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Male and Female Heads of Household: an Analysis of Factors Related to Their Income Differentials.

Bethania Maria Gonzalez

Louisiana State University and Agricultural & Mechanical College

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Male and female heads of household: An analysis of factors related to their income differentials

Gonzalez, Bethania Maria, Ph.D.

The Louisiana State University and Agricultural and Mechanical Col., 1987
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MALE AND FEMALE HEADS OF HOUSEHOLD:
AN ANALYSIS OF FACTORS RELATED TO THEIR
INCOME DIFFERENTIALS

A Dissertation
Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor in Philosophy
in
The Department of Sociology

by
Bethania Gonzalez
B.A., Universidad Catolica Madre y Maestra, 1979
M.A., Louisiana State University, 1983
August, 1987
To Susan Morgan, who believes in women and who believes in me.
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# TABLE OF CONTENTS

**DEDICATION** ................................................................. ii

**ACKNOWLEDGEMENTS** ......................................................... iii

**LIST OF TABLES** ........................................................... vi

**ABSTRACT** .................................................................................. vii

**CHAPTER**

1. **INTRODUCTION** ................................................................. 1
   - Statement of the Problem ......................................................... 7
   - Contributions ........................................................................ 8
   - Organization of the Study ....................................................... 9
   - Summary ................................................................................ 13
   - Notes .................................................................................. 15

2. **LITERATURE REVIEW** ...................................................... 16
   - Personal Variables ............................................................... 20
   - Family Variables .................................................................. 27
   - Structural Variables ........................................................... 31
   - Summary ............................................................................ 45
   - Notes ................................................................................ 47

3. **THEORETICAL FRAMEWORK** .......................................... 49
   - Status Attainment Theory ....................................................... 52
   - Human Capital Theory ........................................................ 57
   - Marxist Theory ...................................................................... 62
   - Marx and Engels on the "Woman Question" ......................... 65
   - Origins of Socialist Feminism .............................................. 67
   - Origins of Women's Oppression ........................................... 71
   - Explanatory Model .............................................................. 81
   - Basic Assumptions of the Model ........................................... 81
   - Hypotheses and Their Explanations ..................................... 82
   - Summary ............................................................................ 92
   - Notes ................................................................................ 94

4. **METHODOLOGICAL PROCEDURES** ................................ 95
   - Data .................................................................................. 95
   - Interviewing Procedure ....................................................... 96
   - Sampling Procedure ............................................................ 96
   - Operationalization of the Variables ...................................... 98
     - Dependent Variable .......................................................... 98
     - Control Variables ............................................................ 99
     - Independent Variables ..................................................... 99
   - Statistical Model ................................................................. 102
   - Summary ............................................................................ 104
   - Notes ................................................................................ 106
V. RESULTS AND DISCUSSION ............................................. 107
   Descriptive Statistics ............................................. 108
   Specification of Measurement Model ...................... 115
   Results and Interpretations .................................... 115
   Descriptive Analysis of Single Males Sample .......... 129
   Discussion .................................................................. 131
   Summary ................................................................... 143
   Notes ...................................................................... 146

VI. SUMMARY AND CONCLUSION ....................................... 147
   Summary ................................................................. 147
   Limitations, Advantages, and Contributions ........... 152
   Implications ............................................................ 155
   Suggestions for Future Research ............................. 160

BIBLIOGRAPHY .............................................................. 163

APPENDIX ................................................................. 172
   Figure 1 LISREL Model for Husbands ..................... 173
   Figure 2 LISREL Model for Single Females .............. 174
   Figure 3 LISREL Model for Wives ......................... 175
   Figure 4 Original LISREL Model ............................ 176
   Table 1 LISREL Input for Husbands Sample ............... 177
   Table 2 LISREL Input for Single Females Sample ..... 179
   Table 3 LISREL Input for Wives Sample ................. 181
   Table 4 Pearson Correlation Matrix for Husbands ....... 183
   Table 5 Pearson Correlation Matrix for Single Females 184
   Table 6 Pearson Correlation Matrix for Single Males ... 185
   Table 7 Pearson Correlation Matrix for Wives .......... 186
   Table 8 Classification of Occupations ...................... 187
   Table 9 Classification of Industries ......................... 192

VITA ................................................................. 194
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Means and Standard Deviations of Variables Used in the Study</td>
<td>109</td>
</tr>
<tr>
<td>2</td>
<td>LISREL Coefficients: Variables Related to Wage Rate by Sample Group [standard errors in brackets] and (t-values in parentheses)</td>
<td>120</td>
</tr>
<tr>
<td>3</td>
<td>Summary of Results and Hypotheses</td>
<td>128</td>
</tr>
</tbody>
</table>
ABSTRACT

The focus of this study was on the interaction of gender and marital status and how it affects hourly wages. This study was designed to identify the extent to which personal variables, such as education, family variables, such as amount of housework, and structural variables, such as percentage female in one's occupation, can explain and predict the earnings of married males, married females, and single females who are heads of household. The target research group was single female heads of household.

Status attainment theories and Marxist theories have been written to explain women's position in the labor force. Specific theoretical frameworks from within these two sociological schools (human capital and socialist feminism, respectively) were chosen to explain the wage gap between men and women by marital category. It was hypothesized that personal, family, and structural variables affect men and women differently. The main objective of this study was to design a model in which the human capital theory; the socialist feminist theory; and the personal, family, and structural variables could be combined.

Data for this study were taken from the 1983 Panel Study of Income Dynamics conducted by the University of Michigan. The information pertains to 1,688 married males, 1,022
married females, and 363 single females heads of household who worked at least 26 weeks in 1982 and who had children living with them. The research design chosen for this study was secondary analysis of sample surveys. LISREL was the statistical procedure used to analyze the data.

The findings supported twelve of the seventeen hypotheses. Three hypotheses were rejected and two were inconclusive based on the results. Overall, the structural variables contributed more to the understanding of the wage determination process by gender and marital status. Education was the strongest predictor of husbands' wage rate; whereas, labor segment was the strongest predictor of wage rate for both single females and wives.
Chapter I

INTRODUCTION

Throughout America, the average working woman earns less than the average working man. In 1974, Levitin et al. reported that "to be exact she earns 58 percent of what an equally qualified man would make" (152). In 1983, women were averaging about $6 for every $10 earned by men (U.S. Department of Labor, 1983a). The most recent estimate is that women are making 64 percent of what men make (U.S. Department of Commerce, 1986). Even though the situation of women is gradually improving, today's women are still below men in earning power (Taylor et al., 1986).

Featherman and Hauser (1976) reported that despite certain differences and changes over time, in general, equality of educational and occupational opportunities has existed in the last couple of decades for men and women. They are quick to clarify; however, that even though men and women achieve similar occupational attainment, they receive different earnings. These authors attribute a large percentage of the unexplained variation in men's and women's wages to discrimination.

Women's participation in the labor force has grown dramatically in the last four decades. The proportion of women in the U.S. labor force grew from one-third in 1950
to more than one-half in 1982 (U.S. Department of Labor, 1983a). Concomitant with the increase in women's labor force participation is an increase in the number of families headed by women and the categorical change in their income from incidental supplement to primary, and even sole, family income.

Women are maintaining an increasing proportion of all families in the U.S. Between 1970 and 1983, the number of one-parent families doubled while the number of two-parent families (i.e., married couples with at least one child under 18) dropped by 5 percent. During the same period, about 90 percent of one-parent families were maintained by the mother. Among all families, about 1 out of 6 (17 percent) was maintained by a woman in March 1984. More than three-fifths of these women were in the labor force (U.S. Department of Labor, 1983a; U.S. Department of Labor, 1984; and Tienda et al., 1987). The growth in the number of families maintained by women by far outpaced that of the other families.

Since more people than ever depend on women's income, their treatment in the labor force has important implications for their welfare and the welfare of their families (Fossett and Galle, 1982 and Tienda et al., 1987). The increase in women's participation in the labor force has not been matched by a similar increase in women's earnings. On the contrary, women's earnings as a
percentage of men's earnings actually decreased from 63.9 percent in 1955 to 59.2 percent in 1981. The earning gap for this period was $1,911 and $3,032, respectively (U.S. Department of Labor, 1983b). As noted previously, women's position relative to men's has improved slightly in the last few years.

Our society is stratified on the basis of sex, as well as race and socioeconomic status. Obviously, society and the labor market as a sector of society consider the "male sex" a more valuable status than "female sex." Males, consequently, receive higher rewards than females for the only reason of being males.

In a five year study, Dickinson (1974) found that 70 percent of the variation in total family income was a result of the amount earned by the head of the family. Therefore, one could infer that the income of the head of the family largely determines the poverty status of the family unit. Results from studies of income differentials suggest that the wage gap is a major cause of the continuing "feminization of poverty" (U.S. National Advisory Council on Economic Opportunity, 1980).

More than one-third of the families headed by women are living in poverty (U.S. Department of Labor, 1983a). If current trends continue, by the year 2000 this nation's poverty population will consist almost entirely of women and children (U.S. National Advisory Council on Economic
Opportunity, 1980). Under such pressing circumstances, it becomes essential that the effects of sexual discrimination on working female heads of household be examined.

This study focuses on women for two reasons. First, women are at the bottom of most pay scales; and second, until recently women were generally ignored by stratification researchers (Falk and Cosby, 1975; Rosenfeld, 1978; Delphy, 1981; Llewellyn, 1981; and Sokoloff, 1981). Men are included in the study for comparative purposes.

Sexual discrimination in the labor force has been studied by scientists within the field of social stratification, also referred to as social inequality. Stratification involves inequality arising from either the actual functions performed by individuals, or from superior power and control over resources or both (Theodorson and Theodorson, 1970). Social stratification theories explain the ranking of individuals' statuses and roles in terms of differential privileges, prestige, influence, or power (Davis and Moore, 1966).

Among mainstream social stratification theories, status attainment theory assumes the equal status of men and women in a stratified labor market. In contrast, within radical social stratification theories, socialist feminist theory explains the unequal status of men and women in a double-stratified (in terms of class and sex)
labor market.

When examining the issues of socioeconomic status and social mobility, one notices that the history of males—of the father's influence on the son's status in the labor force—has been most frequently and seriously investigated. Little attention has been given to the mother-son, and even less, to the mother-daughter socioeconomic patterns of achievement (Rosenfeld, 1978 and Sokoloff, 1981). Developmental occupational choice theory, social mobility theory, and status attainment modeling were originated by men and applied to male populations. This concentration on males has biased most research in these fields (Falk and Cosby, 1975). "It is plausible," say Falk and Cosby (1975:307), "that the mobility, choice and attainment behavior of women differs fundamentally from that of men and thus the majority of our knowledge applies only to males." To this effect, a panel of women scholars pointed out that:

women's experience did not fit neatly into the categories of behavior studied and accepted by male scholars. It was easier, all too frequently, to omit women altogether. We are learning, ... that what was considered human behavior was only masculine behavior" (McGuigan, 1974:1).

The few studies analyzing female mobility patterns did so through fathers' and/or husbands' social class or socioeconomic status (Falk and Cosby, 1975; Rosenfeld, 1978; Delphy, 1981; Llewellyn, 1981; Sokoloff, 1981). For
women, and women alone, marriage replaced occupation as
the measure of the individual's social class status
(Delphy, 1981). In other researches of occupational
mobility, women were usually studied in their capacity as
the mother, wife, daughter or sister of the male
respondent. A very limited number of cases studied only
single females (Dickinson, 1974). In short, rarely have
women and their socioeconomic status been studied in their
own right.

The study of women's own occupational mobility was not
generally accepted until the 1970's. Since then,
increasing attention has been given to the place of women
in social stratification studies (Rosenfeld, 1978 and
Delphy, 1981). Studies in this new light constitute a real
breakthrough for investigating the attainment patterns of
women as well as of men. Results from these studies
indicate that although social class origins (commonly
measured by father's socioeconomic variables) do influence
the daughter's occupational attainment, a woman's
socioeconomic origins are less important than her own
occupational achievement. A similar process has been found
to exist for men (Rosenfeld, 1978 and Sokoloff, 1981).

Neglecting the status of women (i.e., women's status
for their own sake) in research agendas is not an
historical characteristic of status attainment scholars
alone. Marxist researchers have been known for holding a
similar sexist attitude. It was not until the late 1960’s and early 1970’s, with the rise of the feminist movement, that "the women question" appeared on Marxist research agendas. The author is under the impression that sex-biased research agendas are not a property of status attainment or Marxist researchers but of social stratification research in general. However, the feminist movement has been instrumental in having women included in most social research conducted in the last two decades. The present study will contribute to this new tradition.

**Statement of the Problem**

The focus of this study is on the interaction of gender and marital status and how it affects hourly wages. This study was designed to identify the extent to which personal variables such as education, family variables such as amount of housework, and structural variables such as percentage female in one's occupation explain and predict the earnings of married males, single males, married females, and single females heads of household.

The main objective in pursuing this study was to compare the effect of the personal, family, and structural variables on the wage rate of gainfully employed individuals according to their gender and marital status. Much has been written about the "feminization of poverty," especially of single females heads of household, but little
has been said about the personal, family and structural variables that interact with gender and marital status and which are involved in the determination of women's lower wages.

Personal, family, and structural variables are expected to affect men's and women's wages differently. For example, it is hypothesized that personal characteristics such as education and tenure affect women's wages positively but not to the same extent they affect men's. Family constraints such as those measured by housework and children under five are hypothesized to affect women's wages negatively while having little or no effect on men's wages. Market characteristics such as economic sector and union status of the job are hypothesized to affect women's wages positively but to a lesser degree than men's.

Contributions

The primary contribution of this study is the development of a model to explain the relationship between workers' personal, family, and structural variables and the workers' hourly wage rate. Factors related to workers' personal, family, and structural characteristics have traditionally been analyzed separately and tested under different theories. This study attempts to combine the variables and the theories in single a model in an effort
to increase the explanatory power derived from previous separate models.

A second contribution of this study is the separation of respondents into four subsamples: married males, single males, single females, and married females heads of household with children living at home. By separating the respondents by gender and marital status, the researcher was able to apply a variation of the original model to each subsample (except single males) and was able to compare the effect of the different variables (i.e., personal, family, and structural) on the wage rate earned by each group. Although other studies have emphasized gender and used it as a controlling variable, rarely has its interaction with marital status been measured and controlled (Dickinson, 1974).

Organization of the Study

A review of the literature pertaining to the variables included in this study is presented in Chapter II. This review is divided into three sections identified as 1) personal variables which include the variables education, years in the labor force, years of full time employment, tenure (i.e., months working for present employer), number of weeks worked, and geographic mobility; 2) family variables which include the number of children under the age of 20 living in the household, number of children under
five, weekly hours devoted to housework, and absenteeism (i.e., time taken off from work to care for sick family members); and 3) structural variables which include race, geographic background (i.e., growing up on a farm or in the city), labor segment (i.e., independent primary, subordinate primary, and secondary), percentage female in respondent's occupation, economic sector (i.e., core, government, or periphery), union membership, and union status of the job.

Theories chosen to explain the income differentials of married males, married females, single males, and single females heads of household are discussed in Chapter III. Two specific frameworks are presented as theoretical grounds for this investigation. The first is the human capital theory which analyzes individuals' economic attainment as the result of investment in human capital (Mincer, 1962; Schultz, 1962; and Becker, 1964). This approach is popular among economists. The second framework is the socialist feminist theory which has influenced studies with a feminist concern for the impact of women's "traditional responsibilities" on their employment experiences. This theory focuses on women's labor market position as a result of interacting family and market variables. While prior occupational status attainment studies considered women's position in the home as a "problem" or a barrier to the analysis, the socialist
feminist approach makes that position a key element in the analysis of women's condition in the labor market (Sokoloff, 1981). This study combines the human capital theory and the socialist feminist theory in a single model in an attempt to explain the wage gap between men and women.

Variables related to the personal, family, and structural characteristics have been measured previously by researchers within the human capital and socialist feminist frameworks with varying emphases by type of framework. None of the variables included in this study is unique to either framework, but in general, the human capital theorists have emphasized personal or individual variables; whereas, the socialist feminists have emphasized family and structural variables.

The model designed for this study was framed against some basic assumptions. These assumptions are 1) personal and family variables affect workers' marginal productivity of labor, which in turn affects earnings, 2) family responsibilities affect men's and women's work behavior differently, 3) structural variables affect individuals' earnings, 4) individuals have some control over personal and family variables, 5) control over personal and family variables is constrained by society and family socialization, and 6) individuals have little or no control over structural variables.
A description of the research methodology is included in Chapter IV. The research design chosen was secondary analysis of sample surveys. The data for this study were drawn from the 1983 Panel Study of Income Dynamics (PSID) conducted by the University of Michigan. The PSID was deemed an appropriate data set for the present study because it over-sampled low-income households and therefore contains an unusually large number of female-headed households. In every other aspect, the data are representative of the general U.S. population (McLanahan, 1985).

A subsample of employed married and single males and married and single females heads of household with dependents in the house was examined. The investigation was restricted to heads of households who worked at least 26 weeks (i.e., half a year) in 1982. No sources of income other than salary or wages from their main job were included in the calculations. The data were analyzed using the Linear Structural Relationships (LISREL) statistical procedure.

Results of the analyses of the data are discussed in Chapter V. Findings from the model variations developed for married males, single females, and married females heads of household are presented and interpreted in this chapter. Due to the small size of the single males sample, only a description of the correlations of their personal,
family, and structural variables with their wage rate is presented. Descriptive statistics pertaining to the independent variables in the four samples are also offered in this chapter.

A summary and conclusions of this research are presented in Chapter VI. Limitations, advantages, and contributions as well as implications and suggestions for future research are also discussed.

Summary

Women's earnings represent, on the average, only 60 percent of men's earnings. With the increasing number of families supported by women, attention should be given to the variables responsible for the unequal treatment of men and women in the labor market.

Status attainment theories and Marxist theories have tried to explain women's position in the labor force. Specific theoretical frameworks from within these two sociological schools (human capital and socialist feminism, respectively) were used to explain the wage gap between men and women by marital category.

Data for this study were taken from the 1983 Panel Study of Income Dynamics conducted by the University of Michigan. The information pertains to married males, single males, married females, and single females heads of household who worked at least 26 weeks in 1982 and who had
children living with them. LISREL was the statistical procedure used to analyze the data.
(1) Due to the small sample size of single males, we were limited to a descriptive analysis of selected statistics.
Chapter II

LITERATURE REVIEW

Women earn less than men, regardless of the sector of the economy examined. Women, similar to other minority members, experience discrimination in the labor market and are unable to translate their education and training into economic gains with the same degree of success as white males (Falk and Cosby, 1975; Beck et al., 1978; Sokoloff, 1981; Fossett and Galle, 1982; and Birdsell and McGreevey, 1983). The mechanisms that determine wage rate, in general, operate in a similar manner for both males and females. Women with more education, experience, and tenure earn more than women with less education, experience, and tenure. Nevertheless, the size of the economic returns received by women is definitely smaller than that of men's (Dickinson, 1974).

In a well documented review of prevailing theories accounting for differences in economic attainment by race and sex, Fossett and Galle (1982) state that unlike patterns of occupational attainment, patterns of earnings attainment for women diverge sharply from those for men in two basic ways. First, women have less success than men in converting their characteristics of education and experience into earnings. Second, women's earnings
attainment are subject to influence from a number of factors related to family responsibilities that infrequently influence the earnings of men. The authors further indicate that if the negative effect of sexual discrimination is added to the depressant impact of women's traditional responsibilities as wives, homemakers, and mothers, we get a better understanding of the male-female income gap.

In a study based on a national sample of employed workers in a wide variety of occupations, Levitin et al. (1974) found that 95 percent of the working women were earning less than they should, based on their achievements. This result gives one a good reason why households headed by women are much more likely to be poor than households headed by men (Birdsall and McGreevey, 1983). The U.S. Department of Labor (1983a) reported that women who maintain families are more likely to face serious economic difficulties as evidenced by unemployment rates, low family income, and a higher percentage in poverty. It should be stressed that one out of every three families headed by women versus one out of every nine headed by single men and one out of sixteen married-couple families are living in poverty (Johnson, 1978 and U.S. Department of Labor, 1983a).

In her analysis of data collected by the Michigan Panel Study of Income Dynamics (PSID) between 1967 and
1971, Dickinson (1974) found that 20 percent of the female heads of household were employed for all five years. According to Dickinson, 55 percent of the sampled female-headed families living below the poverty line would not have been in poverty had the women been paid wages comparable to men's.

By no means are we trying to say that women, or single female heads of household, are the only disadvantaged members of society. Studies indicate that various types of disadvantaged workers do not receive rewards for their different experiences (Coverman, 1983). There are income differentials among the many racial and ethnic groups, between people of urban and rural background, and between married and single people. Using 1960 and 1980 census data to measure earnings inequality by race, sex, and industrial sector, Taylor et al. (1986) found negative coefficients related to the marital status of the respondents. They explain that:

married white women earned significantly less than those who were unmarried, while both white and black married men earned significantly more than unmarried men. ...In contrast, black women’s marital status bore no significantly (sic) relationship to their annual earnings (124).

The same effect was found across all industrial sectors. The authors state that there is no clear indication of whether white women's negative coefficients were due to their pursuit of a narrower range of jobs due to family responsibilities or to the employers' expectations of
familiar interference with the job.

For clarity and explanatory purposes, the variables included in the present study are presented in this chapter in three main sections identified as personal variables, family variables, and structural variables. This division is compatible with the division of the theories in Chapter IV into mainstream and conflict. Mainstream theorists (e.g. functionalists, status attainment, human capital) have traditionally researched personal variables whereas conflict theorists (e.g. socialist feminists, economic dualism) have traditionally researched family and structural variables.

Deseran et al. (1984) used similar groups of variables (plus some farm-related ones) to explain farm-families' income. Their purpose in using the different groups of variables was to increase the level of understanding of income determination rather than to contrast the explanatory power of each group. The authors indicate that:

The theoretical question is not one of "either/or," but rather to what degree does each type of factor impinge on the earning capacity of families; and perhaps more importantly, what are the joint effects of such factors. In this case, our interest is in examining how these factors differently operate in relation to a specified segment of the labor force—farm families (214).

With the difference that our specified segment of the labor force is single female heads of household, the researcher shares Deseran et alii's interest in a joint explanation of
income determination rather than several partial ones.

Personal Variables

The personal variables included in the model developed for this study are years in the labor force, length of full time employment, tenure (i.e., months in present job), number of weeks worked in 1982, and geographic mobility. These variables have been associated with workers' experience or attachment to the labor force.

In terms of education, Acock and Edwards (1982) found that, although education had a strong effect on male status attainment, this was not the case for the women they studied. Many explanations of this difference have been offered. It has been argued that women are relegated to jobs for which they are overqualified and are denied the opportunity to employ their full capabilities. Findings from a study conducted by Treiman and Terrell (1975) using census data from 1940, 1950 and 1960 did not substantiate this argument. They reported that the average woman worker was neither more or less educated than the average man doing the same job; but, in spite of equal educational attainment, women received a lower return from education than men. Similar results have been found by Dickinson (1974); Sokoloff (1981); Fossett and Galle (1982); Birdsall and McGreevey (1983); and Jacobs (1985).
Treiman and Terrell (1975) found that the payoff for each additional year of schooling was for women about two-thirds of what it was for men when number of hours worked was controlled. They also found that hourly earnings for women were substantially less than they were for men when education was controlled. Using 1967-1971 PSID data, Dickinson (1974) found that women were earning 22 cents an hour for each educational category they had attained, a payoff which was only 55 percent of men's educational benefit. These results support Treiman and Terrell's (1975) contention that the condition of women has worsened in the last three decades. Using 1970 and 1980 census data, Tienda et al., (1987) found the average dollar return for each year of education to be significantly different for women and men, $240 and $410, respectively (women were averaging fifty-eight percent of men's returns to each year of education).

Dickinson (1974:125) remarks that "while education has become more equal in recent years, the distribution of income has not." She indicates that education, nevertheless, remains the most important criterion for allocating high paying and low paying jobs to both men and women. Other authors (Falk and Cosby, 1975 and Fossett and Galle, 1982) have arrived to the same conclusion. Jacobs (1986:173) qualifies the effect of education on earnings. He indicates that "the dispersion in education attainment
is a strong determinant of the distribution of income after
(emphasis ours) important institutional factors have been
taken into account."

Limited work experience is a variable generally
associated with wages. The argument around this variable
is that: women are more likely than men to leave the labor
force. The lack of or weak labor force attachment (due to
intermittent work) contributes to the depreciation of
women's human capital which in turn negatively affects
their wages. According to Mincer and Polachek (1974),
women's human capital depreciates during the time they
withdraw from the labor force to bear and care for their
children. The authors believe that prolonged
nonparticipation may cause the skills acquired at school
and at work to depreciate.

Work experience and/or labor force attachment have
been measured using indicators such as age, years in the
labor force, full-time employment, tenure with present
employer, absenteeism due to own or family member's
illness, self-imposed restrictions on work hours and/or job
location, and voluntary part-time. According to the human
capital theory, higher investment levels should be observed
in workers with stronger labor force attachment (Mincer and
Polachek, 1974).

Corcoran (1978) found that lack of or weak labor force
attachment did not affect women's earnings in her study.
While agreeing that women are more likely to leave the labor force, she indicates that this did not affect their income because women's work skills depreciated slightly, if at all, during periods of nonwork. Using PSID data to compare differences by race and sex, Corcoran (1974) found that work skills did not appear to become appreciably less valuable during periods of labor force withdrawal. She concluded that:

Staying out of the labor force has surprisingly few significant direct effects on wages, and no effect is significant for more than one race/sex group. Those effects which do exist depend on the timing of worker's labor force withdrawals (71).

The timing of work experience and labor force withdrawal seems to be more closely related to wages than length of the labor force withdrawal. Work experience prior to an interruption is less important in determining wages (especially those of white males) than work experience after an interruption (Corcoran, 1974 and Mincer and Polachek, 1978). The amount and nature of training or work experience the worker has received prior to a work interruption and the labor segment in which he/she works are more significantly related to wages than length of work interruption (Corcoran, 1974).

Mincer and Polachek (1978) found that the rate of returns to human capital investment during short periods of labor force participation is less significant than the rate of returns to investment during long periods of labor force
participation. Since many women stay in the labor force once they have their family responsibilities under control, the experience they acquire prior to a labor force interruption is probably less important in determining their wages than the experience they acquire after their reentry.

Continuity (i.e., lack of labor force interruption) was found by Acock and Edwards (1982) not to be related to women's wages. They indicate that:

Arguments concerning the importance of continuity in the labor force as an explanation of discrimination against working-women receive little support from these results. Continuity does have a significant correlation with income when no other variables are controlled (587).

These authors found women's gender-roles attitudes to have a more significant effect on women's income than their continuity in the labor force.

Corcoran (1978) found that self-imposed restrictions on job hours or location, voluntary part-time work, and geographic mobility exerted no significant impact on women's wages. She did find that years in the labor force, years in present job, and the percentage of full-time employment exerted considerable impact on women's wages. Coverman (1983) found significant economic returns based on education and numbers of hours spent at market work for both sexes.

Coverman (1983) found high collinearity between age and years in the labor force, and between age and years in
the present job. She decided to include age and to exclude years in the labor force in her study. A high collinearity between age and years in the labor force was also encountered in the present study, but in contrast to Coverman's decision, age was excluded and years in the labor force was left in the model (2).

A measure of work experience was sought for the present study which could be interpreted the same way for men and women. Since most men join the labor force immediately after school, age may be a good indicator of their potential work experience but this is not the case for women whose family responsibilities might delay or interrupt their labor force participation (Beck et al., 1978 and Deseran, 1984). Mincer and Polachek (1974) recommend the utilization of years in the labor force rather than age as a measure of work experience. They indicate that:

Where past work experience of men can be measured without much error in number of years elapsed since leaving school, such a measure of "potential work experience" is clearly inadequate for members of the labor force among whom the length and continuity of work experience varies a great deal. Direct information on work history of women is, therefore, a basic requirement for the analysis of their earnings (578).

Another measure of attachment to the labor force is the amount of time devoted to market work. On the average, women work fewer hours than men, but women doing "female" jobs work considerably less than women doing "male" jobs.
Likewise, men doing "female" jobs work substantially less than men doing "male" jobs (Treiman and Terrell, 1975). These findings suggest that type of job ("male" or "female") rather than sex of the worker influences the number of hours worked. This is a reversal of the most common way of thinking: sex of worker determines number of hours, days, or weeks worked.

In relation to geographic mobility or migration, women are less likely to migrate to obtain higher wages, and when they do migrate it is usually following their spouses' job changes. This last type of move does not benefit women since they lose seniority in their former jobs, if employed, and/or may go unemployed while resettling (Oppenheimer, 1968; Llewellyn, 1981; and Fossett and Galle, 1982). Mincer and Polachek (1978) found that single females' wages were positively affected by short periods of residency (i.e., inverse measure of geographic mobility). The same measure had a negative effect on wives' wages. The implications from these results are that single women benefit from migration whereas married women (especially white) benefit from lack of migration or geographic stability.

Tienda et al. (1987) measured the effect on annual earnings of human variables and of structural variables related to industrial restructuring and occupational recomposition processes which defined the range of jobs
available to men and women in the 1970's. They found the structural industrial and occupational variables to be considerably less important than the individual skill and demographic characteristics in determining annual earnings. Jacobs (1978) used human capital and institutional variables to predict wages and found both sets of variables to be valid. He concluded that the institutional variables predicted income inequality even when important human capital variables have been controlled.

**Family Variables**

The family variables in the present study are to number of children under the age of 20 living in the house, number of children under five years of age, housework (i.e., weekly hours devoted to home labor), and absenteeism from work to care for sick family members. These variables have been associated with constraints and limitations more typical of female than of male workers.

When seeking a job, or planning a job change, personal and family problems affect women more than men. A heavier draw on a female's resources is expected from family problems (Ferman, 1974 and Corcoran, 1978). Fossett and Galle (1982) cite evidence of the reverse effect of family responsibilities by sex. They point out that at similar levels of education, working women who are single attain higher earnings than do working women who are married,
while the opposite is true for men. One could conclude that family responsibilities, such as number of children and children's age, affect men's earnings positively (i.e. men earn more money when their family responsibilities increase).

In relation to number and ages of children, Deseran et al. (1984) found that number of children in the home had a significant negative effect on wife's off-farm earnings and a nonsignificant effect on husbands'. Coverman (1983) found that having children in the home affected women's labor force participation; but for those who decide to work, number of children did not affect their work achievements. Women's earnings were not affected by either preschool or school-age children whereas preschool children affected men's earnings positively. Waite et al. (1985) also found that children affected whether or not women entered or reentered the labor force. In their study, children had no effect on the labor force commitment of those women who decided to work. They summarized their results as follows:

Our findings for changes in job holding and for hours at work given employment show that the most important contributor to married women's decreased work activity following parenthood is withdrawal from employment. Women who retain their jobs show some decline in hours work, but on average work about 35 hours per week two years after the birth compared to about 38 hours per week before (271).

Using panel data from the National Longitudinal Study, Waite et al. (1985) found that children had a positive
effect on men's work activity. The authors called this finding the "parenthood effect" and indicate that such effect started well before the women's pregnancy. They reason that:

men who work hard may, as a result, be able to undertake the demands of fatherhood somewhat earlier than other men, and that timing of parenthood responds to rather than determines work effect (271).

These results suggest that children did not directly affect men's earnings. What was probably affecting men's earnings was the extra market-work (i.e., paid work) some men did before the children were born.

Polachek and Mincer (1978) found that when added to women's earnings functions, measures of number of children and children's age had a non-significant negative effect. The same measures approached a negative significance level only when included in the earnings function of highly educated women. Cramer (1980) found that the impact of newborns on women's employment declined rather sharply as children approached school age, at least among higher birth orders. He explains that it was the children's young age, except in cases of adoption of older children, rather than the children per se, what probably affected women's employment.

Domestic labor is assumed to have a negative impact on unmeasured constructs such as productivity, work commitment, effort, and leisure time. All these are
presumably related to income differentials. There are, after all, only twenty-four hours in a day. The time devoted to one type of activity will, after a certain point, affect other types of activities quantitatively (e.g., reduced number of hours) and qualitatively (e.g., reduced efficiency and energy). Coverman (1983) found that time devoted to domestic labor decreased women’s and men’s wages and therefore influenced the relative economic achievement of both sexes.

Female workers are disadvantaged in relation to male workers because of other less apparent job-related characteristics. Family responsibilities reduce women’s time for study, union organization, training programs, overtime work and some other job-related activities which might enhance their earning potential (Corcoran, 1978 and Coverman, 1983). Employed women forego leisure in attempting to combine home and market work. Lack of energy and leisure time may be related to women’s lower job productivity when compared to men’s, but the evidence is still inconclusive (Coverman, 1983).

Coverman (1983) found that socioeconomic class acted as an intervening variable in the family responsibility-wage relationship. Working-class men’s earnings were affected by amount of home labor while the same was true only for non-working class women. She concluded that women with higher-earning power married to men with lower-earning
power, received the greatest negative effect on earnings due to housework when compared to other working women. Absenteeism or time taken off from work to care for one's own illness or to care for sick family members was found not to be related to women's wages (Corcoran, 1978).

Structural Variables

The structural variables included in this research were race, geographic background (i.e., rural or urban), labor segment (i.e., independent primary, subordinate primary, or secondary), percentage female in respondent's occupation, economic sector (i.e., core, government, and periphery), union membership, and union status of the job. These variables have been emphasized by socialist feminists and other Marxists of different academic and political orientations.

Although race is commonly considered an individual's characteristic, in the present study it is treated as a social barrier, a hindrance or double obstacle some women must overcome, and an external element which depresses their wages. Earnings differences between racial groups have been linked to market imperfections or to discrimination in the otherwise open, competitive system of earnings determination (Beck et al., 1978). From this perspective, race is considered to operate as a structural variable.
A compound effect of race and sex on women's earnings has been reported by some researchers. Ferman (1974) indicates that:

the startling fact is that on each indicator women fare more poorly than men, even when the race factor is taken into account. Racism has been hypothesized (sic) time and time again as the factor in low wages but our study clearly indicates that, for Detroit at least, sexism reinforces racism and is more important in accounting for the prevalence of low wage incomes (145).

Ferman's study was conducted among low wage workers. It remains to be tested whether sexism reinforces racism at all wage levels. In a study comparing sex and ethnic/racial groups, Tienda et al., (1987) found that for all their models, sex difference in the effects of race and national origin were statistically significant for all possible paired contrasts.

As with sexism and racism, race and geographic background also seem to be related. Being Black in itself implies many disadvantaged situations. Fossett and Galle (1982) indicate that:

Blacks are also more likely to come from families located in the South or in rural areas, single parent families, and large families; family types associated with lower levels of educational attainment. Still, even when the disadvantaged backgrounds of black children are taken into account, their levels of educational attainment are lower than whites (118).

A vicious cycle seems to exist: minorities have fewer incentives to invest in education and training because they expect to experience discrimination in the labor market,
and they are discriminated against because minorities as a group invest less time and money in education and training (Fossett and Galle, 1982). Which is the cause and which is the effect? The question remains a difficult task of measurement.

Reacting to the contention that equalizing education and training for Blacks and Whites will narrow the black-white income gap, Siegel (1965) said:

In any case, such herculean metamorphoses would not eliminate income differentials - for 38.5 percent of the current difference in average earnings of whites and non-whites is apparently independent of the achievement of non-whites! To put it boldly, about two-fifths of the difference on average earnings of whites and non-whites is what it costs to be black (56).

The social class a worker belongs to has also been associated with his/her wages. Social class is one of the most widely used concepts in studies of inequality but it is also one of the most difficult to define and measure (Duberman, 1976). In the Communist Manifesto, Marx and Engels (1970 - originally written in 1847) defined class in terms of the individuals' relations of ownership to the means of production. The bourgeoisie is the class of modern capitalists, owners of the means of social production and employers of wage-labor. The proletariat is the class of modern wage laborers who, having no means of production of their own, are reduced to selling their labor power in order to live. Between the bourgeoisie and the proletariat stands the petite bourgeoisie, owners of small
amounts of capital and limited means of production but who do not hire wage-laborers.

Other definitions of class have been based on relations of authority at the working place rather than relations of ownership. Dahrendorf (1959) for example, in his book *Class Conflict in Industrial Society* defines classes as:

...social conflict groups the determinant of which can be found in the participation in or exclusion from the exercise of authority within any imperatively coordinated association. In this sense, classes differ from other conflict groups which rest on religious, ethnic, or legal differences (38).

Wright (1980) indicates that Dahrendorf (1959) is basing class relations of power on a particular technical organization of production (i.e., authority). To Wright, authority is not the only basis for class division. There are many other variables which divide those involved in production into many conflicting camps, but measures of these dividing variables are not always readily available. Limitations of the data set used for the present study forces us to choose Dahrendorf’s definition of class although we appreciate the value of other authors’ conceptualizations of the variable.

Marxist researchers concerned about economic dualism have brought attention upon the effects of labor market segmentation, percentage female in one’s occupations, and economic sectors on workers’ wages. In the absence of a
measure of authority, variables related to these concepts were included in the present study in an attempt to tap the level of authority held by the respondents in their jobs.

Women's participation in the relations of production differs from that of men's. Whereas many men lack control over the means of production, many hold positions of authority. Women, on the other hand, have less access to higher-level positions and are more likely to lack control over both the means of production and positions of authority. Women's lack of control and authority has been associated with lower wages (Oppenheimer, 1968; Roos, 1981; and Kalleberg et al., 1981). When women do hold higher-level positions, they receive smaller economic returns to authority than do men working under the same conditions (Coverman, 1986). Also, women occupying positions of authority receive smaller economic returns to education and experience than do men (Piore, 1975; Edwards, 1979; and Coverman, 1986).

The job or occupation a person chooses is closely related to societal norms and family socialization. Women tend to choose occupations which are considered "proper" (as defined by family and peers) and which do not fiercely compete with their home responsibilities (Coverman, 1983). Consequently, women are likely to be concentrated in service jobs because many of them offer more flexibility in terms of schedule and number of hours worked (Corcoran,
In terms of sexually segregated occupations, Treiman and Terrell (1975) indicate that:

In consequence, the labor force is and has been very strongly segregated by sex. Moreover, in contrast to men, women are concentrated in a very small number of occupations. In 1970, about half of all working women were in only 20 occupations and no less than 30 percent were either elementary teachers, retail sales, clerks, bookkeepers, waitresses, or "stenographers, typists and secretaries" (57).

Treiman and Terrell (1975) also found that occupations in which males are poorly paid, net of other variables, have higher proportions of women than do other occupations. Oppenheimer (1968) indicates that most female-typed professions and semi-proessions (e.g. nursing, teaching, librarian, secretary) which depend on skilled but cheap labor in fairly large quantities, are associated with traditional women's tasks, most of the training for them is acquired before employment, and career continuity is not essential. She emphasizes that: "It is not that jobs favorable to the employment of women require no skills, but that the skills required can be obtained before employment" (227).

Roos (1981) combined job characteristics (i.e., structural factors) with individuals' characteristics traditionally studied under the human capital and prestige or status attainment theories. She found that the characteristics of jobs into which women tend to concentrate explained 13 per cent of the men-women's income
gap, net of other variables. Results from her study indicate that:

...a nontrivial portion of the earnings gap between men and women is due to women’s concentration in jobs which are low-paying and heavily female and because women are less likely than men to exercise authority in their jobs or to control the means of production (195).

Taylor et al. (1986) interpret the negative effect of percentage female in one’s occupation as a measure of discrimination. They explain that:

significantly negative regression coefficients on percentage female can be regarded as a measure of discrimination. That is, to the extent that workers are paid on the basis of the sex composition of their occupations, rather than on performance of job duties or human capital characteristics, percent female can be regarded as a compensable factor of jobs (113).

While recognizing that most of the measured earnings disparity between men and women arises from the concentration of women in lower-paying jobs, some authors suggest that some jobs may actually pay less because women are concentrated in them (Tienda et al., 1987). Coverman (1986) indicates that:

...on the occupational level, female dominated jobs have lower average salaries than do other occupations. The sex composition of occupations has been shown to affect earnings significantly; net of other characteristics, the percentage of females in an occupation is negatively associated with earnings (143).

Treiman and Terrell (1975) argue that the connection between concentration of females and low wages in a given job category is unclear. They ask, "to what extent are
women limited to such jobs and to what extent does their presence force down wage rates for male workers?" (158).

Jobs have been conceived as divided into two main segments: primary and secondary. Related ideas have been gathered into what we know today as the "dual market" theory (Fiore, 1975; Beck et al., 1978; Edwards, 1979; and Coverman, 1987). This theory purports that each labor segment is characterized by having its own labor market from which it draws members. Edwards (1979) indicates that:

Labor markets constitute the principal means of segmenting the working class, because it is through labor market processes that workers are hired into their various jobs ...Thus, the way the working class is segmented is clear: it is segmented through the operation of segmented labor markets (164).

The dual labor market theory was developed based on results of research conducted in the 1960's about the working experiences of urban blacks and other working poor people. Researchers observed that poor minorities operated in a labor market distinct from that of urban white males (Fiore, 1975; Edwards, 1979; and Coverman, 1986). Labor segment theory focuses on the fundamental differences in the jobs the workers hold rather than on the characteristics of the workers themselves (Beck et al., 1978).

While strengthening the case for the dual or segmented market approach, several subsequent studies suggested some
reformulations of the original dual market theory. These more recent studies have made two important contributions: not only have they shown market outcomes to be different by segment; but more importantly, they have provided evidence that the market processes also differ by segments (Piore, 1975 and Edwards, 1979). Two other important outcomes of the most recent studies on labor segmentation refer to: first, the expansion of the scope of the original theory from a concern with minority or marginal workers to a concern for all workers; and second, the expansion of the primary sector into a higher and a lower tier known as the independent primary and subordinate primary.

According to Piore (1975) the characteristics of work in the independent primary (2), subordinate primary (3), and secondary (4) labor segments are closely related to the sociological distinctions among the middle-, working-, and lower-class subcultures. He believes that the supply of labor for the three segments is rooted in class subcultures and that the demand for each type of labor is rooted in the technology utilized by the employer. Piore also indicates that the trichotomus typology tends to work better when describing male jobs than female jobs, and when describing urban industrial employment than rural and particularly preindustrial labor markets.

Studies indicate that wages associated with secondary work, where most women are concentrated, rank from two-
thirds to four-fifths of the wages for primary jobs (Edwards, 1979). Coverman (1986) argues that based on contemporary research, it seems as if the social relations of control vary, not only by labor market or segment, as Piore (1975) and Edwards (1979) hypothesized, but by sex as well. In her study she found that employment in female-dominated occupations (i.e., 50 percent and over female) was detrimental to wages, particularly to the wages of women working in the secondary sector. She concluded that the fact that women were concentrated into the disadvantaged secondary labor market did little to explain their lower earnings: "It is mainly in interaction with other factors that women's secondary employment is meaningful for understanding their economic attainment" (159). Tienda et al. (1987) found that percentage female in respondent's occupation was negatively related to wage rate, but the negative effect was more detrimental to male workers than to female workers.

The industry in which a person works also makes a difference in the wage he/she receives. Stevenson (1975) found that a significant portion of the male-female earnings gap can be attributed to women's greater concentration in low-profit industries. Dickinson (1974) indicates that the patterns of income attainment by industry are nearly the same for men and women, with the construction industries paying the most and agriculture and
trade the least. She found that the absolute differences in wages by industry were larger for women than for men. Roos (1981) and Coverman (1983) indicate that women tend to concentrate in industries which are both lower-paying and which generate lesser returns to investment than the industries in which men concentrate.

Following theoretical guidelines from economic dualism, industries in advanced capitalist nations have been conceptualized as divided into two main sectors: core and periphery (Bibb and Form, 1977; Beck et al., 1978; Coverman, 1983; Deseran et al., 1984; and Jenkins, 1984). Because of lack of agreement among researchers as to what economic sector should encompass the economic activities undertaken by the government, the theory of industrial or economic segmentation is also presented as including three sectors: that organized by large monopoly capital, that organized by the state, and that organized by competitive capital (O'Connor, 1973 and Hodson, 1978). These sectors are more commonly known as core(5), government(6), and periphery(7). This division of productive sectors is based on the overall dynamics of the accumulation process (i.e., the structure, concentration, and centralization of capital), unionization, and technological change. Economic sectors are prior to and partially determine labor market segments (Hodson, 1978).
O'Connor (1973) estimates that each sector of the economy (i.e., core, government, and periphery) roughly accounts for one third of the U.S. labor force. Taylor et al. (1986) found that the government sector had the highest level of occupational sex (i.e., female) segregation. They attribute this outcome to the high proportion of clerical workers employed by the government.

Taylor et al. (1986) also found that the negative effect of percentage female on earnings was smaller in the periphery for Blacks and women and greater in the government sector for each race/sex group. They explain that:

Indeed, in the government sector in 1980, for each unit increase in percent female in occupations, annual earnings decreased $19 to $30. These findings suggest either that the work performed in female-typed occupations is less profitable and therefore yields lower wages, or that the sex composition of occupations influences the wages employers are willing to pay (121).

The typical human capital linear equation "the better the education, the better the job--hence the better the income" does not necessary apply to the competitive economic sector with its secondary type of jobs, largely held by women (Falk, 1982). In his book Contested Terrain, Edwards (1979) refers to secondary jobs as "dead end jobs," jobs in which:

"neither seniority nor education seems to pay off. And, since employers have little interest in matching workers and their jobs, they feel free to replace or dismiss workers as their needs change (170)."
Each economic sector is thought of as almost having its own mode and relations of production. Each sector structures and partially affects jobs conditions, opportunities, and experiences faced by individual workers (Beck et al., 1978). Hodson (1978:429) believes that "At the most general level, capital sectors structure the manner in which class and occupation determine economic returns."

Hodson (1978) describes the government economic sector as containing a mix of core and periphery characteristics. He sees the government sector as emerging in a dialectical relationship to the development of the monopoly sector of private capital. It is his understanding that "as a participant in the organization of production, the state develops in response to the needs of monopoly capital" (431).

Beck et al. (1978:710) found that the economic position of workers in the peripheral sector is substantially inferior to that of workers in the core. They indicate that: "the marginal probability of a peripheral worker having poverty earnings is more than twice that of the worker in the core." Deseran et al. (1984) found significant positive effects of industrial core sector on husbands' off-farm earnings. Roos (1981) found that employment in peripheral industries accounted for little of the income gap between the sexes.
Kalleberg et al. (1981) measured the effect of economic segmentation and worker power on earnings. They operationalized economic segmentation into five industry-based measures which are usually associated with the core industrial sector: 1) concentration (i.e., the firm’s percentage of sales within the industry), 2) economic scale, 3) capital intensity, 4) state purchases (i.e., percentage of the output sold to the State), and 5) size of the establishment. Of these five industrial characteristics, only concentration seemed to affect women's income positively. State purchases affected women's income negatively. Neither economic scale, capital intensity, or size of the establishment affected women's income or the effect was the same as on men's.

Worker power was operationalized by Kalleberg et al. (1981) in terms of the following workers' attributes: union membership, employer tenure (i.e., time working for same employer), occupation, and class (i.e., authority). All these attributes of worker power were found positively and significantly related to both males' and females' income.

Many female-typed jobs and semi-professions are not unionized or well organized to protect their members (Sokoloff, 1981). Dickinson (1974) found that men who belong to an union earn about $0.30 an hour more than those who did not. Coverman (1983) found a positive relationship between union membership and earnings for men, but not for
women. Coverman (1986) found union membership to have a large significant effect for men's wages but a modestly positive effect on women's wages. Beck et al. (1978) found a positive effect of union on the earnings of both core and periphery workers. Union in their study, was the most important factor in reducing the likelihood of poverty earnings in the periphery sector. Bibb and Form (1977) found that union membership exerts no influence on blue-collar women's earnings.

Summary

The bulk of the literature reviewed in this chapter points to the existence of an income differential between men and women. Personal, family, and structural variables are assumed to be responsible for this difference.

Women seem to receive less economic returns to education, experience (as measured by years in the labor force, length of full time employment, months in present job), weeks worked, and geographic mobility than do men. On the average, women receive lower returns to labor force attachment than do men.

Absenteeism due to illness of family members does not seem to affect women's earnings. Amount of time spent in home labor depresses both women's and men's earnings, but some other family variables affect the sexes differently. For example, number of children negatively affect women's
work achievements while leaving men’s unaltered or affecting them positively. Having young children affects men’s and women’s labor income differently. Pre-school age children affect women’s earnings negatively while leaving men’s earnings unaffected. School-age children do not affect women’s wages but they do affect men’s earnings positively.

Lack of control over the means of production and lack of authority over others has been associated with women’s lower wages. Women working in traditionally women-dominated occupations and in peripheral industries earn less than men and women working in male-typed occupations and in the core industries. Women receive lower economic returns from involvement with a labor union than do men.

The division of labor in the home is reproduced in the labor market. Women tend to concentrate in jobs which perpetuate the traditional sex roles they play in their homes. Service jobs which entail catering to, nurturing of, and supporting others are more likely to be dominated by women and to be under-paid.
NOTES

(1) When doing the preliminary steps toward the analysis of the data for the present study a high collinearity was found between age and years in the labor force. The Pearson correlations for each sample were husbands .9535, single males .9447, wives .6250, and single females .7789. (See tables 4-7 in the Appendix for more information on Pearson correlations). Years in the labor force (i.e., years worked since respondent was 18 years old) was chosen over respondent's age in the present study because length of time in the labor force was considered a better proxy of work experience for both males and females. While age may be a good proxy of work experience for males, it is not a reliable one for females. Age does not reflect the time women may have taken off to raise families and/or put spouses through school and/or work.

(2) Independent primary labor segment: upper tier of the primary labor market. It consists of professional and managerial jobs characterized by higher pay and status, fewer formal work rules, greater variety and initiative than are found in jobs in the other two segments. Required skills in this segment are rather general and career ladders are well defined.

(3) Subordinate primary labor segment: lower tier of the primary labor market. It is composed of middle-level, clerical, and traditional industrial jobs. Jobs in this segment are characterized by relatively good wages and job ladders that develop primarily because of unions (except for some clerical jobs). Required skills in this segment are more specific and routinized than in the independent primary segment.

(4) Secondary labor segment: consists of menial, low-paying jobs with little stability and few opportunities for advancement. Required skills are very specific and usually dictated by or developed to accommodate technology. Employer-worker relationship is personalistic (i.e., based on personal taste) rather than established by a standard code of conduct. For more details on labor segments see Piore (1975), Edwards (1979), and Coverman (1986).

(5) Core industry: (also referred to as "center industry"): large capital intensive oligopolistic firms which practice economies of scale and earn relative high and stable profits. Industries in this sector have the ability to set prices, create markets, control the supply and costs of raw materials, influence the state and pass the cost of production on to the consumers. Capital is
centralized and intensive and markets are national and international. Productivity and wages are high. Workers are unionized and labor unions are strong. These firms are also characterized by open and high promotion ladders and many work fringe benefits.

(6) Government industries: composed of production units organized by the state itself and by state-contracting private units. Competition is generally low. Productivity is questionable and depends on the type of production. The capital/labor ratio also depends on the type of production but it is usually low in the state-organized industries. Wages are medium to high and working conditions are bearable. State workers are highly organized although they often lack the right to strike and other basic rights of unionization guaranteed to private sector workers.

(7) Periphery industries: establishments which have few material and organizational resources. They operate in free markets in which competitors are unable to influence the economic forces affecting them. Wage and price competition are predominant. These firms are typically small, geographically scattered, capital is decentralized, and labor intensive. Uncertain profits, low productivity, and low wages. Workers are seldom unionized. If present, labor unions are weak. Working conditions are poor. Many of these firms can only offer dead-end jobs to the workers. For more details on core and periphery industries see O'Connor (1973), Bibb and Form (1977) and Hodson (1978).
The issue of employment in U.S. society has been studied by sociologists most clearly within the field of social stratification. Two major intellectual currents underlie most theory and research in this area: mainstream sociology and radical sociology. Mainstream sociology is identified with the study of social institutions and the proposition of reforms within the existing social structures whereas radical sociology is identified with the study of social institutions and the proposition of solutions which require thorough changes of the social structures.

Within mainstream sociology, status attainment theory has historically attempted to explain social stratification and social mobility. According to status attainment theorists, tenuously divided or amorphous classes emerge (Nisbet, 1959) as a function of individual mobility in those situations in which the most fit or the best prepared are the most highly rewarded (Davis and Moore, 1966). Social mobility through one's own achievement, rather than social assignment through one's ascribed status, is viewed as both desirable and widespread. Supporters of this theory believe that social and economic
accomplishments are possible within the existing social structures (Davis and Moore, 1966).

Radical theory, the second major intellectual current in social stratification, is identified mainly with the work of Karl Marx. For Marx and his followers, the motivating force in society is the conflict between the owners of the means of production (bourgeoisie) and the workers (proletariat). These groups represent the two major classes in most class societies. Concentration in radical theory is on class conflict as a major social force and on internal contradictions that inevitably produce change. Mobility within the current social system is rarely discussed by Marxists since real mobility or equality is not held possible within existing social institutions in a class society. New social arrangements must emerge so that the majority (the proletariat) can realize true social and economic achievements.

Both mainstream and radical theories were used in this study to explain the wage differential between married males, single males, married women, and single women heads of household included in the study. A mainstream theory (i.e., status attainment) was chosen to explain differences by the individuals’ characteristics; whereas, a Marxist theory (i.e., socialist feminism) was chosen to explain differences by the family and structural characteristics.
Mainstream theories have traditionally explained earnings and employment from the supply side of the market (Blaug, 1976 and Roos, 1981). This explanation of earnings determination derives from a functional approach toward stratification which posits a competitive matching between the functional importance of occupational roles and the skills and training of the workers (Davis and Moore, 1945; Mincer, 1958; Becker, 1975; and Mincer and Polachek, 1978). Marxist theories, on the other hand, have concentrated on explaining earnings and employment from the demand side of the market (i.e., structural or institutional barriers) (Marx, 1967 Vol.1 -originally written in 1867; and Sokoloff, 1981). This explanation of earnings determination derives from a conflict approach toward stratification which posits employers, workers, and economic sectors facing fundamentally different conditions and operating according to fundamentally different rules. Sexual and racial differences in earnings are seen as indicative of systematic forces involving differential opportunity structures which are embedded in the social order (Beck et al., 1978 and Jacobs, 1985).

These two "individualistic" and "structuralistic" schools of thought have traditionally differed in their choice of variables for their models of income determination since each one of them focuses on a different side of the market. In the present study, measures of both
the supply and the demand sides of the market were combined to test the feasibility of a more complex model for the study of men-women wage differentials.

**Status Attainment Theory**

Much of the discussion of earnings centers on the determinants of the supply side of the labor market (Dickinson, 1974). Following this tradition, personal variables included in this study represent individuals' characteristics which are assumed to shape the supply of labor. These characteristics represent decisions made by the individuals and/or their families at different points of their lives.

When defining status attainment theory, Sokoloff (1981) says that:

> status attainment theory depends on the Weberian concept of social status. This concept ranks all occupations in relation to one another on the basis of culturally valued criteria. It assumes that a single labor market exists in which men and women from the same and different backgrounds compete with one another for the available jobs. This competition grows out of the productivity characteristics people bring with them to the existing job structure, primarily their education, training, and sex role socialization (20).

Falk and Cosby (1975:308) explain that "status attainment research represents the search for intervening influences as well as current circumstances." Status attainment research has been concerned particularly with studies of occupational choice and social mobility (Davis and Moore,
1966). The latter measures the extent to which the social system is open or closed. One of the main ways in which status attainment theory looks at achievement in U.S. society is through intergenerational social mobility. Although occupational mobility is the issue most frequently studied within the status attainment perspective, education, income, general prestige, and socioeconomic status have sometimes been explored.

There are three main assumptions of the status attainment theory regarding occupational status. First, men and women derive the same prestige or status from their occupations. Second, there is a single labor market in which men and women compete equally. Third, there is a single hierarchy of occupational statuses to be ranked according to their prestige in the community and larger society (Davis and Moore, 1966).

Status attainment theorists support the idea that men and women receive equal rewards for equal input into the labor market via their education. Consequently, they conclude that men and women with the same educational requirements achieve the same occupational status in the labor market (Becker, 1975). It should be noted that when status attainment theorists say "equal rewards for equal input into the labor market", they refer to moral and emotional rewards (i.e., prestige), rather than economic rewards. Status attainment theorists generally
accept the idea that although men and women may be equal in status, their wage income is frequently different (Becker, 1975).

Status attainment theory does not question the structure of occupations or the nature of work itself. It provides little insight into the nature of existing constraints both institutional and societal on workers' accessibility to positions in the structure of occupations (Roos, 1981). This theory's main focus is on how people find their ways into the different occupations available at any one point in time or over time in comparison with their parents' occupations (fathers' in particular) and what personal and/or family factors were most influential in the process (Falk and Cosby, 1975). Sokoloff (1981) argues that to use this theory without focusing on the larger structures within which it operates makes the theory a very partial one.

As stated in Chapter I, research within the status attainment perspective was originated by males and was applied to male populations (white males, to be more specific) (Beck et al., 1978). While most studies have dealt with male occupations and continue to do so, the same approach has been applied to women recently although not with the same degree of success. Acock and Edwards (1982) point out two problems related to attainment models applied to women: first, the assumption in earlier research that
the female attainment process was similar, if not identical, to that of the male; and second, and as a consequence, researchers ignored or discounted the complexity of the attainment process for females. Same as studies of male attainment, studies of female attainment indicate socioeconomic origins to be less important than education to one's status attainment (Sokoloff, 1981).

The second and third assumptions of the status attainment theory regarding a single labor market and a single hierarchy of occupations for men and women are questionable when applied to the U.S. labor market. Dickinson (1974:128) argues that "historically, women have faced a very different labor market than men, and although there have been changes in recent years, many variables still have a different effect for men than for women."

Regarding sex segmentation, Stevenson (1975) found that in the U.S. men and women are segregated by industry as well as by occupation. She concludes that sex segmentation lowers women's wages by "crowding" women into a limited number of occupations.

The author finds Dickinson's and Stevenson's descriptions of the U.S. labor market realistic and representative of American women's work experience. Consequently, following their research models, the determinants of wage rate in the present study were estimated separately for males and females as well as for
married and single heads of household.

It is evident that despite the status attainment theorists’ assumption that occupational status equality exists, women are seriously discriminated against in terms of the income derived from the statuses they are supposed to have similar to men’s. Referring to this issue, Sokoloff (1981) asks,

in what way is it meaningful to say that women get the same status jobs as men when they do not work in the exact same jobs and do not get paid the same as men when they do work in the same jobs? (24)

Women’s inequality in the labor force has been one of the major grounds on which status attainment theory has been criticized. It is argued that discrimination against women denies the entire process by which achievement is supposed to occur. Since women are as well educated as men but receive lower wages, the status attainment tenet that the individual’s characteristics determine his/her earnings does not hold. Another criticism centers on the role assigned to education as a means for equalizing opportunities for the masses of Americans.

A false derivation from this approach is that those who do not achieve highly within the present status hierarchies are responsible for their own performance. This reasoning process has been rejected because of its "blaming the victim" implications. Blame falls on the individual rather than on the larger socio-political,
economic, and sexual systems of society (Beck et al., 1978 and Sokoloff, 1981). The most common criticism refers to the central place accorded to occupation in status attainment modeling (Sokoloff, 1981).

Several influential frameworks within the status attainment theory have dealt with the individual's position in the labor market. From among these perspectives, the human capital framework developed by economists was deemed the most helpful to the purpose of this study. The focus of human capital research has been on income rather than on occupational status or occupation mobility (Mincer, 1958; Schultz, 1962; Mincer, 1970; Becker, 1975; and Blaug, 1976).

Human Capital Theory

According to the human capital theory, individuals and families make decisions related to their human capital investment to maximize their utility and/or well-being. Human capital investment includes health, education, job search, information retrieval, migration, in-service training as well as choices among occupations. Thus, the distribution of economic benefits among individuals in our society can largely be explained in terms of the distribution of returns to investment in human capital (Blaug, 1976; and Fleisher and Kniesner, 1984).
One of the main pillars of the human capital theory is the neoclassical economic principle of marginal productivity of labor. According to this principle there is free competition among the firms for labor skills and a price is guaranteed for various types of labor. Wages are determined by the unique increment that each worker adds to the firm's total revenue. In this sense, the dispersion in workers' earnings is due to their unequal investment in human capital. Different investments in human capital reflect in the dispersion in years of schooling and work experience which in turn affect wages (Mincer, 1958; Schultz, 1962; Becker, 1975; and Mincer and Polachek, 1978).

The human capital theory was born early in the sixties (Blaug, 1976). Recent years have witnessed intensive concern with and research on investment in human capital. These studies rest on the proposition that people enhance their capabilities as producers and as consumers by investing in themselves. As originally formulated by Schultz (1962), Becker (1964), and Mincer (1962), the human capital theory is characterized by a "methodological individualism," a view which purports that all social phenomena should be traced back to their foundation in individual behavior.

The human capital theory may be considered the same as the status attainment theory with the only difference being
that it focuses on income rather than on status or prestige as the main dependent variable. The human capital theory was developed by economists but it builds on the same two major tenets of the status attainment theory: 1) socioeconomic origins are less important than education in one's status attainment, and 2) the individual's characteristics determine his/her position in the labor market (Becker, 1975).

A basic assumption of the human capital theory is that the structure of wages and salaries is primarily determined by investment in human capital (Schultz, 1962). Regarding individual's income differentials, Fleisher and Kniesner (1984) explain that:

Individual workers earn different amounts because they have acquired different skills and different amounts of training, have completed different amounts of schooling, have made decisions to move from one labor market to another, have different endowments of ability and vary in health and strength. ...clearly, such long-run labor supply decisions are extremely important determinants of individual and family economic welfare (287).

Following this theory, one concludes that any person or group earning less than another must have invested less in human capital. Mincer (1970) indicates that some of the differences between earnings distributions of males and females are explained as the effects of labor supply behavior on human capital investment decisions. In other words, if women earn less than men it must be because they (women) have made the "wrong decisions" about education,
training, health, and so on. Another human capital
explanation for men-women income differentials, net of
other variables, is that women receive less return to their
human capital investment than men. Society rewards women
and men differently even though they may have similar job
qualifications. To this effect, Fossett and Galle (1982)
indicate that:

We are more inclined, however, to think that the
major factors affecting black-white and
male-female differences in economic attainment are
to be found in the organization and operation of
the labor market, not in the characteristics
blacks and women bring to the labor market (124).

Stevenson (1975) tested the labor capital theory and
found that men and women who worked in jobs requiring the
same amount of education and training (conditions of human
capital theory) did not work in the same occupational
group, but rather in another one with the same education,
training, and skills requirements. She also found that men
and women usually did not work in the same industry and
were not paid equally—women were paid less than men. The
reason for this, according to Stevenson, is that industries
employing women tend to be less profitable and have less
market power than those employing men—regardless of the
individual's educational attainment. Stevenson's findings
point to the existence of a sex segregated job market.

The human capital approach has been questioned by
researchers from within and outside the fields of economics
and sociology. Data provided in the U.S. National Academy
of Science's twelfth report (1980) presents a challenge to the validity of the human capital approach. The report indicates that a significant portion of the national wage gap between the sexes is due to sex discrimination rather than to individuals' characteristics. Evidence from this report suggests that only a small part of the earnings difference between men and women can be accounted for by differences in education, labor force experience, labor force commitment, or other human capital factors believed to contribute to productivity differences among workers.

Sokoloff (1981) indicates that a careful analysis of worker characteristics (education, training, number of hours worked, and the number of years worked) shows that they only explain 44 percent of the variation between men and women. The earnings function is a more complex phenomenon than supporters of the human capital theory would have us believe. Blaug (1975) has pointed out the weakness of the human capital approach in terms of its simplicity and one sidedness (i.e., supply side of the market). He says,

Despite the fact that no one has so far succeeded in specifying and testing the simultaneous demand and supply equations that generate the earnings function, without which empirical work on earnings function amounts to little more than trying to walk on one leg (845).

The following variables related to human capital theory were included in the present study. They represent individual basic characteristics responsible for shaping
the supply of labor available at any given time.

**Personal Variables:**

1) Education

2) Years in the labor force

3) Full time employment

4) Tenure (i.e., months with present employer)

5) Number of weeks worked in 1982

6) Geographic mobility

Because these variables, alone, do not explain why men and women, single or married receive different wages, other variables explained by Marxist theories were deemed necessary. The present study attempted to overcome the weakness of the human capital approach by including both supply side and demand side variables in the model designed to explain wage differentials by sex and marital status.

**Marxist Theory**

While status attainment theorists stress the equality of opportunities in the labor market, radical theorists argue that the social arrangements in our society severely disadvantage women when competing with men for paid jobs. When explaining the role of women in the labor force, radical researchers stress family and structural variables which mainstream researchers take for granted or fail to include in their models (Sokoloff, 1981).
Most Marxist theorizing on women in the labor force represents extensions, modifications, and/or applications of Marx’s methodological tools and theories. The dialectical method which stresses the movement that comes out of contradiction was widely used by Marx and passed on to his followers. One of Marx’s theories which has recently been extended, modified, and applied to the understanding of women in the labor force is the labor theory of value. According to this theory, labor is ultimately the source of all value. Marx’s thesis in this theory is that human labor is the only commodity that is worth more after it is bought than before (Marx, 1967 Vol.1).

A worker’s labor contains two elements: necessary labor and surplus labor. Following Marx’s thinking, a worker is really paid according to the amount of time required to ensure his/her return to the job the next day. This is necessary labor. Surplus labor is the amount of time the worker works beyond the time needed to reproduce him/herself. Since workers are paid only enough to reproduce themselves, the extra (i.e., surplus labor) is appropriated by the capitalist. Surplus labor produces commodities which translate into surplus value or profit. Socially necessary labor is an aggregate of all the labor power in society. It represents an average of the labor time spent by workers in self-reproduction (Marx, 1967
Other extensions of Marx's ideas are found in the labor segmentation theory (Piore, 1975 and Edwards, 1979) and the industrial segmentation theory (O'Connor, 1973 and Hodson, 1978). Both these theories are underpinnings of Marx's concern with the development of capitalism. When explaining individual's accomplishments, contributors of the labor segmentation theory and the industrial segmentation (i.e., economic sectors) theory are more concerned with the form of the economy than with workers' personal characteristics. Their focus is clearly on class rather than on prestige hierarchy or status. They reason that at the present stage of monopoly capitalism, when more and more people are becoming workers and less and less are becoming owners, it makes more sense to devote attention to the social structures affecting the labor and production markets. Labor and industrial segmentation theorists recognize the effect of workers characteristics on employment patterns, but they emphasize the effects of structural variables on employment outcomes.

Although women were actively involved in the labor force when Marx wrote his economic treatises, the idea of women as social and creative beings was not adequately developed in his theory. Feminists in the Marxist tradition have been responsible for developing this neglected aspect of Marxist theory.
Marx and Engels and the "Women Question"

Throughout his analysis of class societies and social relations of production, Marx never deals with women as a separate group. He sees women as regular workers. For him, women who work in the labor force are producers of surplus value in a manner similar to men. In other words, Marx's categories of social classes are sex-blind or gender-neutral.

Although Marx did not address the "women question" directly, his contributions to more recent theories of women in the labor force are invaluable. First, he provides a much needed context and totality to the analysis of women's position in U.S. society that is missing from other sociological theories. Second, he emphasizes the importance of a materialist methodology that is both historical and dialectical to examine contemporary relations among groups of people in capitalist society. An elaboration of concerns and application of insights from Marxist methodology to an understanding of women in contemporary U.S. society creates the conditions for the development of a new level of analysis not available in Marx's time (Eisenstein, 1979).

We may not have inherited concern for women's issues from Marx, but we definitely inherited important methodological tools to analyze and interpret women's problems in the labor force today. Some Marxists see
women's problems as arising from their status as mere instruments of reproduction. Their solution to such problems is social revolution and socialization of housework which will free women from all but a minimum of family tasks. Relieved from housework, women could dedicate entirely to social or productive labor and to enlightening and/or entertaining activities (Lenin, 1951; Benston, 1969; Engels, 1972; and Reed, 1972).

This has not necessarily been the outcome in countries like the U.S.S.R. where social revolutions have taken place and where some of the housework has been socialized. In that country, women still do most of the housework and their position in the labor force remains secondary to men's. Evidently, social revolution and socialization of housework are not the overarching solutions to women's oppression. Something else is missing in the socialist theory and practice toward the equalization of men's and women's work. The missing element is the sexual division of labor which reflects the structure of power in society. This link is to be added by feminists in the Marxist tradition in their theories of women in the labor force in patriarchal capitalist societies. The link between the social and sexual division of labor travels under the name of socialist feminism and has been gaining momentum since the early sixties (Eisenstein, 1979).
Origins of Socialist Feminism

Marx’s work is basically a critique of the social division of labor rather than the sexual division of production and reproduction. Nevertheless, the same theory that he applied to class relations is now being used, with certain modifications, to explain the development of sexual relations in a class society (Eisenstein, 1979).

Framing women’s position within the historical material relations of production in society forces one to go beyond mainstream social science theorizing. It changes one’s focus from asking questions about occupational mobility within existing structures to asking how occupational stratification interacts with the political economy and its supporting ideologies (Sokoloff, 1981).

Engels was more sensitive than Marx to the problems of women both in the home and in the labor force. In his book "The Origin of the Family, Private Property and the State" (Engels, 1972 -originally written in 1884), Engels recognized that in the home the man represents the bourgeoisie whereas the woman represents the proletariat. Unfortunately, Engels did not use the same categories outside the family and in his analyses of the labor market. Here, evidently, people are assigned class positions according to their relations to the means of production, not in relation to their sex. Assuming that the "male=bourgeoisie" and "woman=proletariat" categories were

...
built on the basis of power, there is no reason why the same categories cannot be used in the analysis of the labor market.

Contrary to Marx, Engels (1972) acknowledges the problem of women's existence within the private domestic sphere which is outside and opposed to social production. Engels sees women's problems in the home as reflective of the relations of production rooted in private property. He fails to realize, though, that women's reproductive labor (i.e., production and maintenance of present and future workers) limits her activity in social production and determines her position in the labor market.

Part of Engels' nearsightedness is due to the fact that he departs from the simple equation that oppression equals exploitation. In Marx's terms, oppression is a result of capitalist organization and is based on the lack of power or control. It is reflected in the hierarchical sexual, racial, social, and economic organization of a class society. Exploitation, on the other hand, refers to appropriation of the worker's surplus labor by the capitalists. Although oppression is inclusive of exploitation, they are not the same (Marx, 1967, Vol.1). An unemployed woman can be oppressed without necessarily being exploited in the sense that she is not having her surplus labor appropriated by a capitalist. A working woman, by definition, is both oppressed and exploited. By
equating oppression to exploitation, while emphasizing the latter, Engels lost sight of women's problems resulting from their sex, race, social, and economic conditions.

The consequences of equating oppression to exploitation show up more than once in Engels' (1972) analysis of women's problems. For example, although he recognized that the family conceals domestic slavery, he believed that women's domestic slavery within the home was no different from the husband's wage-slavery. To Engels, both types of slavery were derived from capitalism. What Engels failed to understand here was that whereas the husband is free to sell his wage-slavery, (i.e., labor), and gets paid for it, the wife is not as free to sell hers because of family constraints (Eisenstein, 1979). Despite flaws in Engels' addressing of the "women question," his contribution to feminist thinking are many and important.

Both Marx and Engels accepted the division of labor operating in the family. They spoke of such division as "natural" (1) without indicating whether natural meant "necessary" or "good". In their early writings Marx and Engels (1947) indicated that the division of labor within the family shapes the surrounding society. But later on (Engels, 1972), they recognized that the family in turn is also reflective of the economic society which defines and surrounds it. To this effect, Eisenstein (1979) indicates that:
this reciprocal relationship between family and society, production and reproduction, defines the life of women. The study of women’s oppression, then, must deal with both sexual and economic material conditions if we are to understand oppression rather than merely understand economic exploitation. The historical materialistic method must be extended to incorporate women’s relations to the sexual division of labor and society as producers and reproducers as well as to incorporate the ideological formulation of this relationship (15).

Another reason for looking at the family and the labor market for understanding women’s market position is that both institutions (i.e., family and market) are determined by the mode of production. The dominant ideology and material conditions of a mode of production determine all social relations and institutions in a society (Marx and Engels, 1947). The patriarchal ideology and related socioeconomic conditions which preceded and evolved with capitalism have shaped the monogamous nuclear family in which mothering is a full-time responsibility for women (Engels, 1972). These responsibilities affect women’s work activities.

Despite the incompleteness of Engels' (1972) response to the "women question," the outstanding merit of his work was to show the historical causes behind the catastrophic downfall of women and thereby illuminating the path to follow toward women’s emancipation (Engels, 1972 and Reed, 1972). To this effect, Sokoloff (1981) indicates that:
While Marx and Engels have been criticized for their anthropology..., and understanding of the rise of patriarchy (especially as a defeat of matriarchy), the fact that family structure, sexuality and gender obligations vary in conjunction with variations in the material base of society has never been disputed. Most important, their work establishes the importance of women's oppression as a problem of history, in relation to the material conditions of production, rather than of biology, philosophy or religion (120).

The Origins of Women's Oppression

In Marxist terms, the material conditions define necessary ideologies and ideologies in turn have impact on reality and alter the material conditions (Marx and Engels, 1947). The material basis of women's inferior status lies in the fact that in a society in which money determines value, women constitute a group who works primarily outside the money economy (Benston, 1969). The following is a three-step summary of the historical and worldwide downfall of women according to Engels (1972).

Step 1: women were not always the oppressed or "second sex." Anthropological studies demonstrate that during ninety-eight percent of human history (i.e., savage and barbarian stages), women enjoyed equal, sometimes even better, treatment than men. Women's oppression is a feature of civilized society which only accounts for the latter two percent of human history.

Step 2: the downfall of women is concomitant to the breakup of the matriarchal clan commune and its replacement
by class-biased society with its accompanying institutions of the patriarchal family, private property, and state power.

The key factor in the degradation of women becomes evident if one analyzes the transition of humankind from a hunting and food gathering economy to a far higher mode of production based on agriculture, stock-raising, and urban crafts. As these activities became profitable, they "happened" to be adopted and "claimed" by men. Men may have gained control over economically gainful activities because, free from childbearing and child rearing limitations, they could go to the market to sell the wares. Cavin (1985), in her book Lesbian Origins, explains men's control over the material benefits of production as the result of surplus (i.e., exchangeable commodities produced beyond subsistence needs) first arising within husbandry. In many primitive societies she studied, men tended to take care of large animals around and away from home while women took care of agriculture, small animals, and children around the house. Since men were responsible for the livestock, once there was a surplus in its production, they were first to seize it.

According to Engels (1972), monogamous family was instituted to serve men's needs. Through monogamous marriage, the husband acquires complete control of the wife and is thus assured of legitimate sons to inherit his
wealth.

Step 3: the family wage which constitutes a feature of the industrialization period has managed to stay with us until the present time. When child-labor regulations were passed in England and later in the U.S., women were "encouraged" to stay home and take care of the children. The family wage emerges to provide a man with a wage sufficient to allow the women to stay home taking care of the family rather than having each individual family member out at work (Land, 1982 and Ehrenreich, 1983). The family wage becomes, thus, the cornerstone of the present division of labor and the key shaping factor of the American family as we know it today. Conflicts between patriarchy and capitalism seem to have been settled through the family wage which in turn cemented the identity of women and nature and her "natural" role in the family.

Although the idea of a family wage was conceived in the late nineteenth and early twentieth centuries, when men were main providers, men are still paid family wages even though they may not have families to support. Women, on the other hand, rarely ever receive a family wage, even if they are the heads of their households (Sokoloff, 1981). The ideology of "man as main provider" and "woman as supplemental earner" is still vividly with us.

Anthropologists may disagree on the degree of women's autonomy in precapitalist society but, they all agree that
with the rise of civilization and the state, women as a social group became increasingly subjugated to the male heads of their households (Sokoloff, 1981). Most written history of civilization (no more than a few thousand years) depicts women as being dominated by men. The degradation of women has been a permanent feature of all stages of class society, from slavery through feudalism to capitalism (Engels, 1972).

It should be noted, however, that the present inferior status of the female sex is not the result of biological makeup or the fact that women bear children. Child-bearing was no handicap in the primitive commune. It became a handicap with the rise of the nuclear family as we know it today in which child care and family maintenance become the responsibility of the woman within each family unit. Although women were mothers before industrial capitalism, this was by no means an exclusive role. It was industrial capitalism and the family wage which turned women into dependent housewives (Eisenstein, 1979). The role of women in the patriarchal, capitalist, monogamous family is to produce and reproduce labor power. Women's main tasks are those of consumption and maintenance workers. In so doing, they produce and reproduce the social relations of production and of patriarchy (Sokoloff, 1981).

Socialist feminism is a theoretical approach to women in the labor force. It is the synthesis of two apparently
different theories: early Marxist feminism, based on the social division of production; and radical feminism, based on the sexual division of reproduction. Socialist feminism develops concepts slighted by Marx, Engels and other Marxists, while keeping Marx's classical methodological tools and analytical thinking (Eisenstein, 1979 and Sokoloff, 1981).

Women as a class

Early Marxist feminist analysis takes up where Marx, Engels, and traditional followers' analysis stops. The two main goals of this group of thinkers is to change the terms on which women's home labor is analyzed and to bring women into the analysis of capital. Early Marxist feminists pointed out that instead of simply doing consumption work for the individual man in the family, women in the home are doing economically essential work for capitalism itself. Women's work is "congealed" in the labor that men and women bring to the labor market and which they exchange for wages with the capitalist. Necessary labor pays for commodities needed for reproduction but it does not pay for women's reproductive labor (Benston, 1969 and Reed, 1972).

Early Marxist feminists contributed to the understanding of women in the labor force in three ways. First, by demonstrating the vital economic contributions that women in the home make to capitalism (Benston, 1969); second, by indicating that without women's home labor, as
constructed by capitalism, profit is not possible (Cox and Federici, 1976); and third, by concluding that women’s unwaged labor in the patriarchal home, as constructed by capitalism, is vital to an understanding of women’s disadvantaged place in the labor market today. According to this view, home and market are intimately connected (Benston, 1969). Sokoloff (1981) estimates this last contribution to be perhaps the most crucial one made by the early Marxist feminists.

Two tendencies developed within early Marxist feminism: orthodox Marxist feminism and housework Marxist feminism. Orthodox Marxist feminist analysis of women in the labor force is a direct extension of classical marxism and revolves around the fact that women’s home labor is outside market production although it produces use values for home consumption. Orthodox Marxist feminists advocate women’s incorporation into the labor force and socialization of housework as prior steps toward women’s development of working-class consciousness (Benston, 1969 and Reed, 1972).

Housework Marxist feminists, on the other hand, reject the idea that women’s work is unproductive of surplus value. Instead they developed a broader conception of production which includes both the public and the private sectors. Housework Marxist feminists demand wages or payment for housework and suggest that since all women are
defined by their reproductive and homemaking functions in capitalism, they should organize and assert themselves against capitalist oppression (Cox and Federici, 1976).

**Woman as Sex**

For another group of Marxist feminists, sexual, not economic, power seems to be the central issue to any large and meaningful revolutionary analysis (Firestone, 1971). Radical feminism is the Marxist perspective which has openly dealt with the concept of power struggle between the sexes. Within this perspective, the battle lines are drawn between men and women, rather than between bourgeoisie and proletariat, and the determining relations are of reproduction, not production.

According to radical feminists, patriarchy, rather than capitalism, is women's main enemy. Patriarchy is defined as "a sexual system of power in which the male possesses superior power and economic privilege" (Eisenstein, 1979:17). Although patriarchy has changed and adapted to the different class systems, its basic relations of power have remained the same. The family, through the sexual division of labor, and society preserve and reproduce patriarchy. This sexual hierarchy of power is rooted in biology rather than in economics or history and it manifests itself through male force and control of resources. Women's reproductive capabilities constitute the roots of patriarchy (Hartman, 1981).
In radical Marxist thinking, women's position in the power hierarchy is defined "not in terms of the economic class structure but in terms of the patriarchal organization of society" (Eisenstein, 1979:17). Eisenstein (1979) indicates that with radical feminist analysis, the dichotomy between the personal and the public is bridged. She explains that:

Sex as the personal becomes political as well, and women share their position of oppression because of the very sexual politics of the society. The structuring of society through the sexual division limits the activities, work, desires, and aspirations of women. "Sex is a status category with political implications" (17-18).

As important and contributing as radical feminist analysis has been, it fails in its attempt to correct the one dimensionality of Marxist analysis of power. Radical feminists simply put sex where early Marxist feminists had economic class in the dialectical analysis of power and its implications on working women. The problem with the radical feminist analysis of power is that it makes the woman's body the defining criterion of her existence. In her critique of radical feminism, Eisenstein (1979) indicates that:

While clearly sexuality is the unique oppression of women, this does not mean that it encompasses the totality of her situation or that it can express the full dimensions of human potentiality. It says what is different about women, but it doesn't connect women to the general structure of power. It cannot explain the complexity of power relationships in our society (19).
Radical feminism is the most recent tendency within Marxist theory. Supporters of the tendency have developed and refined their theories since the early 1970's but their unifying thread continues to be their concept of sex class as primary to understanding the relations of power. But, as in the case of classical Marxists and early Marxist feminists, the claims of the radical feminists remain reformist since they fail to make the necessary connections between sexual oppression, the sexual division of labor, and the economic structure.

**Socialist Feminism: Women as a Class and as a Sex.**

Socialist feminism represents a synthesis of opposing early Marxist feminist theories of the social division of labor and radical feminist theories of the sexual reproduction of labor. Socialist feminists analyze power in terms of its class origins and its patriarchal roots.

Supporters of socialist feminism argue that in such an analysis, capitalism and patriarchy are seen as neither autonomous systems nor as identical. They are mutually dependent (Eisenstein, 1979). Socialist feminists try to demonstrate that it is the material and ideological bases of capitalism and patriarchy and their mutually reinforcing dialectical relations that provide the greatest understanding of women's inferior position. Only by evaluating this two-way relationship can one begin to understand women's activity in the labor market of
contemporary U.S. society (Sokoloff, 1981). Socialist feminism is a necessary first step in formulating a cohesive socialist feminist political theory of power struggle between different groups in society.

The family and structural characteristics in this study include the following variables. They are associated with family, social, and economic constraints which affect employment patterns. The structural variables are indicators of employment demand and working conditions.

**Family Variables**

7) Housework
8) Number of children in the house
9) Children under five
10) Absenteeism from work due to illness of a family member

**Structural Variables**

11) Race
12) Geographic background
13) Labor segment
14) Percentage female in respondent's occupation
15) Economic Sector
16) Union membership
17) Union status of the job
Explanatory Model

This study’s model includes several independent variables which previous studies have denoted as important predictors of women’s and men’s economic attainment (Duncan et al., 1972; Coverman, 1983; and Jenkins, 1985). The main focus is on sex and marital status and how they explain the men-women income gap. The measured differences between the factors affecting men’s and women’s hourly wages are considered indicators of sexual discrimination against women and inequality in the labor market. In other words, the difference in the effects of the factors related to hourly wages are regarded as estimates of what it costs to be a woman in the labor market.

Income from labor is a result of three distinct factors: a) the wage rate a person earns, b) the hours a person is willing and able to devote to work and work-related activities (Dickinson, 1974), and c) the nature of the work and the industry in which a person is engaged. Variables included in this study were selected to measure these three factors.

Basic Assumptions of the model

1. Personal variables and family variables affect the individual’s marginal productivity of labor, which in turn affects earnings. Consequently, personal and family factors affect earnings.
2. Family responsibilities affect women's work behavior differently than they affect men's. In our society women are responsible for childbearing, child rearing, "husband rearing," and the maintenance of the home. These responsibilities limit the time and energy women can devote to work and work-related activities.

3. Workers have some degree of control over the personal and family variables included in the model. Degree of control varies with the nature of the variable.

4. Structural variables affect individuals' earnings.

5. Workers have little or no control over structural variables. For example, they have little control over the labor segment barriers or gates which make their entry difficult. They have no control over structural variables such as union status of the job, percentage female in the occupation, and economic sector. Workers lack control over the ascribed variables sex and race and the situational variable geographic background.

6. The amount of control the individual has over the variables is constrained by society and family circumstances.

**Hypotheses and Their Explanations**

The following hypotheses were formulated to test how well the variables included in the model contributed to the explanation of income differentials between married,
single, male, and female heads of household included in the study. It was hypothesized that the measured variables affect men and women differently. Variables related to the personal and structural characteristics were expected to affect men's wage rate to a greater extent than women's. Variables related to family responsibilities were expected to affect women's wage rate to a greater extent than men's. Family-related variables were expected to affect single females' and wife's wage rate differently.

H₁: The positive effect of years of education on wage rate is greater for males than for females. Although education remains the major criterion for allocating men and women into different occupations, women receive less economic returns to years of education regardless of the occupation. Consequently, the positive effect of education on wage rate was expected to be greater for males.

H₂: The positive effect of seniority (as measured by years in the labor force, length of full time employment, and months with present employer) on wage rate is greater for males than for females. Years in the labor force, length of full time employment, and length of employment with present employer are seen by employers as indicators of workers' attachment to the labor force and/or work experience. Since women receive lower returns to labor force attachment and work experience than men, the positive effect of seniority on wage rate was expected to be greater.
for males.

Years in the labor force is positively related to wage rate. The longer the person stays in the labor force the more experienced and adapted to working demands he/she becomes. Experience enhances human capital which in turn affects earnings. Women’s economic return to experience is lower than men’s. Therefore, the effect of years in the labor force on wage rate was expected to be greater for men.

Full time employment is positively related to wage rate. Full time employment is considered by employers as an indicator of labor force attachment. Men are more likely to engage in occupations which require full time employment. Since women receive less economic return to labor force attachment (a proxy for experience), the effect of full time employment on wage rate was expected to be greater for men.

Tenure, as measured by months in the present job, is positively related to wage rate. The longer the person stays with a firm, the more familiar he/she becomes with that firm’s operations. It is also more likely that he/she would have received firm-specific on-the-job training. Firm-specific knowledge affects the probabilities of salary raises and promotions. Because women are more likely to be drawn away from the labor force by family responsibilities, they might miss or be denied on-the-job training which
leads to pay-raise, promotion opportunities, and higher wages. Since women receive less economic return to tenure, the effect of tenure (i.e., months with the firm) on wage rate was expected to be greater for men.

Hs: The positive effect of weeks worked in 1982 on wage rate is greater for husbands than for wives. Number of weeks worked a year is a indicator of a person's attachment or commitment to the labor force. Since males receive greater returns to labor force attachment than females do, it was hypothesized that the rate of returns to weeks worked in 1982 was greater for husbands than for wives.

H*: The positive effect of geographic mobility on wage rate is greater for husbands than for wives. When a dead-end point is reached in the firm's occupational ladder, the individual must move out of the firm, and sometimes out of town, in order to achieve higher economic rewards. Family duties make women less mobile or more hesitant to a job-related move. This sedentary condition might deny or force women to miss good job opportunities offering higher wage rates. Moving somewhere else to take a job is a type of investment in human capital. Since women receive lower returns to investments in human capital than men, a job-related move was expected to have a greater positive effect on males' wage rate.
H₀: The effect of number of children on wage rate is not significant for any of the two groups of females.

Having children living in the house affects women’s participation in the labor force. Those women who decide to work arrange their family schedules the best they can to reduce the friction between market- and home-work. Working women also develop relatives and friends network from which they can receive child care assistance. Those who can afford it, pay for child care. Employers are slowly starting to provide child care for working women. Because number of children do not affect the labor force commitment of working women, the number of children present in the house was not expected to negatively affect the wage rate of any of the groups of females included in the study.

H₁: The negative effect of number of children under five on wage rate is greater for females than for males.

Young children require more attention, care, and energy than school age children. Infants and very young children have traditionally been cared for by their mothers. Since women are taught to put their families before work, they tend to devote more time and energy to home labor than to market labor when a choice has to be made. Because women might devote or be perceived as devoting less time and energy to work-related activities, having young children was expected to have a greater negative effect on females’ than on males’ wage rate.
$H_0$: The negative effect of number of children under five on wage rate is greater for single females than for wives. Single females are more likely to be primarily responsible for the care of their youngsters. Child rearing might reduce or be perceived as reducing both single women's attachment to the labor force and the probability of engagement in work-related activities. Because having children under five might conflict with single females' contribution to the work force, it was hypothesized that the number of children under five would have a greater negative effect on single females' wage rate than on wife's.

$H_0$: The negative effect of weekly hours of housework on wage rate is greater for females than for males. The more time devoted to home labor the less leisure, and the less time and energy left to spend at work. The traditional division of labor in the home affects women's performance in the labor force and their economic attainment. Because women usually do most of the housework, it was expected that the negative effect of weekly hours of housework on wage rate was greater for females than for males.

$H_0$: The negative effect of weekly hours of housework on wage rate is greater for wives than for single females. Most wives have to care not only for their children but also for their husbands. Therefore, their housework burden
is heavier than that of single females. Consequently, it was expected that the negative effect of housework on wage rate was greater for wives than for single females.

\(H_{10}: \text{The negative effect of absenteeism on wage rate is greater for females than for males.}\) Absenteeism from work to care for sick family members may reduce the likelihood of participating in on-the-job training and/or work-related activities which in turn affect labor income. Absenteeism also reduces work benefits and privileges only accrued to those with good attendance records. Women's absenteeism might also be seen as lack of labor force attachment. Given that women are more likely to take time off to care for sick family members, the negative effect of absenteeism on wage rate was expected to be greater for females than for males.

\(H_{11}: \text{The negative effect of absenteeism on wage rate is greater for single females than wives.}\) Because single females are more likely to be primarily responsible for family care, they are more likely to take time off in the event of a sickness in the family. Consequently, the negative effect of absenteeism on wage rate was expected to be greater for single females than for wives.

\(H_{12}: \text{The positive effect of race on wage rate is greater for males than for females.}\) People of color, regardless of sex, have traditionally been racially/ethnically discriminated against in the labor
market. The negative effect of being a woman overrides any positive economic return white woman may receive because of their race. Because white men benefit both from their sex and from their race, the white husbands included in this study were expected to receive a higher economic returns to their racial attribute than were single females and wives.

**H13:** The positive effect of geographic background on wage rate is equally significant for husbands and single females. Persons who have grown up in rural areas are more likely to have less and lower quality education and job information than their urban counterparts. Growing up in the city was hypothesized to have an equally positive effect on the wage rate of husbands and single females.

**H14:** The positive effect of the labor segment in which respondents work on wage rate is greater for males than for females. Because of traditional socialization patterns, women are more likely to work in service occupations. Most service occupations are segregated in the secondary labor segment which is characterized by the lack of control over the means of production and authority over others as well as by lower wages. As workers (versus managers or supervisors), women are more likely to lack control over or access to the means of production. When women work in the primary sectors of the labor market, they tend to hold subordinate positions. Those in positions of authority, receive lower economic rewards to authority than men
working under similar conditions. It was hypothesized that employment in the independent primary and subordinate primary labor segments accrues males higher benefits. Therefore, employment in either primary sector was expected to have a greater positive effect on males' than on females' wage rate.

**H1a: The negative effect of percentage female in respondents' occupation on wage rate is greater for males than for females.** The type of job a person holds is significantly related to his/her wage rate. Because of traditional socialization patterns, women tend to enter occupations considered "proper for women" (i.e., occupations which involve duties similar to the ones women perform at home). Because so many women are channelled into these "proper occupations" they exhibit a high percentage of females. Women working in female-typed occupations receive low wages comparable to the wages of women working in other occupations. On the average, men working in female-typed occupations earn higher wages than women working in the same occupation; but, when compared to the wages of men working in male-typed occupations, men working in female-typed occupations earn less. Therefore, employment in occupations with a high percentage of females was expected to have a greater negative effect on males' than on females' wage rate.
Hi: The positive effect of the economic sector in which respondents work on wage rate is greater for males than for females. The economic sector of the industry in which one works affects one's earnings. Core or monopolistic industries usually derive high profits which they can pass on to the workers. Very competitive and innovative core industries are likely to be efficient and to reward workers' productivity with high wages. In core industries, promotion ladders are higher and the climbing requirements are more or less standardized for all the workers. Unions are also more likely to organize and to be successful in high-profit industries. Women's concentration in periphery service industries was expected to have a negative effect on their wage rate. The government sector falls between these two categories. Women working for the government are likely to be involved in staff and clerical occupations which are neither the highest or the lowest paid positions in this labor sector. Employment in the core and government sectors was expected to have a greater positive effect on males' wage rate.

H17. The positive effect of union bargaining power, as measured by union membership and union status of the job, on wage rate is greater for males than for females. Being a union member and/or holding a job protected by a union labor contract accrues the workers power to bargain for higher wages and better working conditions.
Union membership is positively related to wage rate. Being a union member implies having certain privileges and rights not accorded to non-union members. These privileges and rights can translate into higher earnings. Family responsibilities and the socialization of women for the nurturing and support roles might reduce women’s time to join unions or to get organized. It was hypothesized that lack of membership in a labor union would be detrimental to women’s earnings.

Union status of the job is positively related to wage rate. Unionized jobs are likely to influence workers’ earnings positively. Job ladders as well as workers’ pay raises and promotion rights are more likely to be protected by labor contracts. Women’s concentration in non-unionized service occupations was hypothesized to be detrimental to their earnings. If women’s jobs are protected by labor union contracts, the labor unions negotiating such contracts might not bargain as strongly as they would if they were negotiating for men and women working in male-typed jobs. Consequently, the effect of union status of the job was expected to be stronger for males than for females included in the sample.

Summary

Two specific theoretical frameworks, human capital theory and socialist feminist theory, developed by status
attainment theorists and Marxist theorists, respectively, were selected to analyze the income differential between men and women in the sample. The most important application of human capital theory is in helping us to understand the distribution of income among individuals in our society according to their investment in health, education, training, choice of occupation, and geographic mobility. The most important application of socialist feminist theory is in helping us to understand how family responsibilities and market conditions affect men's and women's economic achievements in the labor market.

An explanatory model was constructed including personal, family, and structural variables. The effects of these variables were hypothesized to be different for men and women. Hypotheses related to each variable were tested to estimate the extent to which they explain the variation in hourly wages by gender and marital status.
NOTES

(1) Natural: from her readings of Marx, the author understands "natural" to mean "mechanical," something that happens by chance, pure coincidence. The opposite to a natural event is one which results from rational planning, one which shows people's will.

In his translation of The German Ideology, Pascal (1947) interprets "natural" the following way:

*Naturwuchsig* ("growing naturally"). Marx's use of this term seems not quite consistent. He uses it (p.20) to distinguish the economic development of pre-capitalist times, where the division of labor is determined by "natural pre-conditions" e.g., physical strength, needs, accidents, etc. On pp 47 and 51 similarly where "natural" capital attached to the labour and inherited environment of a guildsman, as opposed to the capital of the modern capitalist, which is movable and can be assessed in terms of money. But elsewhere (pp 22, 63) "natural" society is one in which there is a cleavage between the particular and the common interest, hence where men have no control over themselves or society. To this "natural" society he opposes communist society with its planning (p 70, ff).
Secondary analysis of a sample survey was the research design chosen for the study of income differentials of heads of household in the U.S.A. An advantage of the present study is that its dependent variable, hourly wage rate, is closely related to the focus of the original sample survey: family income dynamics.

Data

Data for this study were taken from the Panel Study of Income Dynamics (PSID) a national survey of households conducted by the Survey Research Center at the University of Michigan in 1983 (16th interviewing wave). The PSID is a longitudinal study which started in 1968 under the title "Five Thousand American Families--Patterns of Economic Progress." Now the total sample comprises 7,050 families and includes "split-offs" or family members who have moved away from home (Duncan and Morgan, 1985). The sample is fairly representative of the overall U.S. population on all characteristics except for a slight over-sampling of low-income families.

The PSID started with approximately 2,000 low-income households drawn from the Census Bureau's Survey of
Economic Opportunity and a fresh probability sample of approximately 3,000 additional households taken from the Survey Research Center’s national sampling frame (McLanahan, 1985). The over-sampling of low-income families provided an unusually large sample of single-parent families which made the PSID an ideal data set for testing the hypotheses of this study.

The PSID has respondents in the District of Columbia and in all states except Vermont. Panel families, selected as participants while living in the U.S., now reside in Puerto Rico and 11 foreign countries (Duncan and Morgan, 1985).

Interviewing Procedure

While most interviews were conducted in the field, some were conducted by telephone or through the mail. Telephone interviews were done by field interviewers backed up by the Ann Arbor telephone interviewers who were extremely skillful in getting difficult interviews. The overall response rate was 97.1 percent. Average interviewing time was 23.8 minutes. Respondents were paid $10.00 for the interviewing time plus $5.00 for returning the address correction postcard (Duncan and Morgan, 1985).

Sampling Procedure

Cases comprising this study’s final samples were
selected according to the head's gender and marital status. The PSID coded respondents as follows: 1) Head is male who has Wife/"Wife"(1) in Family Unit, 2) Head is male who does not have Wife/"Wife" in Family Unit, and 3) Head is female. No data were provided for female heads who may have had Husbands/"Husbands" in their family units.

From the three gender-marital status groups created by the PSID, a subsample was drawn composed of husbands, wives, single females and single males who worked at least 26 weeks (half the year) in 1982. By setting the minimum number of weeks worked to 26, individuals only marginally employed were eliminated from the sample because their wage rate may fluctuate unpredictably due to unmeasured variables (Dickinson, 1974). Their working behavior may respond to different patterns not accounted for in the model. The samples comprise only employed respondents because the author's concern pertains to the differences in the attainment of income derived from labor.

Another criterion applied in the selection of respondents was the presence of children in the household. Since some of the hypotheses refer to family constraints, it was deemed appropriate to work with heads of household with similar family characteristics.

A total of 6,852 heads of household were interviewed of which 4,807 were males and 2,045 were females. The final groups included in this research contained 1,688
husbands, 363 single females, 1,022 wives, and only 38
single male heads of household with children. The small
size of the single males group limited the statistical
manipulation of its data. A descriptive analysis of this
group was deemed satisfactory.

Operationalization of Variables

The variables used to test the hypotheses of this
study were measured by questions (indicators) included in
the PSID interview schedule in the sixteenth wave of the
panel (for more details on the interviewing schedule see
Duncan and Morgan, 1985). Variables included in this wave
measured many personal, family, and structural
characteristics which may be related to differences in
men's and women's wages.

Dependent Variable: Wage rate. The measure of hourly
wage rate was generated by choosing the respondents' answer
to the questions "Hourly wage rate?" The PSID data was
already set up to divide the respondents' monthly salary by
the number of hours worked per month so as to provide an
estimate of their salary per hour. This measure may
contain a certain amount of error, but this is not a major
problem. Dickinson (1974) indicates that errors in the
dependent variable should not bias the estimate of the
mechanism of wage determination. Therefore, the
unstandardized solutions (i.e., LISR coefficients) related to the independent variables can be interpreted as rates of returns to a unit change in each independent variable.

The hourly wage rate represents earnings derived from the respondents' main jobs. Overtime pay and earnings from secondary jobs were not included to keep the model simple.

**Control Variables**

<table>
<thead>
<tr>
<th>Name of the variable</th>
<th>Measurement technique</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) Sex</td>
<td></td>
</tr>
<tr>
<td>a) Male</td>
<td>Respondents were asked whether they were male or female.</td>
</tr>
<tr>
<td>b) Female</td>
<td></td>
</tr>
<tr>
<td>B) Marital Status</td>
<td></td>
</tr>
<tr>
<td>a) Husbands</td>
<td>Respondents were asked whether they were married, single never-married, widowed, divorce, or separated. The PSID combined gender and marital status into three categories: male head with wife, male head with no wife, single female. For purposes of the present study, a sample of wives was created from the information provided by the male heads about their families and their wives.</td>
</tr>
<tr>
<td>b) Single Males</td>
<td></td>
</tr>
<tr>
<td>c) Single Females</td>
<td></td>
</tr>
<tr>
<td>d) Wives</td>
<td></td>
</tr>
</tbody>
</table>

**Independent Variables (1 through 17):**

<table>
<thead>
<tr>
<th>Name of the variable</th>
<th>Measurement technique</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Education</td>
<td>Respondents were asked how many years of schooling they had completed.</td>
</tr>
<tr>
<td>2) Yrs. in the Labor Force</td>
<td>Respondents were asked how many years they had worked since they were 18 years old.</td>
</tr>
</tbody>
</table>
Name of the variable:  

3) Full Time Employment

Measurement technique:
Respondents were asked how many of the years they had worked had they been employed full time.

4) Tenure

Measurement technique:
Respondents were asked how long, in terms of months, they had held their present jobs.

5) Weeks

Measurement technique:
 Reported number of weeks worked in 1982.

6) Geographic Mobility

(1) Yes
(0) No

Measurement technique:
Respondents were asked whether they had ever moved to take a job elsewhere.

7) Children

Measurement technique:
Respondents were asked how many children under the age of 20 were living in the household.

8) Children 1-5

Measurement technique:
Two questions were asked in this case: "Number of children 1-2?" and "Number of children 3-5?" Children 1-5 was generated by adding both indicators.

9) Housework

Measurement technique:
Number or hours per week respondent spent doing housework.

10) Absenteeism

Measurement technique:
Number of weeks taken off from work to care for a sick family member.

11) Race

(1) "White"
(0) "Of Color"

Measurement technique:
Respondents were asked to voluntarily identify their racial or ethnic group. For purposes of this study, anyone who did not respond "white" was coded as "of color."

12) Geographic Background

(1) Urban
(0) Rural

Measurement technique:
Respondents were asked the size of the area where they grew up. Categories on this variable were as follows: a) farm, rural area, country; b) small town, any size town, suburb; c) large city, any
<table>
<thead>
<tr>
<th>Name of the variable:</th>
<th>Measurement technique:</th>
</tr>
</thead>
<tbody>
<tr>
<td>12) Geo. Background (cont')</td>
<td>size city; d) other, combination places. In the present study, &quot;Urban&quot; will refer to category &quot;c&quot; or any combination including &quot;c&quot;. &quot;Rural&quot; will refer to categories &quot;a&quot; and &quot;b&quot;.</td>
</tr>
<tr>
<td>13) Labor Segment</td>
<td>Three-digit census occupational categories were coded into three main labor segments or sectors according to the type of social relations of control predominant within each occupation. This operationalization of labor segments follows Piore's (1975) and Edwards' (1979) conceptualization of how occupations are segregated into three basic clusters. A similar coding procedure was utilized by Coverman (1986). See Table 8 in the Appendix.</td>
</tr>
<tr>
<td>(3) Independent Primary</td>
<td></td>
</tr>
<tr>
<td>(2) Subordinate Primary</td>
<td></td>
</tr>
<tr>
<td>(1) Secondary</td>
<td></td>
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<tr>
<td>14) Percentage Female</td>
<td>Occupations were coded according to the concentration of females in each occupation as reported by Mellor (1985) and by the 1980 Census of Population Statistical Abstract (1985).</td>
</tr>
<tr>
<td>15) Economic sector</td>
<td>Respondents were asked what type of an industry they worked for. The PSID coded industries according to the U.S. Census categories of industries. For the present study, industries were coded as core, government, or periphery according to their competitive nature. This operationalization of economic sectors follows O'Connor’s (1973) conceptualization of how industrial capitalist societies are divided into three basic economic segments.</td>
</tr>
<tr>
<td>(3) Core</td>
<td></td>
</tr>
</tbody>
</table>
15) Economic Sector (cont’)

<table>
<thead>
<tr>
<th>Name of the variable</th>
<th>Measurement technique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Sector</td>
<td>Similar coding procedures have been previously utilized by Beck et al. (1978), Hodson (1978), Coverman (1983), Deseran et al. (1984), Jenkins (1984), and Taylor et al. (1986). See Table 9 in the Appendix.</td>
</tr>
</tbody>
</table>

16) Union-Membership

(1) Yes
(0) No

Respondents were asked whether or not they belonged to a union.

17) Unionized-job

(1) Yes
(0) No

Respondents were asked whether or not their jobs were covered by a union contract.

Variables 1-17 were included in the husbands and single females models. Data on variables 6 (i.e., geographic mobility) and on variable 12 (i.e., geographic background) were not available for wives. Consequently, their model consists only of 15 variables.

Statistical Model: $\mathbf{h} = \mathbf{B} \mathbf{n} + \Gamma \mathbf{E} + \mathbf{h}$

where

- $\mathbf{h}$ = Latent (dependent) matrix
- $\mathbf{B}$ = Beta matrix
- $\Gamma$ = Gamma matrix
- $\mathbf{E}$ = Unobserved variables matrix
- $\mathbf{h}$ = Unexplained variance (i.e., error) matrix

The main purpose of this study was to provide a model of the relationships between workers' personal, family, and
structural variables and the hourly wage rate of the workers. Analysis of Covariance Structures was the statistical procedure utilized to analyze the data. The Linear Structural Relationships (LISREL) by the method of Maximum Likelihood, as developed by Joreskog and Soborm (1979), was the version of analysis of covariance structure used in the present study.

LISREL attempts to explain the relationship among a set of observed variables in terms of a generally smaller number of unobserved variables. The observed variables (Y’s and X’s) are also referred to as indicators whereas the unobserved variables are usually referred to as unobserved factors. The relationships among the observed variables are characterized by the covariances among the variables contained in the Sigma matrix. LISREL allows us to perform an analysis of covariance of the structure of the variables contained in the Sigma matrix. The Sigma matrix is decomposed by a model that assumes that the unobserved variables are generating the pattern or structure among the observed variables (Long, 1983).

The LISREL model consists of two parts, the measurement model and the structural equation model. The parameters of the model are estimated with a series of structural equations which simultaneously compute all the parameters in a single computerized process (Joreskog and Soborm, 1979). Figures 1, 2, and 3 in the Appendix
represent the LISREL models that were utilized to measured
the relationship between the unobserved factors and the
observed variables for each group.

Major advantages of the LISREL procedure include the
following. First, it allows the utilization of multiple
indicators under each unobserved factor as well as the
combination of the indicators’ strength in estimating
their effect on wage rate. Second, LISREL allows the
correlation of residuals. Third, the output of the LISREL
program provides additional information on the following
statistics: chi-square, residual correlations between
indicators, diagnostic information involving modification
indices for each potential linkage that is excluded from
the model, and tests for all coefficients in the model.
Put together, all this information is of great help in
evaluating the strength of the models (Acock and Edwards,
1982).

The Statistical Analysis System (SAS) was used to
create Pearson correlation coefficients between the
observed variables and to obtain their standard deviations.
These steps were taken prior to the application of LISREL
to the data. Beyond this point, all other analytical steps
were conducted through LISREL.

Summary

Data for this study were taken from the Panel Study
of Income Dynamics (PSID) conducted by the University of Michigan in 1983. The sample is fairly representative of the overall U.S. population on all characteristics except for a slight over-sampling of low-income families. The over-sampling of low-income families made the PSID an ideal data set for the study of income determinants of female heads of household.

The design chosen for the study was secondary analysis of sample survey. The Linear Structural Relationships (LISREL) by the method of Maximum Likelihood is a version of analysis of covariance structure and was the statistical procedure chosen to analyze the data.

Three variations of the same LISREL model were designed to analyze the samples composed of husbands, wives, and single females heads of household. Only a descriptive analysis of single male heads of household was possible due to the small size of the latter group.

Pearson correlations and standard deviations were necessary steps prior to analysis of covariance structure. They were derived through the Statistical Analysis System (SAS).
NOTES

1) Wife refers to a woman to whom the male head is legally married. "Wife" refers to a woman with whom the male head has lived for at least a year without being married.
Chapter V

RESULTS AND DISCUSSION

The author's intention when designing the methodology for this study was to develop a single theoretical and measurement model for all four samples included in the study. The review of the literature warranted this approach. The final outcome was three variations of the original LISREL model, one for each of the three subsamples: husbands, single females, and wives. Due to the small number of employed single male heads of household with children, the single males sample had to be ruled out of the model construction. Concomitant with the idea of a single model was the idea to measure the unobserved common factors assumed to be related to the workers' personal, family, and structural characteristics (see figure 4 in the Appendix). These three unobserved common factors were believed to affect the dependent variable, wage rate.

While analyzing the data, it was found that each group of indicators chosen to measure the unobserved personal, family, and structural factors were not correlated highly enough to support the assumption that each group was tapping its corresponding common factor. Indicators of workers' seniority: years in the labor force, length of full time employment, tenure, and weeks worked were
correlated highly enough to gather them under the common factor "seniority." The indicators of union bargaining power: union membership and union status of the job were correlated highly enough to gather them under the common factor "union." The remaining variables had to be treated as indicators of single unobserved common factors. Each variable was considered both an indicator and an unobserved common factor assumed to be affecting wage rate.

These outcomes made the final LISREL models look more like regular regression than LISREL models. Because LISREL and regression are fairly similar statistical techniques, the unstandardized and standardized solutions can be interpreted as rates of returns to the independent variables and to the two unobserved common factors, "seniority" and "union."

Descriptive Statistics

A descriptive analysis based on selected statistics (see table 1 on page 109) pertaining to the husbands, single males, single females, and wives included in the study follows. A General Linear Model (GLM) analysis performed on the data indicated that the means of the dependent and independent variables were significantly different at the .0001 probability level, except for number of children and geographic background which were significantly different at the .0009 probability level.
## Table 1. Means and Standard Deviations of Variables Used in the Study

<table>
<thead>
<tr>
<th>Variables</th>
<th>Husbands</th>
<th>Mean</th>
<th>S.D.</th>
<th>S. Males</th>
<th>Mean</th>
<th>S.D.</th>
<th>S. Females</th>
<th>Mean</th>
<th>S.D.</th>
<th>Wives</th>
<th>Mean</th>
<th>S.D.</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable</td>
<td>Wage Rate</td>
<td>10.44</td>
<td>6.48</td>
<td>8.94</td>
<td>5.45</td>
<td>5.96</td>
<td>2.54</td>
<td>6.61</td>
<td>3.13</td>
<td></td>
<td>150.73</td>
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<tr>
<td>Independent Variables</td>
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</tr>
<tr>
<td>Education</td>
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<td>12.48</td>
<td>2.66</td>
<td>11.66</td>
<td>2.98</td>
<td>11.84</td>
<td>2.07</td>
<td>12.51</td>
<td>2.16</td>
<td></td>
<td>8.72</td>
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<td>Years in Labor Force</td>
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<td>11.59</td>
<td>8.53</td>
<td>13.45</td>
<td>10.59</td>
<td>10.42</td>
<td>8.19</td>
<td>7.64</td>
<td>5.66</td>
<td></td>
<td>54.96</td>
<td>.0001</td>
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<td>10.47</td>
<td>8.59</td>
<td>12.32</td>
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<td>8.53</td>
<td>7.80</td>
<td>5.86</td>
<td>5.41</td>
<td></td>
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<td>Tenure (in months)</td>
<td></td>
<td>101.27</td>
<td>87.82</td>
<td>120.40</td>
<td>126.09</td>
<td>70.32</td>
<td>62.03</td>
<td>66.59</td>
<td>56.46</td>
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<td>49.78</td>
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<tr>
<td>Weeks</td>
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<td>46.95</td>
<td>5.21</td>
<td>45.31</td>
<td>7.33</td>
<td>45.71</td>
<td>6.19</td>
<td>45.42</td>
<td>6.13</td>
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<td>0.44</td>
<td>0.33</td>
<td>0.47</td>
<td>0.12</td>
<td>0.32</td>
<td>-</td>
<td>-</td>
<td></td>
<td>18.86</td>
<td>.0001</td>
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<tr>
<td>Children</td>
<td></td>
<td>2.04</td>
<td>1.06</td>
<td>1.92</td>
<td>1.12</td>
<td>1.82</td>
<td>0.99</td>
<td>1.98</td>
<td>1.08</td>
<td></td>
<td>7.08</td>
<td>.0009</td>
<td></td>
</tr>
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<td>Children 1-5</td>
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<td>0.78</td>
<td>0.79</td>
<td>0.34</td>
<td>0.58</td>
<td>0.43</td>
<td>0.64</td>
<td>0.59</td>
<td>0.70</td>
<td></td>
<td>31.13</td>
<td>.0001</td>
<td></td>
</tr>
<tr>
<td>Housework</td>
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<td>6.81</td>
<td>7.33</td>
<td>9.92</td>
<td>10.61</td>
<td>16.57</td>
<td>10.68</td>
<td>20.43</td>
<td>10.70</td>
<td></td>
<td>509.19</td>
<td>.0001</td>
<td></td>
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<tr>
<td>Absenteeism</td>
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<td>0.21</td>
<td>0.51</td>
<td>0.52</td>
<td>1.71</td>
<td>0.55</td>
<td>1.44</td>
<td>0.49</td>
<td>0.97</td>
<td></td>
<td>31.25</td>
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<tr>
<td>Race</td>
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<td>0.47</td>
<td>0.39</td>
<td>0.49</td>
<td>0.27</td>
<td>0.44</td>
<td>0.62</td>
<td>0.48</td>
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<td>64.70</td>
<td>.0001</td>
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<tr>
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<td>0.48</td>
<td>0.37</td>
<td>0.49</td>
<td>0.46</td>
<td>0.49</td>
<td>-</td>
<td>-</td>
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<td>0.65</td>
<td>1.97</td>
<td>0.67</td>
<td>1.81</td>
<td>0.70</td>
<td>2.02</td>
<td>0.70</td>
<td></td>
<td>31.57</td>
<td>.0001</td>
<td></td>
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<tr>
<td>Economic Sector</td>
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<td>0.90</td>
<td>2.15</td>
<td>0.94</td>
<td>2.09</td>
<td>0.95</td>
<td>2.08</td>
<td>0.95</td>
<td></td>
<td>10.56</td>
<td>.0001</td>
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<tr>
<td>Union Membership</td>
<td></td>
<td>0.27</td>
<td>0.44</td>
<td>0.26</td>
<td>0.44</td>
<td>0.18</td>
<td>0.38</td>
<td>0.15</td>
<td>0.35</td>
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<td>Unionized Job</td>
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<td>0.31</td>
<td>0.46</td>
<td>0.29</td>
<td>0.46</td>
<td>0.24</td>
<td>0.42</td>
<td>0.17</td>
<td>0.38</td>
<td></td>
<td>19.94</td>
<td>.0001</td>
<td></td>
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</tbody>
</table>
The mean wage rate for single males ($8.94) was higher than the wage rate for single females ($5.96) and wives ($6.61) but lower than the mean wage rate for husbands ($10.44). The average number of years of education was about the same for all four groups (H=12.48, S.M.=11.68, S.F.=11.84, and W=12.51). These averages are similar to the national median years of education which are 12.7 for males and 12.6 for females (U.S. Department of Commerce, 1987).

The average number of years in the labor force is higher for single males (13.45) than for any other of the three groups in the study (H=11.59, S.F.=11.84, and W=12.51). The mean for years of full time employment is also higher for single males (12.30) than for any other group in the study (H=10.47, S.F.=8.53, and W=5.86). The mean for tenure (i.e., months in present job) is also higher for single males (120.40) than for any other group in the study (H=101.27, S.F.=70.32, and W=66.59). These three variables were treated in the present study as indicators of seniority. Since single males have fewer small children, they might be able to devote more time to paid work. Wives have the lowest averages on these three variables. A possible explanation for this outcome is that wives had a choice of working or not working since they had another potential wage-earner in the house (i.e., the husband).
The average number of weeks worked in 1982 was similar among all four groups included in the study (H=46.95, S.M.=45.31, S.F.=45.71, and W=45.42). These figures debunk the myth that men work more weeks a year than women. If number of hours a week, rather than number of weeks a year, would have been the measure, it is very likely that males would have shown a higher average since males are more likely to work overtime.

A larger proportion of single males (33%) seem to have moved to take a job somewhere else. Husbands (27%) and the single females (12%) seemed to be more geographically stable. Although single males had worked more months for the present employer, (S.M.=120.40, H=101.20, and S.F.=70.32), the fact that they had a lower average of children under five (S.M.=.34, H=.78, W=.59 and S.F.=.43) and fewer family relations, in general, might allow them more freedom for job-relocation. The PSID provided no information on the wives' geographic mobility.

The mean number of children under 20 living at home was not that different among the groups except for the single females who seemed to have fewer children than the other three groups (H=2.04, S.M.=1.92, S.F.=1.82, and W=1.98). The average number of children under five was more variable with husbands having the highest average .78, and single males having the lowest .34 (S.F.=.43 and W=.59).
Both groups of women had far and above higher averages of weekly hours of housework than the men. Wives average was the highest (H=6.81, S.M.=9.92, S.F.=16.57, and W=20.43). These averages were far below other researchers' estimates.

The higher average number of children living in the house and of number of children under five reported by husbands and wives is probably related to the wives' higher average hours of housework. Wives' higher average number of hours of housework could also be related to the fact that wives have an adult male to care for. It should be noted that husbands provided both their own and their wives' information. It is likely that the husbands inflated their number of hours of housework while deflating their wives'. Therefore, the average of 20.43 hours of weekly housework reported for wives is probably a conservative estimate.

Husbands had the lowest average number of weeks taken off from work to care for a sick family member ("absenteeism") (H=.21, S.M.=.52, S.F.=.55, and W=.47). This could be explained as follows: in most two-working parents homes, the wife is more likely to take time off to care for sick family members. In a one-working parent home, the single parent often does not have a choice but to stay home if someone in the family is sick unless he/she can afford home care for the sick family member or has help
from extended family or friends.

Since the PSID purposely over-sampled poor people, the author expected the four samples included in the study to contain higher percentages of minority members. Results indicate that a larger proportion of husbands and wives were white (H=65%, S.M.=39%, S.F.=27%, and W=62% -remember these husbands and wives are married to each other). These results mean that Whites in the study were more likely to be married or in at least one-year long relationships.

A larger proportion of single females (46%) than husbands (36%) and single males (37%) grew up in a city. These results reflect the national migration pattern: males are more likely to have migrated from the rural to the urban areas to seek employment. No information on the wives' geographic background was provided by the PSID.

Husbands (2.18) and wives (2.02) were more likely to be employed in the primary labor segments than were single females (1.81) and single males (1.97). Being white is associated with holding professional and semi-professional jobs. Since husbands and wives were more likely to be white, their race probably facilitated their entry into the primary labor segments.

Women in the study were concentrated in occupations with higher percentages of females (S.F.=61.57% and W=61.17%); whereas, the men were concentrated into occupations with lower percentages of females (H=26.53% and
S.M.=30.55%). These results reflect the occupational segregation patterns found by other researchers.

Results related to the economic sector in which respondents worked might pose some questions. It seems as if single males (2.15), single females (2.09), and wives (2.08) were more likely to be working for a core industry or for the government than were the husbands (.27). Although husbands were more likely to be white and to hold professional or semi-professional jobs, they seemed more likely to have been employed in the peripheral or competitive sector. It should be noted that small companies, shops, and family-owned businesses, where husbands may have concentrated, were more likely be treated as periphery or competitive following this study’s coding procedure of industrial categories. Finding women working in the core and the government economic sectors is consistent with other studies’ results. Coverman (1986) reported that firms in the core industry and government are the least discriminatory.

Males included in the study were more likely to be union members than were females (H=27%, S.M.=26%, S.F.=18%, and W=15%). Males were also more likely to hold jobs protected by a labor union contract (H=31%, S.M.=29%, S.F.=24%, and W=17%). These findings are consistent with those of Dickinson (1977) and Bibb and Form (1977). In general, women are less likely to be members of labor
unions and the jobs they hold are less likely to be protected by labor union contracts.

**Specification of Measurement Models**

The three model variations for this study (see figures 1, 2, and 3 in the Appendix) included all eight parameter matrices (1) but only two needed to be declared on the MODEL statement, THETA-DELTA (TD) and THETA-EPSILON (TE). The other matrices, LAMBDA-X (LX), LAMBDA-Y (LY), BETA (BE), GAMMA (GA), PHI (PH), and PSI (PS) were analyzed using default options. Following the LISREL procedures, some elements of LX and TD were free whereas other elements of LX, PH, and the only element in LY were set to 1.0. This was done to fix the scales in each matrix.

Tables 1, 2, and 3 in the Appendix, display the LISREL models developed for the samples composed of husbands, single females, and wives as they were input in the computer. The elements in the matrices Lambda-X (LX), Theta-Delta (TD), and Lambda-Y (LY) which were either free or set to 1.0 are indicated on these displays. All elements in the matrix PHI (PH) were fixed at their observed values.

**Results and Interpretations**

The information provided by the Maximum Likelihood LISREL estimates suggests whether or not the model provided
a satisfactory fit to the data. The following indicators were analyzed to determine the goodness of fit of the three model variations. Because it was assumed that the three groups included in the study face different labor force experiences, these indicators were estimated separately. The separate estimates denote sample variations.

Chi-Square ($X^2$): a low chi-square measure with a high number of degrees of freedom and a probability level close to 1.0 indicates that the model has succeeded in nearly reproducing the Sigma covariance matrix. A model is successful in reproducing the Sigma covariance matrix when it includes most of or all the necessary linkages or paths between the variables. This means that the model is identified. The relevance of these paths is contingent upon the theory from which the paths were derived and on the researcher's interpretation of that theory. The following are the chi-square measures for each sample.

Husbands $X^2=352.92$ had 121 degrees of freedom and a probability level of .000; single females $X^2=140.43$ had 122 degrees of freedom and .122 probability level; and wives $X^2=144.60$ had 92 degrees of freedom and a probability level of .000. The .000 probability level for the husbands and wives samples indicates that these two models failed to reproduce the Sigma covariance matrix. The .122 probability level for single females indicates that this
model was somewhat successful in reproducing the Sigma covariance matrix.

**Goodness of Fit Index**: a value of this measure close to 1.0 means that the covariances between the observed variables can be almost completely reproduced by the model. The Goodness of Fit Index for husbands, single females, and wives was .979, .961, and .983, respectively. These three measures are close enough to 1.0 to allow us to say that the covariances between the observed variables in each sample are almost completely explained by their respective models.

**Squared Multiple Correlation (R²)**: this measure provides information on the amount of common factor variation of the endogenous dependent variable explained by each of the observed variables included in the model. The R² measures for husbands, single females, and wives were .32, .43, and .34, respectively. According to these results, the model for single females explained more variation on wage rate than did either of the other two models.

**T-Values (t)**: the t-values in GAMMA represent the significance level of the effects of the common factors on the latent (dependent) variable. When using t-values to
make cross-sample comparisons, caution is recommended since the t-values are inflated or deflated by the size of N in each sample. The fact that t-values are higher in the husbands and wives models than in the single females model may be due to the size of N being higher in the first two than in the latter model.

Table 2 on page 120 contains the unstandardized and standardized coefficients and their corresponding t-values (t-values are the same for unstandardized and standardized coefficients). Any t-value greater or equal to 2 indicates that the effect of the corresponding common factor on the dependent variable is statistically significant. A probability level of .05 was deemed appropriate to reject or fail to reject the hypotheses.

**Standard Error (S.E.):** the standard error is a measure of sampling error. It estimates the dispersion or sampling distribution of the data. The standard errors in GAMMA indicate the probability of finding another sample with similar coefficients for the independent variables within two plus or minus standard deviations from the true value. Standard errors provide information on whether or not LISREL estimates are significantly different.

The caution recommended when using t-values to make cross-sample comparisons is applicable to the standard errors since they are an inverse function of the sample
size (i.e., as sample size increases, standard errors decrease). Table 2 on page 120 contains the unstandardized LISREL coefficients and their corresponding standard errors.

**Unstandardized Solutions:** these are LISREL estimates of the effect of each common factor on the dependent variable. The unstandardized solutions allow us to determine which variables are better predictors of wage rate in each model. They facilitate cross-sample comparisons. Variables with statistically significant and statistically different effects in all three model variations were education, seniority, labor segment, economic sector, and union. Other effects were either statistically significant or statistically different in only one or two of the model variations. Table 2 on page 120 contains the unstandardized solutions, their standard errors, and their t-values.

As hypothesized, education had a greater effect on husbands' wage rate (.816 t=12.25) than of single females (.223 t=3.80) and wives' (.370 t=8.37). These results indicate that education is a better predictor of husbands' than of single females' and wives' wage income. Males in the sample seem to receive a higher return to their investment in Education than females do.
Table 2. LISREL Coefficients: Variables Related to Wage Rate by Sample Group [standard errors in brackets] and (t-values in parentheses).

<table>
<thead>
<tr>
<th>Factor/Variable</th>
<th>Husbands</th>
<th>S. Females</th>
<th>Wives</th>
<th>Husbands</th>
<th>S. Females</th>
<th>Wives</th>
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</thead>
<tbody>
<tr>
<td>Education</td>
<td>0.816</td>
<td>0.223</td>
<td>0.379</td>
<td>0.335</td>
<td>0.182</td>
<td>0.262</td>
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<td>[.065]*</td>
<td>[.059]*</td>
<td>[.045]*</td>
<td>(12.25)*</td>
<td>(.80)*</td>
<td>(8.37)*</td>
</tr>
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<td>Seniority</td>
<td>0.156</td>
<td>0.039</td>
<td>0.057</td>
<td>0.200</td>
<td>0.120</td>
<td>0.098</td>
</tr>
<tr>
<td></td>
<td>[.020]*</td>
<td>[.014]*</td>
<td>[.016]*</td>
<td>(7.90)*</td>
<td>(2.71)*</td>
<td>(3.56)*</td>
</tr>
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<td>0.010</td>
<td>0.054</td>
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<td>[.026]*</td>
<td>-</td>
<td>[.014]</td>
<td>(2.63)*</td>
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<td>(0.71)</td>
</tr>
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<tr>
<td></td>
<td>[.300]</td>
<td>[.327]</td>
<td>-</td>
<td>(0.54)</td>
<td>(0.43)</td>
<td>-</td>
</tr>
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<td>Children</td>
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<td>0.008</td>
<td>-0.011</td>
<td>0.016</td>
<td>0.003</td>
<td>-0.004</td>
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<tr>
<td></td>
<td>[.129]</td>
<td>[.110]</td>
<td>[.079]</td>
<td>(0.73)</td>
<td>(0.07)</td>
<td>(-0.13)</td>
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<td>Children 1-5</td>
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<td>-0.104</td>
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<tr>
<td></td>
<td>[.200]</td>
<td>[.174]*</td>
<td>[.127]</td>
<td>(1.55)</td>
<td>(-2.36)*</td>
<td>(0.07)</td>
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<td>-0.018</td>
<td>-0.029</td>
<td>-0.024</td>
<td>-0.085</td>
<td>-0.098</td>
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<tr>
<td></td>
<td>[.018]</td>
<td>[.009]*</td>
<td>[.008]*</td>
<td>(-1.17)</td>
<td>(-2.06)*</td>
<td>(-3.76)*</td>
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<td>Absenteeism</td>
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<td>-0.011</td>
<td>0.030</td>
<td>-0.030</td>
<td>-0.006</td>
<td>0.010</td>
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<tr>
<td></td>
<td>[.258]</td>
<td>[.071]</td>
<td>[.083]</td>
<td>(-1.44)</td>
<td>(-0.15)</td>
<td>(0.36)</td>
</tr>
<tr>
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<td>0.169</td>
<td>0.389</td>
<td>0.119</td>
<td>0.030</td>
<td>0.060</td>
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<tr>
<td></td>
<td>[.307]*</td>
<td>[.249]</td>
<td>[.176]*</td>
<td>(5.28)*</td>
<td>(0.67)</td>
<td>(2.20)*</td>
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<td>-</td>
<td>0.049</td>
<td>0.122</td>
<td>-</td>
</tr>
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<td></td>
<td>[.283]*</td>
<td>[.213]*</td>
<td>-</td>
<td>(2.34)</td>
<td>(2.91)*</td>
<td>-</td>
</tr>
<tr>
<td>Labor Segment</td>
<td>2.045</td>
<td>1.313</td>
<td>1.319</td>
<td>0.207</td>
<td>0.362</td>
<td>0.298</td>
</tr>
<tr>
<td></td>
<td>[.253]*</td>
<td>[.164]*</td>
<td>[.133]*</td>
<td>(8.07)</td>
<td>(7.99)</td>
<td>(9.88)*</td>
</tr>
<tr>
<td>Percentage Female</td>
<td>-0.013</td>
<td>-0.009</td>
<td>-0.003</td>
<td>-0.043</td>
<td>-0.088</td>
<td>-0.023</td>
</tr>
<tr>
<td></td>
<td>[.006]*</td>
<td>[.004]*</td>
<td>[.003]</td>
<td>(-2.02)</td>
<td>(-2.14)</td>
<td>(-0.90)</td>
</tr>
<tr>
<td>Economic Sector</td>
<td>1.292</td>
<td>0.354</td>
<td>0.492</td>
<td>0.180</td>
<td>0.132</td>
<td>0.150</td>
</tr>
<tr>
<td></td>
<td>[.149]*</td>
<td>[.109]*</td>
<td>[.086]*</td>
<td>(8.68)</td>
<td>(3.23)</td>
<td>(5.73)*</td>
</tr>
<tr>
<td>Union</td>
<td>1.836</td>
<td>2.094</td>
<td>1.769</td>
<td>0.120</td>
<td>0.268</td>
<td>0.176</td>
</tr>
<tr>
<td></td>
<td>[.321]*</td>
<td>[.339]*</td>
<td>[.224]*</td>
<td>(5.72)</td>
<td>(6.18)</td>
<td>(7.24)*</td>
</tr>
</tbody>
</table>

* 0.05 Sign. Level
Chi-Square                352.92   140.43  144.60
Degrees of Freedom        121      122     92
Probability Level         0.000    0.122   0.000
Goodness of Fit Index     0.979    0.961   0.983
R²                         0.32     0.43    0.34
N                          1688    363     1022
Seniority also had a greater effect on husbands' wage rate (.156 t=7.90) than single females' (.039 t=2.71) and wives' (.057 t=3.56). Seniority is a better predictor of husbands' wage rate than of single females' and wives'. Seniority was measured by three indicators for husbands and wives: years in the labor force, full time employment, and tenure. These three indicators, plus weeks worked, were used to measure seniority for single females. As hypothesized, males in the sample seemed to be rewarded higher than females for their attachment to the labor force and to their present employer.

Originally an indicator of seniority, weeks worked was made into a separate common factor in both the husbands and the wives models to improve their fit. The same procedure was not followed in the single females model because there was no indication that the fit could have been improved by such a move.

As hypothesized, the number of weeks worked in 1982 had a greater impact on husbands' (.068 t=2.63) than on wives' (.010 t=.71) wage rate. Weeks was considered an indicator of a person's attachment to the labor force, and as indicated above, males seem to be rewarded higher for that attachment. Information provided by the effect of weeks on wage rate leads one to believe that husbands were rewarded higher than wives for the number of weeks they worked even though, their average number of weeks worked
was not higher than wives' (H=46.9 and W=45.4).

Contrary to the author's expectation, geographic mobility did not have a significant effect on husbands (.165 t=.54) or single females' (.142 t= .43) wage rate. No information on the wives' geographic mobility was provided by the PSID. It seems as if a job-related move did not affect the respondents' wages. Although not statistically significant, both effects were in the positive hypothesized direction.

As expected, the number of children under the age of 20 living in the household did not have a significant effect on any group's wage rate (H=.95 t=.73, S.F.=.008 t=.07, and W=−.011 t=−.13). Looking at these unstandardized solutions, it seems as if number of children had a positive effect on husbands' wage rate although this effect was not statistically significant. A similar effect, called the "parenthood effect," was found by Cramer (1980), Coverman (1983), and Waite et al. (1985). The effect of number of children on wives' wage rate, although not statistically significant, was the only one which took a negative direction. Notice that wives and husbands had a higher average number of children under five than single females did (H=.78, W=.59, and S.F.=43). The effect of children under five, which is probably confounded in the effect of children under 20, is what might be causing the negative effect of children on wives' wage rate.
It could be argued that the seemingly greater effect of number of children on husbands' wage rate is related to children's possible interaction with the respondent's age which is in turn related to seniority in male samples. But, since the mean age was 35.9 for husbands, 36.4 for single females, and 34.7 for wives, it is doubtful that number of children was tapping age or seniority in the husbands sample. Children did not depress the parents' wages by a significant degree.

It was hypothesized that the negative effect of children under five years of age was greater for females than for males. This was found to be partially true. Children under five had a significant negative effect on single females' wage rate (-.410 t=2.36) and a non-significant positive effect on husbands' (.312 t=1.55). The effect of children under five on wives, although not statistically significant, was in the hypothesized direction (-.010 t=-.13). Same as number of children, number of children under five affected husbands' wage rate positively, although the effect was not statistically significant. It remains to be tested what social or economic factors act as intervening variables in the "parenthood effect" of number and ages of the children on husbands' wage rate. It might be that the ideas of "main provider" and "family wage" in the workers' and the employers' minds affected males' wages positively.
As hypothesized, weekly hours of housework had a greater negative effect on the females', than on the males' wage rate (H=-.021 t=-1.1, S.F.=-.018 t=-2.06, and W=-.029 t=-3.76). As expected, wives' wage rate was more susceptible to housework than was the wage rate of the other two groups. It could be that the demands placed on wives as spouses and mothers, pushed them into occupations with low wages. It might also be that the amount of housework lowered the wives' productivity leading to a lack of promotion and/or pay increase. These connections need further testing.

Contrary to the author's expectations, number of weeks taken off from work to care for sick family members did not have a negative significant effect on the wage rate of any of the groups (H=-.373 t=-1.44, S.F.=-.011 t=-.15, and W=.030 t=.36). Although none of these effects was statistically significant, husbands seemed to pay the highest toll for taking time from work to nurse sick family members. Since attachment to the labor force was highly rewarded for males in the study, a week off in their record affected their wages negatively.

As hypothesized, race (i.e., being white) had a greater positive effect on males' wage rate (H=1.620 t=5.28, W=.389 t=2.20, and S.F.=.169 t=.67). Husbands and wives were able to cash in their race for higher wages. Single females might be concentrated in occupations for
which race is not an important attribute. Although not a
typical human capital variable, race acted as an individual
characteristic which benefited males more than females in
terms of the wages they made.

As hypothesized, geographic background (i.e., growing
up in the city) had a significant effect on husbands' (.665
t =2.34) and single females' (.621 t=2.91) wage rate. No
information on wives' geographic background was provided by
the PSID. Having an urban background might provide the
individual with job information and life skills highly
rewarded in the labor market.

As hypothesized, the effect of labor segment on wage
rate was greater on husbands' (2.045 t=8.07) than for
single females' (1.313 t=7.99) and wives' (1.319 t=9.88)
wage rate. Employment in the primary sector, either
independent or subordinate, was a good predictor of
husbands' wage rate. Occupations which fall within the
primary sector, especially the independent primary sector,
reward the characteristics generally associated with male-
typed jobs: control over one's labor, authority over or
supervision of other workers, and participation in decision
making. These characteristics translated into higher wages
only for husbands. Women employed in occupations with such
characteristics, on the average, do not receive economic
returns as high as men's.
Following the author's expectations, percentage female had a greater negative effect on husbands' \((-0.013 \ t=-2.02)\) than on single females' \((-0.009 \ t=-2.14)\) wage rate. The negative effect of percentage female on wives' wage rate \((-0.003 \ t=-0.90)\), although in the hypothesized direction, was not statistically significant. Husbands seem to have their wages depressed when working in female-typed occupations to a greater extent than females have theirs when working under similar conditions. The difference between the negative effects of percentage female on the wage rate of husbands and single females, although not large enough to warrant a definite conclusion, is consistent with Tienda et al. (1987) findings.

The behavior of the variable percentage female in this study is noteworthy. Percentage female was not significantly related to wage rate when, among other variables, it was included in a Pearson correlation matrix for each sample. Nevertheless, when all the respondents were included in an aggregate sample, percentage female and the wage rate were significantly correlated \((-0.21004 \ p<0.0001)\). These findings reflect the occupational segregation of males and females. The high level of occupational sex segregation within each group may account for the lack of a significant correlation between percentage female and wage rate in each sample. In other words, due to a high level of occupational sex segregation
per sample, wage rate did not show much sample variation.

As hypothesized, the positive effect of economic sector (i.e., core, government, and periphery) on wage rate was greater for males than females in the study (H=1.292 \( t=8.68 \), S.F.=.354 \( t=3.23 \), and W=.492 \( t=5.73 \)). Working in the core (i.e., heavily monopolistic and more profitable) economic sector accrues higher wages to males than to females. Females working in the core economic sector are more likely to be segregated into the subordinate positions.

The results of union bargaining power, as measured by union membership and union status of the job, were as hypothesized to some extent. Contrary to the author's expectation, the positive effect of union on wage rate was greater for single females (2.094 \( t=6.18 \)) than for husbands (1.836 \( t=5.72 \)). But, in line with the hypothesis, the positive effect of union on wage rate was greater for husbands (1.836 \( t=5.72 \)) than for wives (1.769 \( t=7.24 \)). The difference between the effect of union on husbands' and wives' wage rate was not large enough to warrant a definite conclusion. Looking at these results, it seems as if it is more advantageous for single females than for husbands and wives to be a member of and/or be protected by a labor union. Table 3 on page 128 contains a summary of this study's hypotheses and the decisions to accept or reject them according to the findings.
<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Accept</th>
<th>Reject</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_1$: The positive effect of education on wage rate is greater for males than for females.</td>
<td></td>
<td>$X$</td>
</tr>
<tr>
<td>$H_2$: The positive effect of seniority, as measured by years in the labor force, full time employment, and tenure, on wage rate is greater for males than for females.</td>
<td></td>
<td>$X$</td>
</tr>
<tr>
<td>$H_3$: The positive effect of weeks worked in 1982 on wage rate is greater for husbands than for wives.</td>
<td>$X$</td>
<td></td>
</tr>
<tr>
<td>$H_4$: The positive effect of geographic mobility on wage rate is greater for husbands than for single females.</td>
<td>$X$</td>
<td></td>
</tr>
<tr>
<td>$H_5$: The effect of children on wage rate is not significant for any of the groups.</td>
<td>$X$</td>
<td></td>
</tr>
<tr>
<td>$H_6$: The negative effect of children under five on wage rate is greater for females than for males.</td>
<td>$X?;;X?$</td>
<td></td>
</tr>
<tr>
<td>$H_7$: The negative effect of children under five on wage rate is greater for single females than for wives.</td>
<td>$X$</td>
<td></td>
</tr>
<tr>
<td>$H_8$: The negative effect of housework on wage rate is greater for females than for males.</td>
<td>$X$</td>
<td></td>
</tr>
<tr>
<td>$H_9$: The negative effect of housework on wage rate is greater for wives than for single females.</td>
<td>$X$</td>
<td></td>
</tr>
<tr>
<td>$H_{10}$: The negative effect of absenteeism on wage rate is greater for females than for males.</td>
<td>$X$</td>
<td></td>
</tr>
<tr>
<td>$H_{11}$: The negative effect of absenteeism on wage rate is greater for single females than wives.</td>
<td>$X$</td>
<td></td>
</tr>
<tr>
<td>$H_{12}$: The positive effect of race on wage rate is greater for males than for females.</td>
<td>$X$</td>
<td></td>
</tr>
<tr>
<td>$H_{13}$: The positive effect of geographic background on wage rate is equally significant for husbands and for single females.</td>
<td>$X$</td>
<td></td>
</tr>
<tr>
<td>$H_{14}$: The positive effect of labor segment on wage rate is greater for males than for females.</td>
<td>$X$</td>
<td></td>
</tr>
<tr>
<td>$H_{15}$: The negative effect of percentage female on wage rate is greater for males than for females.</td>
<td>$X$</td>
<td></td>
</tr>
<tr>
<td>$H_{16}$: The positive effect of economic sector on wage rate is greater for males than for females.</td>
<td>$X$</td>
<td></td>
</tr>
<tr>
<td>$H_{17}$: The positive effect of union on wage rate is greater for males than for females.</td>
<td>$X?;;X?$</td>
<td></td>
</tr>
</tbody>
</table>
Standardized Solutions: these are estimates of the values of the elements in each matrix when the variables have been scaled to unit variance. By scaling the values of the elements in each matrix their importance or contribution within each model is made comparable. Standardized solutions are interpreted as beta-weight coefficients.

Table 2 on page 120 contains the standardized solutions for the elements of Gamma in each model. The variables with the greatest effects on wage rate for husbands are education (.335 t=12.25), labor segment (.207 t=8.07) seniority (.200 t=7.90), economic sector (.180 t=8.68), union (.120 t=5.72), and race (.119 t=5.28). For single females, the variables with the greatest effects on wage rate were labor segment (.362 t=7.99), union (.268 t=6.18), education (.182 t=3.80), economic sector (.132 t=3.23) geographic background (.122 t=2.91), seniority (.120 t=2.71) and number of children under five (-.104 t=-2.36). In the wives model, the variables with the greatest effects on wage rate were labor segment (.298 t=9.88), education (.262 t=8.37) union (.176 t=7.24), and economic sector (.150 t=5.73).

Descriptive Analysis of the Single Males Sample

Due to the selection criteria, the single males sample contained only 38 observations. LISREL's results are not
meaningful on such a small sample. Consequently, a descriptive analysis based on the single males’ Pearson correlation matrix (see Table 5 in the Appendix) is attempted in the following section.

Education and years in the labor force were positively related to wage rate with a significance level of .01 and .05, respectively. Full time employment, tenure, weeks worked, and geographic mobility, although not statistically significant, were positively related to wage rate.

Number of children, children under five, and absenteeism were negatively related to single males’ wage rate but the correlations were not statistically significant. Although not statistically significant, race (i.e., being white) was positively related to wage rate; whereas, geographic background (i.e., growing up on a farm) was negatively related to wage rate.

Labor segment was positively related to single males’ wage rate with a significance level of .001. Percentage female was negatively related; whereas, economic sector was positively related to wage rate but the correlations were not statistically significant.

Whether statistically significant or not, all the above mentioned variables were correlated with single males’ wage rate in the hypothesized direction. Only union membership and union status of the job were correlated to single males’ wage rate in an opposite direction to the one
hypothesized. For some reason, these last two variables, although not statistically significant, were negatively correlated with wage rate. It should be noted that these two variables were positively related at statistically significant levels in each of the three other groups' correlation matrices, except union membership with husbands's wage rate (positive correlation with p<0.12). The small size of the single males sample (N=38) may account for the lack of statistical significance of some correlations and the unexpected negative direction of the relationship of the two union-related variables and wage rate.

Discussion

The main objective of this research was to compare the effects of personal, family, and structural variables on the wage rate of gainfully employed individuals according to their gender and marital status. Variables were grouped into these three categories following theoretical orientations and previous research. Human capital and socialist feminism are two specific theoretical frameworks developed recently to explain workers' income attainment patterns.

According to the human capital theory, individuals and families make decisions related to their human capital investment to maximize their utility and well-being. Human
capital investment includes health, education, job search, information retrieval, migration, in-service training, and occupational choices. A direct and positive relationship is hypothesized between investment on/or sacrifices related to these variables and the rate of returns they accrue to individuals: the more investment in human capital, the greater the rate of returns; and consequently, the higher the income (Mincer, 1962; Schultz, 1962; Becker, 1964; Mincer and Polachek, 1974; and Blaug, 1976). This theory has been tested on many grounds. It has attracted ardent supporters as well as challengers. Others have used some of its tenets to explain a variety of issues pertaining to status and income attainment.

The human capital theory has been more successful explaining men's than women's earning power. Variables such as sex, race, marital status, family responsibilities, and occupational and industrial segregation have been commonly ignored in the human capital earnings equation. These variables negatively affect women's wages by neutralizing or reducing women's rate of returns to human capital investments. Without these variables, the typical human capital earnings equation fails to reflect women's working experience.

Dickinson (1974), Treiman and Terrell (1975), Acock and Edwards (1982), and Birdsell and McGreevey (1982) found education to have a stronger effect on men's than on
women's economic attainment. On the average, women received 55 to 58 percent of men's returns to each year of education. Our findings are consistent with, although more pessimistic than, previous research. Single women in our sample averaged 27 percent whereas wives averaged 46 percent of the husbands rate of returns to each year of education.

Workers attachment to the labor force, as a measure of work experience, is considered another type of human capital investment because it allows for human capital accumulation (i.e., it prevents the "depreciation of human capital") (Mincer and Polachek, 1974). Attachment to the labor force has been measured by variables such as age, age minus six minus years of schooling, years in the labor force, years in present job, length of full-time employment, and labor force continuity (i.e., lack of labor interruption). Corcoran (1978) found that years in the labor force, years in present job, and percentage of full-time employment positively affected men's and women's earnings.

Women's withdrawal from the labor force, which presumably leads to depreciation of human capital, has been used as an explanation of women's lower wages (Mincer and Polachek, 1974). Corcoran (1978) found that lack of labor force attachment had no influence on women's earnings. Acock and Edwards (1982) found continuity not to be
significantly correlated with women's wages. If withdrawal from the labor force does not have a significant effect on women's wages, is women's rate of returns to staying in it as high as men's? To answer this question, we measured the unobserved concept of respondents' "labor force seniority" through the indicators years in the labor force, years of full-time employment, months with present employer, and yearly weeks worked (this last variable was measured separately in the husbands' and wives' models). Our findings indicated that wives received 37.5 percent; whereas, single females receive 25 percent of men's returns to labor force seniority. Wives averaged 14.7 percent of men's returns to yearly weeks worked.

In terms of geographic mobility, another human capital variable, Oppenheimer (1968) and Llewellyn (1981) found that, in general, geographic mobility affects women's wages negatively. We found that, although not statistically significant, job-related mobility was positively related to the respondents' wage rate but its rate of returns was greater for husbands than for single females. The results confirmed our expectation: women averaged 86 percent of men's returns to job-related mobility.

The difference of these variables' effects on the wage rate of husbands, wives, and single females gives us grounds to conclude that sex and marital status definitely affect workers' earnings. The human capital earnings
equation needs to be expanded to include these two characteristics.

The second theoretical framework which oriented our research was socialist feminism. Theorists within this tradition accept the validity of human capital variables as predictors of workers' earnings but they contend that these variables are not sufficient when explaining women's wages. Supporters of the theory indicate that women's unequal position in the home and in the market is detrimental to their wages. They see women as members both of an oppressed class and of a disadvantaged sex (Reed, 1970; Eisenstein, 1979; Hartman, 1981; and Sokoloff, 1981).

Women have traditionally been seen as free care and services providers. Home duties performed by women have no direct market value in our commodity-oriented society. The association of women's home duties with no money value follows women as they join the labor market. Women's market duties are seen as "natural extensions" of their home duties. Because many jobs held by women, especially service jobs, are associated with what women do at home, their market work tends to be devalued. In a society where women are valued less than men, any activity performed by women is also likely to be valued less than the activities performed by men.

Working women may also be victims of statistical discrimination. Many employers operate under the
assumption that because some women leave the labor force, temporarily or permanently, after marrying and/or having children, other women will do the same. Consequently, these employers might invest less on women's training and might not promote women to positions of authority (Duncan, 1974).

The idea that women's family responsibilities affect their labor force participation is based more on employers' stereotypical thinking than on real facts. Cramer (1980), Coverman (1983), and Waite et al. (1987) found that having children affects women's labor force participation; but, for those women who decide to work, number of children and children's age have very little effect on their labor force commitment. A rather curious effect termed by Waite et al. (1987) the "parenthood effect" is associated with number of children and children's age to men's employment. Men with children, especially school age children, seem to work more and to have higher earnings than men without or with fewer children.

Coverman (1983) found that preschool children had no effect on women's employment. Waite et al. (1987) found that, on the average, newborns reduced women's weekly hours worked from 38 to 35 and that this effect dissipated as children grew older. Coverman (1983) found that preschoolers had a negative effect on men's earnings.
Our findings indicate that number of children had no significant effect on the wage rate of any of the groups included in the study. Although not statistically significant, the "parenthood effect" was apparent on men’s wages. Preschoolers had a significant negative effect on single females’ wage rate, a non-significant positive effect on males’, and a non-significant negative effect on wives’.

Coverman (1983) measured the interacting effect of housework and social class. She found that wives’ in highly-paying occupations with husbands in poorly-paying occupations, had a significant negative rate of returns to their weekly hours of housework when compared to other employed women. Corcoran (1978) found that time taken off from work to care for sick family members had no effect on women’s earnings. Of the three groups included in our study, wives had the highest significant negative rate of returns to weekly hours of housework, followed by single females. Husbands had their earnings negatively affected by weekly hours of housework but at a non-significant level. Absenteeism from work to care for sick family members was not significantly related to the wage rate of any of the groups, but its effect was negative for husbands and single females.

Family responsibilities, other than housework, did not affect women’s employment and should not be used as a basis
for statistical discrimination against women. Housework
should be included in the human capital earnings equation
to reflect the negative effect of housework on women's
earnings. A modified human capital earnings equation
including housework would be more reflective of women's
unique work experience. Such an equation is likely to be
more efficient in predicting women's earnings.

Socialist feminists among other Marxists, e.g. labor
and economic segmentation theorists, contend that
structural variables responsible for shaping the labor
market affect women's earnings negatively. This contention
is supported by other sociologists regardless of their
political orientation. Ferman (1974) detected a negative
compound effect of sex and race on females' wages. Black
women earned less than any other group included in her
study. Tienda et al. (1987) found significant differences
by sex in the effect of race and national origin on wages
for all possible paired contrasts.

In our study, we found that the rate of returns to
being white was 9.6 times greater for husbands than for
single females, and 4.2 times greater for husbands than for
wives although husbands and wives were both more likely to
be white. These results indicate that the sex handicap
superceded the color handicap in the case of wives and that
single females were negatively affected by both their sex
and their color. Growing up in the city was more
advantageous for husbands than it was for single females.

Working in the secondary sector, in female-dominated jobs, and in the peripheral economic sector are associated with women's lower-class status. Working in the primary labor sectors is associated with higher wages for both men and women; whereas, working in the secondary sector is associated with lower wages for women. Edwards (1979) found that wages associated with secondary work, where most women are concentrated, were two-thirds to four-fifths of the wages of primary jobs. Coverman (1986) found that employment in female-dominated jobs, in general, was detrimental to women's wages but it was more detrimental to women employed in the secondary sector.

Tienda et al. (1987) found that employment in female-dominated occupations had negative effects on both men's and women's earnings but the effect was greater for men. The loss to earnings was 2.4 times greater for men than what it was for women. Stevenson (1975) found that a significant portion of the male-female earnings gap could be attributed to women's greater concentration in low-profit industries. Coverman (1983) found that women were concentrated in industries which generated lesser returns to investment than the ones in which men concentrated. Coverman (1986) found the core and government sectors to be less discriminating against women. Beck et al. (1978) found that employment in the core sector was detrimental to
women's wages and Roos (1981) found that employment in the peripheral sector accounted for little of the income gap between the sexes.

Results from this research related to labor segment, percentage female, and economic sector were as follows. The rate of returns to employment in the primary labor segments was significant to all the groups but it was much greater for males than for females and was modestly higher for wives than for single females. Returns to employment in the primary labor segments was 64.2% for single females and 64.4% for wives of what it was for husbands.

Employment in female-dominated occupations was significantly detrimental only to husbands and single females but more detrimental to husbands. The same effect was more detrimental to single females than to wives. Employment in female-dominated jobs cost men 1.4 more than what it cost single females, and 4.3 more than what it cost wives. Employment in the core and government sectors had a significant positive effect for all the groups. The effect was higher for males than for females and higher for wives than for single females. The rate of returns to employment in the core and government sectors was 27.3 percent for single females and 38 percent for wives of what it was for husbands.

Having bargaining power is associated with workers higher wages. Coverman (1983) found a positive effect of
union membership on men's but not on women's wages. Coverman (1986) found the effect of union membership on wages to be large for men but modest for women. Bibb and Form (1977) found that union membership had no influence on blue collar women's earnings. In this study we found that the positive rate of returns to union involvement (measured by union membership and/or incumbency in a job protected by a labor union contract) on wage rate was significant for all the groups. Single females had the highest returns to union involvement followed by husbands and then by wives. Husbands averaged 87.6 percent of single females returns to union involvement whereas wives averaged 85.7 percent.

More research is needed to clarify the effect of union involvement on wages by gender and marital status for a better understanding of the this issue.

Findings related to the effects of the structural variables indicate that there is more to women's earnings than human capital investment and family variables. Race, geographic background, labor segment, economic sector, percentage female in the occupation, and union involvement affect women's wages to a different extent than they affect men's. Including structural characteristics as measures of employment barriers and labor demand has been useful to the researcher in understanding workers' economic attainment. By including family and structural variables in the earnings equation in an effort to understand the process of
determination of women's wages, the researcher was able to move beyond the traditional human capital and prestige or status attainment models.

In order of importance, the best predictors of husbands' wage rate were education, labor segment, seniority, economic sector, union, and race. The best predictors of single females' wage rate were labor segment, union, education, economic sector, geographic background, seniority, and the number of children under five. The best predictors of wives' wage rate were labor segment, education, union, and economic sector. The difference in the order of importance of the variables included in each sample is an indication of the different work experiences of men and women and of the different income determination patterns each gender/marital status group faces. These findings are consistent with the studies and theories reviewed throughout this dissertation: a human capital variable (i.e., education) was the strongest predictor of males' wage rate; whereas, a structural variable (i.e., labor segment) was the best predictor of females' wage rate.

In conclusion, the structural variables included in the models contributed more to the understanding of wage determination by gender and marital status, followed by the human capital variables. From among the family variables, children under five years of age only affected single
females' wages. Weekly hours of housework affected the wage rate of both single females and wives.

A further research step could be to develop models using the variables with the strongest predicting power within each sample to see how the fit of the models improves. An overview of the Pearson correlation coefficients suggests that it would be wise to include housework among the human capital variables. Housework is significantly correlated with many of the indicators of labor force attachment. It might be that housework operates more as an individual than as a family-structural characteristic. After all, housework is a type of investment in human capital (Mincer and Polachek, 1974). Workers have to invest in (i.e., take care of) themselves, they have to invest in their spouses (i.e., another potential worker), and they have to invest in their children (i.e., the next generation of workers). How much one invests in oneself, one's spouse, and children affects society's human capital positively and one's wages negatively.

Summary

Information provided by the Maximum Likelihood LISREL estimates suggest that the model variation designed for single females was more successful in reproducing the Sigma correlation matrix of the sample than were the model
variations designed for husbands and wives. The model for single females was also helpful in explaining a larger percentage of variation than the models designed for the husbands and wives. The Goodness of Fit Index for each model indicates that each model practically explained all the covariance between the observed variables in each sample.

The results from the personal or individual factors were consistent with the reviewed literature and with this study's hypotheses. Education, seniority, weeks worked, and geographic mobility had a greater positive effect on husbands' than on single females' and wives' wage rate.

The results pertaining to the effect of the family factors on the wage rate of the three samples were almost exactly as predicted. Number of children did not seem to affect parents wages significantly. The number of children under five had a significant negative effect only on single females' wage rate; housework's negative effect on wage rate was greater for single females and wives; and absenteeism seemed to depress husbands' more than single females' and wives' wage rate.

Most of the results pertaining to the effect of the structural factors on the three groups' wage rate were in agreement with the reviewed literature and this study's hypotheses. The effects of race, geographic background, labor segment, percentage female, and economic sector on
wage rate were greater for husbands than for single females and wives. The positive effect of union on wage rate was greater for single females than for the two other groups.

Looking at the descriptive statistics one can conclude that husbands, single males, single females, and wives were fairly similar samples in terms of education, weeks worked, and number of children. The samples were different in the following aspects: wives had fewer years in the labor force, both groups of females had worked full time fewer years, both groups of females worked fewer months for the present employer, single males had fewer children under five, both groups of females did more hours of housework, husbands took fewer weeks off from work to care for sick family members, and both groups of females were engaged in occupations with higher percentages of females.
(1) The following are the eight matrices utilized by LISREL to estimate the correlations between the observed and unobserved variables and their effect on the wage rate of respondents in each sample.

**Lambda X (LX):** $\Lambda_X$ correlation between the unobserved factors and the X observed variables.

**Lambda Y (LY):** $\Lambda_Y$ correlation between the endogenous (i.e., dependent variable) and the Y observed variables. In this study, Y and the endogenous variables were the same.

**Theta-Delta (TD):** $\Theta_\delta$ correlation between the error of the observed X variables.

**Theta-Epsilon (TE):** $\Theta_\varepsilon$ correlation between the errors of the observed Y variables.

**Phi (PH):** $\Phi$ correlation between the exogenous (i.e., unobserved common factors $\varepsilon_0$'s).

**Psi (PS):** $\Psi$ correlation between the errors of the endogenous (i.e., dependent $\eta$) variable. In this study there was only one.

**Gamma (GA):** $\Gamma$ correlation between the exogenous variables ($\varepsilon_0$'s) and the endogenous variables ($\eta$'s).

**Beta (BE):** $\beta$ correlation between the endogenous variables ($\eta$'s).
Chapter VI

SUMMARY AND CONCLUSIONS

Summary

The income of the head of the household has an important role in determining the economic status and well-being of the household members (Dickinson, 1974). By 1980, one in five working women was a single head of household who was responsible for the economic well-being of her children (Tienda et al., 1987). Given that approximately one third of U.S. households headed by women are living below poverty level, it becomes imminent that we identify the factors related to these women's wages. Results from studies (U.S. National Advisory Council on Economic Opportunity, 1980) suggest that the men-women wage gap is a major cause in the continuing "feminization of poverty."

Much has been written about the "feminization of poverty," especially of single female heads of household, but little has been said about the personal, family, and structural variables that interact with gender and marital status to determine women's lower wages. One major aim of this study was the development of a model to enhance the understanding of female headed-households and the factors related to their income from labor.
Consensus and conflict were the theoretical models chosen for this study. Two specific theories from within these two perspectives were used, human capital or the economists' version of status attainment and socialist feminism. The following were the variables included in the study:

**Dependent Variable:** hourly wage rate.

**Control Variables:** sex and marital status.

**Independent Variables:** education, years in the labor force, full time employment, tenure, weeks worked, geographic mobility, number of children under 20 living at home, number of children under five, weekly hours devoted to housework, absenteeism from work to care for sick family members, race, geographic background, labor segment, percentage female in respondent's occupation, economic sector, union membership, and union status of the job.

These variables were hypothesized to have different affects on the wage rate of married males, single males, married females, and single females heads of household. Respondent's personal characteristics were hypothesized to have a greater positive effect on males' than on females' wage rate. Family characteristics were hypothesized to have a greater negative effect on females' than on males' wage rate. Housework was expected to depress wife's wage rate more than single females'; whereas, children under five was expected to depress single females' wage rate more
than wife's. Structural variables, except percentage female in respondent's occupation, were hypothesized to have a greater positive effect on males' than on females' wage rate. Percentage female was hypothesized to have a greater negative effect on males' than on females' wage rate.

The research design for this study was secondary analysis of a sample survey. To test the hypotheses, data were taken from the Panel Study of Income Dynamics (PSID), a national survey of households conducted by the Survey Research Center at the University of Michigan in 1983 (16th interviewing wave). The survey is representative of the U.S. population on all characteristics, except for the fact that lower-class people are over-represented.

The over-sampling of lower-class respondents in the PSID made it an ideal data set from which to draw a large number of single females heads of household. To be included in the present study, subjects must have worked at least 26 weeks in 1982 and must have had children living with them at the time of the interview. The subsamples for this study were composed of 1,688 married males (i.e., husbands), 1,022 married females (i.e., wives), 38 single males (i.e., single males), and 363 single females (i.e., single females).

Analysis of covariance structures was the statistical procedure utilized to analyze the data. The Linear
Structural Relationship (LISREL) by the method of Maximum Likelihood, as developed by Jeroskog and Sorbom (1979), was the version of analysis of covariance structures used in the present study. Three variations of the original LISREL model were developed to explain the effects of the personal, family, and structural variables on the wage rate of husbands, wives, and single females. Due to the small size of the single males sample, no LISREL model could be developed for this group. A descriptive analysis of the variables measured for the single males was accomplished.

As hypothesized, the positive effects of education, seniority, and weeks worked on wage rate were greater for males than for females. The hypothesis that the positive effect of geographic mobility was greater for males than for females had to be rejected. Contrary to the author's expectations, geographic mobility was not significantly related to either husbands' or wife's wage rate.

As hypothesized, number of children in the house was not significantly related to the wage rate of any of the groups. A final conclusion about the effect of number of children under five on wage rate is not warranted based on this study's results. It was hypothesized that the negative effect of children under five on wage rate was greater for females than for males, but the results indicate this effect to be significant only for single females. Why it is not significantly related to husbands'
wage rate is explained by the traditional division of labor in the home, but further investigation is necessary to understand why the presence of children under five is not related to wife’s wage rate. The greater negative effect of children under five on single females’ than on wife’s wage rate was consistent with the hypothesis.

As hypothesized, the negative effect of housework on wage rate was greater for females than for males and for wives than for single females. The hypothesized greater negative effects of absenteeism on wage rate for females than for males and for single females than for wives had to be rejected because absenteeism was not significantly related to the wage rate of any of the groups.

As expected, race had a greater positive effect on males’ than on females’ wage rate. And contrary to what the author expected, geographic background had a greater positive effect on husbands’ than on single females’ wage rate. The effect of geographic background on wage rate was hypothesized to be the same for both groups.

Following the author’s expectations, the positive effects of labor segment and economic sector on wage rate were greater for males than for females. Also, as hypothesized, the negative effect of percentage female on wage rate was greater for males than for females.

The effect of union bargaining power on wage rate requires further investigation before a final conclusion
can be offered. It was hypothesized that union's positive effect on wage rate was greater for males than for females. Results from this study indicate this effect to be greater for single females than for husbands and wives.

Overall, the structural variables contributed more to the understanding of the wage determination process by gender and marital status. Education was the strongest predictor of husbands' wage rate; whereas, labor segment was the strongest predictor of wage rate for both single females and wives.

Limitations, Advantages, and Contributions

Limitations: the three main limitations of this study were the small sample size for single males, the fact that information on wives was provided by the husbands, and the lack of indicators of social class. The small number of single males in the final sample did not allow for meaningful LISREL estimates. Consequently, the opportunity for more cross-sample comparability was lost.

Since husbands provided their own and their wife's information, it is possible that they [husbands] inflated or deflated values to their own convenience. Also, some of the wife's variables were created from the husbands' information (e.g. race of the wife was assumed to be the same as the husband's, number of children, and children under five were taken to be the same for the husband and
for the wife in the household). This procedure may have led to a higher correlation of errors than if information had been gathered from the wives themselves or if a separate sample of wives, unrelated to the husbands in the study, could have been interviewed.

In previous years, the PSID had asked the respondents questions pertaining to their control over and access to the means of production as well as authority over others at work. These questions were not asked during the 16th interviewing wave in 1983. The absence of indicators to measure social class made difficult, if not impossible, the testing of some of the tenets of the socialist feminist theory (e.g. the interaction of sex and class is largely responsible for women's lower wages). The alternative indicators of labor segment, percentage female in respondent's occupation, and economic sector, good as they may be for measuring sex occupational and industrial segregation, may not have tapped the Marxist social class categories of owners, petite bourgeoisie, and workers.

A secondary limitation of the study was the shortage of highly statistically correlated variables which could be used as indicators of the same unobserved common factors. The final LISREL model variations resemble traditional regression equations more than linear structural relationship equations.
Advantages: Two main advantages should be underscored. First, the over-sampling of lower-class respondents in the PSID provided a large sample size of single female heads of household. Had a purely representative sample of the U.S. population been drawn by the PSID, it is unlikely that enough single females heads of household could have been subsampled. At least 300 single females heads of household with children were necessary to make LISREL estimates meaningful. The sample size of single females for this study was 363. Second, the author had previously written a term paper on men-women wage differences using LISREL and PSID data from 1978. The knowledge of the literature and the handling of similar data prior to the completion of the present study, gave the researcher a better insight into the problem.

Contributions

The first and most important contribution of this study was the development of a model to explain the relationship between workers' personal, family and structural variables and their hourly wages. While controlling for sex and marital status, we were able to compare the extent of the factors' effects on the respondents' hourly wage rate. Factors related to workers' personal, family, and structural characteristics have traditionally been analyzed separately and tested under different theories. This study was successful in combining
the factors and the theories in an effort to increase the explanatory power derived from previous separate models.

A second contribution of the study was the separation of respondents into three samples: husbands, wives, and single females. By separating the study's participants by gender and marital status, the author was able to apply a variation of the model to each sample and to compare the effects of the different factors (i.e., personal, family, and structural) on each group's wage rate. Although other studies have emphasized gender as a control variable, rarely has its interaction with marital status been controlled when using family and structural variables to explain income determination.

Implications

Results from this study confirm the charge to status attainment and human capital theorists that the variables they have traditionally used are better predictors of income attainment for males than for females. To be able to grasp and understand the labor force experience of women, the human capital income attainment function must be expanded so as to include variables unique to the lot of working women.

Findings from this study indicate that number of children and absenteeism did not have a significant negative effect on female's wage rate. Coverman (1983)
found similar results. Coverman (1983) and Waite et al. (1985) found that having children affects whether or not women enter or reentry the labor force; but once women are in the labor force, children do not seem to have an effect on their labor force commitment. So, maybe it is time we drop children and absenteeism from the explanatory models of women's lower wages and start looking for other variables with a higher explanatory power.

Since number of children under five was related to single females' wage rate and housework was related to single females' and wives' wage rate, more attention should be paid to these variables. On the academic side, attention should be given to these two variables when constructing and testing theoretical models about working women. On the applied side, attention should be given to these variables when designing policies which affect working mothers. It seems as if child-care facilities provided by the state or the employer will not force single women out of the labor force or into low-pay jobs which might offer flexible hours.

Socialized housework and/or socializing husbands and children to do more housework might make it easier for the wives. The reduction in housework is bound to increase their wages. And what about the old motto "Wages for Housework"? (Cox and Federici, 1976). The loss or reduction of women's wages due to demands on their time for
self-maintenance as well as "husband" and child rearing represents a measure of women's investment in the human capital of the family members. Mothers are more likely to take time off from work to invest on the human capital of their children, the next generation of workers. Also, a male worker who benefits from a woman's housekeeping services takes to his work some of her investment in human capital. His market work is a combination of his own labor and the woman's congealed labor. But women receive no positive returns to this indirect type of human capital investment. Findings from the present study suggest that if single females and wives were paid (by the state and/or the employers) or if they were compensated for these indirect investments in human capital, their combined income (i.e., from "market-work" and "home-work") might dissipate some of their economic worries.

Results from this study indicate that besides benefiting from their sex, males also benefited from their race. By the same token, women were victims of the double negative effect of being females and of color. As Ferman (1974) indicates, there is a compound effect of sex and race that negatively affect women's wages. If women, and especially women of color, were treated and paid more equally, their incomes would definitely be higher. For this to happen, affirmative action has to be in full force.
Geographic background was related to males’ and females’ wage rate. Growing up in the city had a significant positive effect on respondents’ wages. Growing up on a farm or in rural area was detrimental to respondents’ wage rate. Since the average age among respondents was 36.5 years (i.e., they grew up during the 1950’s) many of the rural-urban educational differences have since been eradicated. It is imperative, though, to continue the effort to equalize the quantity and quality not only of rural and urban schools but also of ghetto and suburban schools. Students in both ghetto and rural schools frequently suffer because of the quantity and the quality of education they receive.

Labor segments and economic sectors are concepts associated with Marxist class divisions. Men benefit more than women from working in the high-status, high-pay occupations and in the monopolistic sector of the economy. This means that either we start encouraging women to join high-status, high-pay occupations and/or the monopolistic economic sector, or we must start paying them what their labor is worth in whichever labor segment or economic sector they choose to work. The first alternative is being accomplished through feminist teaching and socialization based on the idea of equal opportunity for the sexes. The second alternative is related to equal pay for equal work and pay equity, issues under attack from the conservative
(i.e., business) front. A compromise or combination of both alternatives, in the author's eyes, is the most effective solution.

Men working in occupations with a high percentage of females had their wage rate negatively affected by a modest higher amount than single females and a much larger amount than wives. These results are consistent with labor segment theorists' arguments that it is not the workers' but the segment's characteristics which determine wages. Men and women working in female-typed occupations have lower wages than men and women with similar qualifications working in male-typed occupations. Besides sexist attitudes, the cost of working in a "female" job, might be what is keeping men from entering traditionally female-typed jobs and keeping women from entering traditionally male-typed jobs (Tienda et al., 1987). If incumbency in highly female-typed jobs is detrimental to men, salaries in female-typed jobs must be raised so that more men can be recruited and an occupational desegregation accomplished. This brings us back to the pay equity issue. People, not just women, doing work of comparable worth (e.g., nurses and mechanics) (AFSCME, n.d.) need to be paid similar salaries so as to ease the flow of both sexes between the different occupations.

Husbands and single females benefited from labor union involvement more than wives. It might be that the idea of
"main earner" motivated the first two groups either to join a labor union or to take a job protected by a labor union contract. It may also be that wives greater amount of housework prevented them from getting involved in a labor union or from shopping around for a labor-union protected job. Whichever the reasons may have been, since union involvement is positively related to higher wages, it seems as if all workers would benefit if they would join unions and/or take jobs protected by union labor contracts.

Suggestions for Future Research

If the author, or someone else, were to replicate or expand the present study, the following suggestions might lead to the development of a more parsimonious model. First, choose other variables that are highly and theoretically correlated as indicators of the same common factors so as to benefit from the advantages of the LISREL technique. LISREL can handle multiple indicators under one common unobserved factor. The more indicators under each factor, the greater the likelihood of tapping the unobserved concept associated with the common factor. Compare the contribution of each common factor to the explanation of income determination in each sample.

Second, choose a PSID interviewing wave, prior to or past 1983, which includes some indicators of the respondents' social class. This would allow the testing of
some of the tenets of the socialist feminist theory.

Third, use hours worked a week instead of weeks worked a year to capture personal, family, and structural conditions which might affect the respondent's supply of labor. Notice that in the present study, the variable weeks worked was only significantly related to husbands' wage rate. Hours worked a week might be a better indicator of working women's experience because although women might not take off a full week to attend family responsibilities, they might take off some hours a week.

Fourth, build a model based on an aggregate sample including all the respondents in the present study to compare aggregate effects versus cross-sample effects. For an aggregate model, all samples should contain the same variables. Notice that information on the wife's geographic mobility and geographic background were not provided in the 1983 data set.

Fifth, develop a tree-step model for each sample and for the aggregate sample including personal, family, and structural variables. Compare how the fit and the explanatory power of the models increases as the variables related to personal, family, and market experiences are added.

Sixth, test this study's model (or a similar one) using data from different interviewing waves (e.g. 1968, 1978, and 1988) to measure income differentials and/or
differences in the mechanism of income determination due to time. This procedure would allow for the testing and explanation of women's experience in the labor force from a historical materialistic approach.

The first, second, and third suggestions could not be incorporated into the present study due to limitations of the available data. Suggestions four, five and six were not incorporate because they were beyond the scope of this study.
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Figure 1. Husbands' Model

\[ \delta_1 \rightarrow \delta_2 \rightarrow \delta_3 \rightarrow \delta_4 \rightarrow \delta_5 \rightarrow \delta_6 \rightarrow \delta_7 \rightarrow \delta_8 \rightarrow \delta_9 \rightarrow \delta_{10} \rightarrow \delta_{11} \rightarrow \delta_{12} \rightarrow \delta_{13} \rightarrow \delta_{14} \rightarrow \delta_{15} \rightarrow \delta_{16} \rightarrow \delta_{17} \]

\( \varepsilon_1 \rightarrow \varepsilon_2 \rightarrow \varepsilon_3 \rightarrow \varepsilon_4 \rightarrow \varepsilon_5 \rightarrow \varepsilon_6 \rightarrow \varepsilon_7 \rightarrow \varepsilon_8 \rightarrow \varepsilon_9 \rightarrow \varepsilon_{10} \rightarrow \varepsilon_{11} \rightarrow \varepsilon_{12} \rightarrow \varepsilon_{13} \rightarrow \varepsilon_{14} \rightarrow \varepsilon_{15} \rightarrow \varepsilon_{16} \)

\( n = WAGE RATE \)
Figure 2. Single Females' Model

\[ \delta_1 \rightarrow X_1 \text{ Education} \]
\[ \delta_2 \rightarrow X_2 \text{ Yrs LF} \]
\[ \delta_3 \rightarrow X_3 \text{ F T Emp} \]
\[ \delta_4 \rightarrow X_4 \text{ Tenure} \]
\[ \delta_5 \rightarrow X_5 \text{ Weeks} \]
\[ \delta_6 \rightarrow X_6 \text{ Geo Mob} \]
\[ \delta_7 \rightarrow X_7 \text{ Children} \]
\[ \delta_8 \rightarrow X_8 \text{ Child 1-5} \]
\[ \delta_9 \rightarrow X_9 \text{ Housework} \]
\[ \delta_{10} \rightarrow X_{10} \text{ Absenteeism} \]
\[ \delta_{11} \rightarrow X_{11} \text{ Race} \]
\[ \delta_{12} \rightarrow X_{12} \text{ Geo Back} \]
\[ \delta_{13} \rightarrow X_{13} \text{ Labor Segment} \]
\[ \delta_{14} \rightarrow X_{14} \text{ Perc Female} \]
\[ \delta_{15} \rightarrow X_{15} \text{ Eco Sector} \]
\[ \delta_{16} \rightarrow X_{16} \text{ Union Memb} \]
\[ \delta_{17} \rightarrow X_{17} \text{ Union Job} \]
Figure 3. Wives' Model

\[ \delta_1 \rightarrow X_1 \text{ Education} \]
\[ \delta_2 \rightarrow X_2 \text{ Yrs LF} \]
\[ \delta_3 \rightarrow X_3 \text{ F T Emp} \]
\[ \delta_4 \rightarrow X_4 \text{ Tenure} \]
\[ \delta_5 \rightarrow X_5 \text{ Weeks} \]
\[ \delta_6 \rightarrow X_6 \text{ Children} \]
\[ \delta_7 \rightarrow X_7 \text{ Child 1-5} \]
\[ \delta_8 \rightarrow X_8 \text{ Housework} \]
\[ \delta_9 \rightarrow X_9 \text{ Absenteeism} \]
\[ \delta_{10} \rightarrow X_{10} \text{ Race} \]
\[ \delta_{11} \rightarrow X_{11} \text{ Labor Segment} \]
\[ \delta_{12} \rightarrow X_{12} \text{ Perc Female} \]
\[ \delta_{13} \rightarrow X_{13} \text{ Eco Sector} \]
\[ \delta_{14} \rightarrow X_{14} \text{ Union Memb} \]
\[ \delta_{15} \rightarrow X_{15} \text{ Union Job} \]

\[ \gamma \rightarrow Y \rightarrow \text{ Wage Rate} \]
## Table 1

**Husbands' Wagerate Related Factors (14 KSi's)**

**Data**
- NI = 18
- NO = 1688
- MA = CM

**Labels**
- WAGERATE
- ED
- YRS LF
- FT EMPLOY
- TENURE
- WEEKS
- GEO MOB
- CHILDREN
- CHILD1_5
- HSWORK
- ABSENT
- RACE
- GEO BACK
- LAB SEG M
- PERCTFEM
- ECO SECT
- UNION MBS
- UNION JOB

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- NY = 1
- NE = 1

**LK**

- 'ED'
- 'SENIOR'
- 'WEEKS'
- 'GEO MOB'
- 'CHILDREN'
- 'CHILD1_5'
- 'HSWORK'
- 'ABSENT'
- 'RACE'
- 'GEO BACK'
- 'LAB SEG M'
- 'PERCTFEM'
- 'ECO SECT'
- 'UNION MBS'
- 'UNION JOB'

**LE**

- WAGERATE

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- ST 1 LX(10,8) LX(11,9) LX(12,10) LX(13,11) LX(14,12) LX(15,13)
- ST 1 LX(16,14)
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### Table 2

**SINGLE FEMALES' WAGERATE RELATED FACTORS (13 KSI'S)**

**DATA NI=18 NO=363 MA=CM**

**LABELS**

* 'WAGERATE' 'ED' 'YRS LF' 'FT EMPL' 'TENURE' 'WEEKS' 'GEO MOB*' 'CHILDREN' 'CHILD1_5' 'HSWORK' 'ABSENT' 'RACE' 'GEO BACK' 'LAB SEG' 'PERCFTFM' 'ECO SECT' 'UNIONMBS' 'UNIONJOB'

**RM**

|        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 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WIVES' WAGERATE RELATED FACTORS (12 KSI'S)

DATA NI=16 NO=1022 MA=CM

LABELS

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'CHILDREN' 'CHIL1_5' 'HSWORK' 'ABSENT' 'RACE'
'LAB SEGM' 'PERCTFEM' 'ECO SECT' 'UNIONMBS' 'UNIONJOB'

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LK

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'ABSENT' 'RACE' 'LAB SEGM' 'PERCTFEM' 'ECO SECT' 'UNION'
LE

'WAGERATE'

FR LX(3,2) LX(4,2) LX(15,12)
ST 1 LX(1,1) LX(2,2) LX(5,3) LX(6,4) LX(7,5) LX(8,6) LX(9,7) LX(10,8)
ST 1 LX(11,9) LX(12,10) LX(13,11) LX(14,12)
ST 1 LX(1,1)
FR TD(2,2) TD(3,3) TD(4,4)
FR TD(14,14) TD(15,15)
FI PH(1,1) PH(3,1) PH(4,1) PH(5,1) PH(6,1) PH(7,1) PH(8,1) PH(9,1)
FI PH(10,1) PH(3,3) PH(4,3) PH(5,3) PH(6,3) PH(7,3) PH(8,3) PH(9,3)
FI PH(10,3) PH(4,4) PH(5,4) PH(6,4) PH(7,4) PH(8,4) PH(9,4) PH(10,4)
FI PH(5,5) PH(6,5) PH(7,5) PH(8,5) PH(9,5) PH(10,5) PH(11,5)
FI PH(6,6) PH(7,6) PH(8,6) PH(9,6) PH(10,6) PH(7,7) PH(8,7) PH(9,7)
FI PH(10,7) PH(8,8) PH(9,8) PH(10,8) PH(9,9) PH(10,9) PH(10,10)
FI PH(11,1) PH(11,3) PH(11,4) PH(11,6) PH(11,7) PH(11,8) PH(11,9)
FI PH(11,10) PH(11,11)
ST 4.697 PH(1,1)
ST -2.399 PH(3,1)
ST -.551 PH(4,1)
ST .203 PH(5,1)
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ST -.185 PH(11,1)
ST 37.620 PH(3,3)
ST 0.032 PH(4,3)
ST -.950 PH(5,3)
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Table 3 (cont')

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<td>-0.095</td>
<td>-0.054</td>
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<td>0.099</td>
<td>0.085</td>
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<td>-0.044</td>
<td>-0.039</td>
<td>-0.019</td>
<td>-0.186</td>
<td>-0.119</td>
<td>0.036</td>
<td>-0.009</td>
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<td>13 Eco Sect</td>
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<td>0.029</td>
<td>0.056</td>
<td>0.045</td>
<td>0.228</td>
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<td>0.061</td>
<td>0.081</td>
<td>0.167</td>
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<td>0.037</td>
<td>-0.008</td>
<td>-0.007</td>
<td>0.923</td>
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</tbody>
</table>
Table 8. Classification of 1980 Census Occupations by Labor Market

Coverman (1986) used this coding procedure utilizing 1970 census data. Some new occupations were added to the 1980, mostly specifications or ramifications of 1970 occupations. The new 1980 occupations were coded following Coverman (1986) criteria.

### INDEPENDENT PRIMARY LABOR MARKET

<table>
<thead>
<tr>
<th>Professional, Technical, and Kindred Workers</th>
<th>Managers and Administrators, except farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountants</td>
<td>Assessors, controllers, and treasurers, local</td>
</tr>
<tr>
<td>Architects</td>
<td>public administration</td>
</tr>
<tr>
<td>Computer analysts</td>
<td>Bank officers and financial managers</td>
</tr>
<tr>
<td>Engineers</td>
<td>Buyers and shippers, farm products</td>
</tr>
<tr>
<td>Lawyers and judges</td>
<td>Buyers, wholesale and retail trade</td>
</tr>
<tr>
<td>Librarians, archivists, and curators</td>
<td>Credit men</td>
</tr>
<tr>
<td>Mathematical specialists</td>
<td>Funeral directors</td>
</tr>
<tr>
<td>Life and physical scientists</td>
<td>Health administrators</td>
</tr>
<tr>
<td>Operations and systems researchers and analysts</td>
<td>Construction inspectors, public administration</td>
</tr>
<tr>
<td>Personnel and labor relations workers</td>
<td>Managers and superintendents, building</td>
</tr>
<tr>
<td>Physicians, dentists, and related practitioners</td>
<td>Office managers, n.e.c.</td>
</tr>
<tr>
<td>Nurses, dietitians, and therapists</td>
<td>Officers, pilots, and purser, ship</td>
</tr>
<tr>
<td>Health technologists and technicians</td>
<td>Officials and administrators; public administra-</td>
</tr>
<tr>
<td>Religious workers</td>
<td>tion, n.e.c.</td>
</tr>
<tr>
<td>Social scientists</td>
<td>Officials of lodges, societies, and unions</td>
</tr>
<tr>
<td>Social and recreation workers</td>
<td>Postmasters and mail superintendents</td>
</tr>
<tr>
<td>Teachers (all levels)</td>
<td>Purchasing agents and buyers, n.e.c.</td>
</tr>
<tr>
<td>Engineering and science technicians</td>
<td>Railroad conductors</td>
</tr>
<tr>
<td>Technicians, except health, and engineering and</td>
<td>Restaurants, cafeterias, and bar managers</td>
</tr>
<tr>
<td>science</td>
<td>Sales managers and department heads, retail trade</td>
</tr>
<tr>
<td>Vocational and educational counselors</td>
<td>Sales managers, except retail trade</td>
</tr>
<tr>
<td>Writers, artists, and entertainers</td>
<td>School administrators (all levels)</td>
</tr>
<tr>
<td>Research workers, not specified</td>
<td>Managers and administrators, n.e.c.</td>
</tr>
</tbody>
</table>
SUBORDINATE PRIMARY LABOR MARKET

Sales Workers
Advertising agents and salesman
Auctioneers
Insurance agents, brokers, and underwriters
Real estate agents and brokers
Stock and bond salesmen
Salesmen and sales clerks, n.e.c.

Clerical and Kindred Workers
Bank tellers
Billing clerks
Bookkeepers
Clerical supervisors, n.e.c.
Counter clerks, exc. food
Dispatchers and starters, vehicle
Estimators and investigators
Expediters and production controllers
Insurance adjusters, examiners, and investigators
Library attendants and assistants
Office machine operators
Office machine operators, n.e.c.
Payroll and timekeeping clerks
Postal clerks
Proofreaders
Real state appraisers
Receptionists
Secretaries
Statistical clerks
Stenographers
Stock clerks and storekeepers
Teacher aids, exc. school monitors
Telegraph operators
Tickets, station, and express agents
Typists
Weighers
Miscellaneous clerical workers
Not specified clerical workers

Craftsmen and Kindred Workers
Automobile accessories installers
Bakers
Blacksmiths
Boilermakers
Bookbinders
Brickmasons and stonemasons & apprentices
Bulldozer operators
Cabinetmakers
Carpenters & carpenter apprentices
Carpet installers
Cement and concrete finishers
Compositors and typesetters
Printing traders apprentices, exc. pressman
Cranemen, derrickmen, and hoistmen
Decorators and window dressers
Dental laboratory technician
Electricians & apprentices
Electric power linemen and cablemen
Electrotypers and stereotypers
Engravers, exc. photoengravers
Excavating grading, and road machine operators, exc. bulldozers
Floor layers, exc. tile setters
Foremen, n.e.c.
Forgemen and hammermen
Furniture and wood finishers
Furriers
Glaziers
Heat treaters, annealers, and temperers
Inspectors, scalers, and graders, log and lumber
Inspectors, n.e.c.
Jewelers and watchmakers
Job and die setters, metal
Locomotive engineers
Craftsmen and Kindred Workers (cont')

Locomotive firemen
Machinist & apprentices
Mechanics and repairmen
Millwrights
Molders, metal & apprentices
Motion picture projectionists
Opticians, and lens grinders and polishers
Painters construction and maintenance
Painter apprentices
Paperhangers
Pattern and model makers, exc. paper
Photoengravers and lithographers
Piano and organ tuners and repairmen
Plasterers & apprentices
Plumber and pipe fitter & apprentices
Power station operator
Pressman and plate printers, printing
Pressman apprentice
Rollers and finishers, metal
Roofers and slaters
Sheetmetal workers & apprentice
Stone cutters and stone carvers
Stationary engineers
Structural metal craftsmen
Tailors
Telephone installers and repairmen
Telephone linemen and splicers
Tile setters
Tool and die makers and apprentices
Upholsterers
Specified craft apprentices, n.e.c.
Not specified apprentices
Craftsmen and kindred worker, n.e.c.
Former members of the Armed Forces
Current members of the Armed Forces

Operatives, Except Transport
Asbestos and insulation workers
Blasters and powdermen
Chainmen, roadmen, and axmen, surveying
Checkers, examiners, and inspectors, manufacturing
Cutting operatives
Dressmakers and seamstresses, exc. factory
Drillers, earth
Operatives Sec. Sec. cont'
Fillers, polishers, sanders, and buffers
Meat cutters and butchers
Mine operatives, n.e.c.
Painters, manufactured articles
Photographic process workers
Precision machine operators
Punch and stamping press operators
Sawyers
Shoemaking machine operatives
Solderers
Stationary firemen
Welders and flame-cutters
Winding operatives, n.e.c.
Machine operatives, misc.
Miscellaneous operatives
Not specified operatives

Transport Equipment Operatives
Boatman and canalman
Bus drivers
Conductors and motormen, urban and rail transit
Deliverymen and routemen
Fork lift and tow motor operatives
Motormen; mine, factory, logging camp, etc.
Railroad brakemen
Railroad switchmen
Taxicab drivers and chauffeurs
Truck drivers
Laborers, except farm
  Freight and material handlers
  Lumbermen, raftsmen, and woodchoppers
Farmers and farm managers
  Farmers (owners and tenants)
  Farm managers
Farm workers
  Farm foremen
Service workers, exc. private household
  Cooks, exc. private household
Health service workers
  Dental assistants
  Health aides, exc. nursing
  Health trainees
  Lay midwives
  Practical nurses
Personal service workers
  Airline stewardesses
  Barbers
  Hairdressers and cosmetologists
  Housekeepers, exc. private household
Protective service workers
  Firemen, fire protection
  Marshals and constables
  Policemen and detectives
  Sheriffs and bailiffs

SECONDARY LABOR MARKET

Craftsmen and Kindred Workers
  Millers; grain, flour, and feed
  Shipfitters
  Shoe repairmen
  Sign painters and letterers
Sales Workers
  Demonstrators
  Hucksters and peddlers
  Newsboys
Clerical and kindred workers
  Cashiers
  Clerical assistants, social welfare
  Collectors, bill and account
  Enumerators and interviewers
  File clerks
  Mail handlers, exc. post office
  Messengers and office boys
  Meter readers, utilities
  Shipping and receiving clerks
  Telegraph messengers
  Telephone operators
Operatives, Except Transport
  Assemblers
  Clothing ironers and pressmen
  Dry wall installers and lathers
  Dryers
  Furnacemen, smeltermen, and pourers
  Garage workers and gas station attendants
  Graders and sorters, manufacturing
  Produce Graders and packers, exc. factory and farm
  Heaters, metal
  Laundry and dry cleaning operatives, n.e.c.
  Meat wrappers, retail trade
  Metal platers
  Milliners
SECONDARY LABOR MARKET (cont'
Operatives, except transport (cont'
Mixing operatives
Oilers and greasers, exc. auto
Packers and wrappers, exc. meat and produce
Riveters and fasteners
Sailors and deckhands
Sewers and stitchers
Textile operatives

Transport Equipment Operatives
Parking attendants

Laborers, Except Farm
Animal caretakers, exc. farm
Carpenters’ helpers
Construction laborers, exc. carpenters’ helpers
Fisherman and oystermen
Garbage collectors
Gardeners and groundskeeping, exc. farm
Longshoremen and stevedores
Stock handlers
Teamsters
Vehicle washers and equipment cleaners
Warehousemen, n.e.c
Misc. laborers
Not specified laborers

Farmers and farm managers
Farm laborers, wage workers
Farm laborers, unpaid family workers
Farm service laborers, self employed

Service Workers, exc. private household
Cleaning service workers
Chambermaids and maids, exc. private household
Cleaners and charwomen
Janitors and sextors

Food service workers
Bartenders
Busboys
Dishwashers
Food counter and fountain workers
Waiters
Food service workers, n.e.c., exc.
private household

Health service workers
Nursing aides, orderlies, and attendants

Personal service workers
Attendants, recreation and amusement
Attendants, personal services, n.e.c.
Baggage porters nd bellhops
Boarding and lodging house keepers
Bootblacks
Child care workers, exc. private household
Elevator operators
Personal service apprentices
School monitors
Ushers, recreation and amusement
Welfare service aides

Protective service workers
Crossing guards and bridge tenders
Guards and watchmen

Private household workers
Child care workers, private household
Cooks, private household
Housekeepers, private household
Laundresses, private household
Maids and servants, private household
Table 9. Classification of 1980 Census Industrial Codes by Economic Sector.
The following coding procedure has been previously utilized by Beck et al. (1978), Hodson (1978), Covernan (1983), Deseran (1984), Jenkins (1984), and Taylor (1986), among others. It follows Jenkins (1984) more closely than the others. While there are some differences among these authors in terms of the sectoral placement of industries, there is consensus on the location of the majority. Four different Pearson correlation matrices were tested including respondents' wage rate and economic sector. The economic sectors in these four matrices were identified as: core and periphery; core, government, and periphery; core+government and periphery; core and periphery+government. Among these four coding strategies, core, government, and periphery had the highest correlation coefficient with wage rate.

**CORE ECONOMIC SECTOR**

Agriculture, forestry, and fisheries

Mining

Construction

Manufacturing

Durable Goods
- Metal industries
- Machinery, exc. electrical

Nondurable Goods
- Transportation equipment
- Food and kindred products
- Tobacco manufacturers
- Textile mill products
- Apparel and other fabricated textile products
- Paper and allied products
- Printing, publishing, and allied industries
- Chemicals and allied products
- Petroleum and coal products

Transportation, Communications, and other Utilities
- Transportation
- Communications

Finance, Insurance, and Real Estate

Professional and Related Services
- Offices of physicians
- Offices of dentists
- Offices of chiropractors
- Hospitals
- Convalescent institutions
- Offices of health practitioners, n.e.c.
- Health services, n.e.c.
- Legal services
- Colleges and universities
- Engineering and architectural services
- Accounting, auditing, and bookkeeping service
GOVERNMENT ECONOMIC SECTOR

Postal service
Federal public administration
State public administration
Local public administration

PERIPHERY ECONOMIC SECTOR

Manufacturing
  Durable Goods
  Lumber and wood products, exc. furniture
  Furniture and fixtures
  Stone, clay, and glass products
  Professional and photographic equipment, and
  watches
  Ordnance
  Miscellaneous manufacturing industries

Transportation, Communications, and Other
Utilities
  Utilities and sanitary services

Wholesale and Retail Trade

Business and Repair Services

Personal Services

Entertainment and Recreation Services

Professional and Related Services
  Elementary and secondary schools
  Libraries
  Educational services, n.e.c.
  Not specified educational services
  Museums, art galleries, and zoos
  Religious organizations
  Welfare services
  Residential welfare facilities
  Nonprofit membership organizations
  Miscellaneous professional and related services
Bethania Gonzalez (Betty) was born in Santiago, Dominican Republic on November 7, 1954. She graduated from Politecnico Femenino Nuestra Senora de las Mercedes (Catholic High School) in 1973. She received her B.A. in Education with a concentration in school counseling, in May 1979 from the Universidad Catolica Madre y Maestra in Santiago, Dominican Republic. In 1980, she completed two semesters in the School of Journalism at the Universidad Autonoma de Santo Domingo, Dominican Republic.

Ms. Gonzalez received her M.A. in sociology with a major in rural sociology and minor in women in development in 1983 from Louisiana State University, Baton Rouge, LA. During her master’s program she was involved in a three-year research project on the quality of life of Dominican and Haitian cane workers. She will receive her doctorate degree in sociology with a major in stratification and a minor in economics during the 1987 summer commencement. While at Louisiana State University, Ms. Gonzalez was involved in civil rights activities (with an emphasis on women’s rights). She was a member and an officer in the L.S.U. chapter of the National Organization for Women. She is scheduled to start teaching at a women’s studies department in California in August of 1987.
DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: Bethania Maria Gonzalez

Major Field: Sociology

Title of Dissertation: Male and Female Heads of Household: An Analysis of Factors Related to Their Income Differentials

Approved:

[Signature]
Major Professor and Chairman

[Signature]
Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination:

July 17, 1987