies, 5, 274-281.
- Fullerton, H. N., & Tschetter, J. (1983). The 1995 labor force: A second look. Monthly Labor Review, 106(11), 3-10.
- Gackenbach, J. (1978). The effect of race, sex, and career goal differences on sex role attitudes at home and at work. Journal of Vocational Behavior, 12, 93-101.
- Geerken, M., & Gove, W. R. (1983). At home and at work: The family's allocation of labor. Beverly Hills: Sage Publications.
- Goble, F. G. (1970). The psychology of Abraham Maslow. New York: Washington Square Press.

- Gordon, H. A., & Kammeyer, K. C. W. (1980). The gainful employment of women with small children. Journal of Marriage and the Family, 42, 327-336.
- Hafstrom, J. L., & Dunsing, M. M. (1965). A comparison of economic choices of one-earner and two-earner families. Journal of Marriage and the Family, 27, 403-409.
- Hanson, S. L. (1982). The effects of rural residence on the socio-economic attainment process of married females. Rural Sociology, 47, 91-113.
- Hanson, S. L. (1983). A family life cycle approach to the socioeconomic attainment of working women. Journal of Marriage and the Family, 45, 323-338.
- Hayghe, H. (1982). Marital and family patterns of workers: An update. Monthly Labor Review, 105(5), 53-56.
- Heaton, C., & Martin, P. (1979). Labor force participation differs significantly for the rural woman. Monthly Labor Review, 102(1), 71-73.
- Helwig, J. T., & Council, K. A. (Eds.). (1979). SAS User's Guide (1979 ed.). Cary, North Carolina: SAS Institute, Inc.
- Houser, B. B., & Beckman, L. (1980). Background characteristics and women's dual-role attitudes. Sex Roles, 6, 355-366.
- Huber, J., & Spitze, G. (1981). Wive's employment, household behaviors, and sex-role attitudes. Social Forces, 60, 150-169.
- Johnson, R. A., & Wichern, D. W. (1982). Applied multivariate statistical analysis. Englewood Cliffs, New Jersey: Prentice-Hall.
- Kerlinger, F. N. (1964). Foundations of behavioral research. New York: Holt, Rinehart & Winston.
- Lopata, H. Z., & Norr, K. F. (1980). Changing commitments of American women to work and family roles. Social Security Bulletin, 43(6), 3-14.
- Macke, A. S., Hudis, P. M., & Larrick, D. (1978). Sex-role attitudes and employment among women: Dynamic models of continuity and change. In Women's changing roles at home and on the job. Proceedings of a conference on the National Longitudinal Survey of Mature Women (National Commission for Manpower Policy, Employment and Training Administration, Special Report No. 26, pp. 129-154). Washington, DC: U.S. Department of Labor.
- Maret, E., & Chenoweth, L. (1979). The labor force patterns of mature rural women. Rural Sociology, 44, 736-754.

- Maslow, A. H. (1954). Motivation and personality. New York: Harper & Row.
- Masnick, G., & Bane, M. J. (1980). The nation's families: 1960-1990. Boston: Auburn House.
- Mason, K. O., & Bumpass, L. L. (1975). U.S. women's sex-role ideology, 1970. American Journal of Sociology, 80, 1212-1219.
- Mason, K. O., Czajka, J. L., & Arber, S. (1976). Change in U.S. women's sex-role attitudes, 1964-1974. American Sociological Review, 41, 573-596.
- McKenry, P. C., Hamdorf, K. G., Walters, C. M., & Murray, C. I. (in press). Family and job influences on role satisfaction of employed rural mothers. Psychology of Women Quarterly.
- Molm, L. D. (1978). Sex role attitudes and the employment of married women: The direction of causality. Sociological Quarterly, 19, 522-533.
- Morgan, K. C., & Hock, E. (1984). A longitudinal study of psychosocial variables affecting the career patterns of women with young children. Journal of Marriage and the Family, 46, 383-390.
- Morgenstern, R. D., & Hamovitch, W. (1976). Labor supply of married women in part-time and full-time occupations. Industrial and Labor Relations Review, 30, 59-67.
- Mosley, J. (1983). (Personal Communication). Division of Cooperative Extension Service, Oklahoma State University.
- Mott, F. L. (1978). Women, work, and family. Lexington, MA: D.C. Heath.
- Nickols, S. Y., & Fox, K. D. (1983). Buying time and saving time: Strategies for managing household production. Journal of Consumer Research, 10, 197-208.
- Nie, N. H., Hull, C. H., Jenkins, J. G., Steinbrenner, K., & Bent, D. H. (Eds.) (1975). SPSS: Statistical package for the social sciences (2nd ed.) (pp. 528-533). New York: McGraw Hill.
- Nye, F. I., & Gecas, V. (1976). The role concept: Review and delineation. In F. I. Nye (Ed.), Role structure and analysis of the family (pp. 3-14). Beverly Hills, CA: Sage Publications.
- Oppenheimer, V. K. (1973). Demographic influences on female employment and status of women. American Journal of Sociology, 78, 946-961.
- Oppenheimer, V. K. (1977). The sociology of women's economic role in the family. American Sociological Review, 42, 387-406.

- Ortiz, V., & Cooney, R. S. (1984). Sex-role attitudes and labor force participation among young Hispanic females and non-Hispanic white females. Social Science Quarterly, 65, 392-400.
- Peck, C. J., & Nickols, S. Y. (1984). Labor force status of women: A multidisciplinary theoretical model. In K. D. Rettig & M. Abdel-Ghany (Eds.), Economic decisions of families: Security for the elderly and labor force participation of women (pp. 267-294). Washington, DC: American Home Economics Association.
- Rexroat, C., & Shehan, C. (1984). Expected versus actual work roles of women. American Sociological Review, 49, 349-358.
- Ritchey, S. J. (1978). Home economics research assessment planning projections report. Blacksburg, VA: Association of Administrators of Home Economics and Agricultural Research Policy Advisory Committee, College of Home Economics, Virginia Polytechnic Institute and State University.
- Rodgon, M. M., & Gralowski, C. (1979). Employment status and sex role attitudes in middle-class suburban mothers. Journal of Applied Social Psychology, 9, 127-134.
- Scanzoni, J. H. (1975). Sex role, life styles, and child-bearing. New York: The Free Press.
- Scanzoni, J. (1979). Sex-role influences on married woman's status attainments. Journal of Marriage and the Family, 41, 793-800.
- Schlater, J. D. (Ed.) (1970). National goals and guidelines for research in home economics. East Lansing, MI: Association of Administrators of Home Economics, Michigan State University.
- Shapiro, D., & Shaw, L. B. (1983). Growth in labor force attachment of married women: Accounting for changes in the 1970's. Southern Economic Journal, 50, 461-473.
- Smith-Lovin, L., & Tickamyer, A. R. (1978). Nonrecursive models of labor force participation, fertility behavior and sex role attitudes. American Sociological Review, 43, 541-557.
- Sobol, M. G. (1963). Commitment to work. In F. I. Nye & L. W. Hoffman (Eds.), The employed mother in America (pp. 40-63). Chicago: Rand McNally.
- Spitze, G. D., & Huber, J. (1982). Accuracy of wife's perception of husband's attitude toward her employment. Journal of Marriage and the Family, 44, 477-481.
- Spitze, G. D., & Waite, L. J. (1980). Labor force and work attitudes. Young women's early experiences. Sociology of Work and Occupations, 7, 3-32.

- Spitze, G. D., & Waite, L. J. (1981). Wive's employment: The role of husband's perceived attitudes. Journal of Marriage and the Family, 43, 117-124.
- Thomson, E. (1980). The value of employment to mothers of young children. Journal of Marriage and the Family, 42, 551-566.
- Thornton, A., Alwin, D. F., & Camburn, D. (1983). Causes and consequences of sex-role attitudes and attitude change. American Sociological Review, 48, 211-227.
- Thornton, A., & Camburn, D. (1979). Fertility, sex role attitudes, and labor force participation. Psychology of Women Quarterly, 4, 61-80.
- Thornton, A., & Freedman, D. (1979). Changes in the sex-role attitudes of women, 1962-1977: Evidence from a panel study. American Sociological Review, 44, 831-842.
- Tickamyer, A. R. (1983). Rural-urban influences on legislative power and decision making. Rural Sociology, 48, 133-147.
- Tomeh, A. K. (1978). Sex-role orientation: An analysis of structural and attitudinal predictors. Journal of Marriage and the Family, 40, 341-354.
- Tuebner, C. (1970). Rural people not on farms. In Center for Agricultural and Economic Development, Benefits and burdens of rural policy development (pp. 3-16). Ames, IA: Iowa State University Press.
- Tweeten, L. A. (1978). Rural employment and unemployment statistics (Background Paper No. 4). Washington, DC: National Commission on Employment and Unemployment Statistics.
- U.S. Department of Agriculture. (1981). A comprehensive national plan for new initiatives in home economics research, extension, and higher education (Misc. Publication No. 1405, 340-932/SEA-65). Washington, DC: U.S. Government Printing Office.
- U.S. Department of Commerce, Bureau of the Census (1982). 1980 Census of Population. Volume 1. Characteristics of the Population. Chapter B General Population Characteristics Part 38. Oklahoma. PC80-1-B38. Washington, DC: U.S. Government Printing Office.
- U.S. Department of Labor. (1980). Handbook of labor statistics. Washington, DC: U.S. Government Printing Office.
- U.S. Department of Labor. (1983). Marital and family patterns of workers: An update (Bureau of Labor Statistics, Bulletin 2163). Washington, DC: U.S. Government Printing Office.

- U.S. Department of Labor. (1985). Employment in perspective: Working women (Report 719). Washington, DC: Division of Employment and Unemployment Analysis, Bureau of Labor Statistics.
- Waite, L. J. (1978). Projecting female labor force participation from sex-role attitudes. Social Science Research, 7, 299-318.
- Waite, L. J. (1980). Working wives and the family life cycle. American Journal of Sociology, 86, 272-294.
- Walshok, M. L. (1978). Occupational values and family roles: A descriptive study of women working in blue collar and service occupations. Urban and Social Change Review, 11, 12-20.
- Warwick, P. V. (1975). Canonical correlation analysis. In N. H. Nie, C. H. Hull, J. G. Jenkins, K. Steinbrenner, and D. H. Bent (Eds.), SPSS: Statistical Package for the Social Sciences (2nd ed.) (pp. 515-527). New York: McGraw-Hill.
- Wilkinson, K. P. (1984). Rurality and patterns of social disruption. Rural Sociology, 49, 23-36.

APPENDIXES

APPENDIX A

SEX ROLE ATTITUDES SECTION OF SURVEY QUESTIONNAIRE

OPINIONS ABOUT ROLES

Now, I would like to get your opinion on a number of statements about women. There are no right or wrong answers; we simply want to know how much you agree or disagree with the statements. (Hand respondent card.) For each statement, you can strongly agree, agree, disagree, or strongly disagree. Do you understand?

	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE	
1. A man can make long range plans for his life, but a woman has to take things as they come.	1	2	3	4	5
2. A pre-school child is likely to suffer if his/her mother works.	1	2	3	4	5
3. A working mother can establish just as warm and secure a relationship with her children as a mother who does not work.	1	2	3	4	5
4. It is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family.	1	2	3	4	5
5. A woman should have exactly the same job opportunities as a man.	1	2	3	4	5
6. Men should share the work around the house with women such as doing dishes, cleaning, and so forth.	1	2	3	4	5
7. A woman should not let bearing and rearing children stand in the way of a career if she wants it.	1	2	3	4	5
8. On the job, men should not refuse to work under women.	1	2	3	4	5
9. Women are much happier if they stay at home and take care of their children.	1	2	3	4	5
10. Young girls are entitled to as much independence as young boys.	1	2	3	4	5
11. Men and women should be paid the same money if they do the same work.	1	2	3	4	5
12. Women should be considered as seriously as men for jobs as executives or politicians or even President.	1	2	3	4	5
13. If anything happened to one of the children while the mother was working, she could never forgive herself.	1	2	3	4	5
14. A woman's job should be kept for her when she is having a baby.	1	2	3	4	5

APPENDIX B

PERCEIVED NEEDS SECTION OF
SURVEY QUESTIONNAIRE

If you are currently looking for a job or might seek a job in the future, to what extent would the following considerations influence you?

	Not at all	1	2	3	4	5	A Great Deal
1. Providing basic necessities (food, clothing, housing)	1	2	3	4	5	6	6
2. Having greater financial security	1	2	3	4	5	6	6
3. Working with other people	1	2	3	4	5	6	6
4. Showing my abilities to others	1	2	3	4	5	6	6
5. Accomplishing something important to me	1	2	3	4	5	6	6

FOR EMPLOYED WOMEN: To what extent did the following considerations influence your decision to take the job you now have?

	Not at all	1	2	3	4	5	A Great Deal
1. Providing basic necessities (food, clothing, housing)	1	2	3	4	5	6	6
2. Having greater financial security	1	2	3	4	5	6	6
3. Working with other people	1	2	3	4	5	6	6
4. Showing my abilities to others	1	2	3	4	5	6	6
5. Accomplishing something important to me	1	2	3	4	5	6	6

VITA 2

Karen Anderson Fox

Candidate for the Degree of
Master of Science

Thesis: SOCIAL-PSYCHOLOGICAL FACTORS RELATED TO RURAL OKLAHOMA WOMEN'S
WORK ROLES

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