AN ABSTRACT OF THE DISSERTATION OF

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The effect of changes in employment hours on changes in household task hours was studied. Data were used from the National Survey of Families and Households (NSFH) waves one and two. Wave one was a probability sample of 13,017 age 19 and older in the United States who were interviewed in person in 1987-88. Wave two consisted of the original NSFH sample who were reinterviewed five years later in 1992-94. A subsample of 1233 men and women was created by selecting employed men and women who were continuously married to the same spouse, lived in the same household, and had a least one biological child under 18 living in the household at wave one and wave two. After controlling for age in years, education in years, race, wage rate, and age of youngest child, the subsample was used to determine if changes in employment hours caused changes in household task hours. Household task hours were categorized by feminine, masculine, and neutral, as well as total household task hours. Lag regression analysis without gender interaction effects found that a one hour increase in employment hours caused a sixteen minute decrease in total household tasks hours, a twelve minute decrease in feminine household task hours, and a two minute decrease in neutral household tasks among married men and women with children. Lag regression analysis with gender interaction effects found that a one hour increase in employment hours caused a sixteen minute decrease in total household tasks hours and a fourteen minute decrease

for married women with children only. No statistically significant relationship between

changes in employment hours and changes in any category of household tasks hours was

found for married men with children when gender interactions were controlled.

The results of this study supports the interaction of time availability and gender in

explaining changes in household tasks hours.

Employment Hours and Household Tasks: A Longitudinal Analysis
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INTRODUCTION

Work, paid and unpaid, is central to family life (Thompson & Walker, 1989).

Providing for family well-being through work is the one of the most basic functions of the

family (Voydanoff, 1991). Although the terms vary, work in the family context is generally

conceptualized as either market labor or household labor. Market labor generally refers to

market activities by family members that provide income that is used to purchase goods

and services. Household labor generally refers to household activities by family members

that produce goods and services for direct use by the family in the household (Becker,

1991).

With regard to families in the United States, how market labor and household

labor have been allocated has varied considerably over time. In contrast to the common

view that men and women have had a static division of labor in families, studies of family

history in the United States have found that the amount of responsibility and time that men

and women have had for market labor and household labor has changed considerably in

the past few centuries (Bell, 1981; Cowan, 1983; Hareven, 1992; Smutz, 1971).

During colonial times in the United States, market labor and household labor were

largely conducted within the family household. Families provided for themselves largely

through agricultural efforts on a common family household. Market labor and household

labor were often shared by men, women, and children in a common effort (Bell, 1981; Cowan, 1983).

As part of the industrial revolution, market labor gradually moved out of the family household into the industrial workplace. This resulted in many middle class men as well as many lower income and minority men and women leaving the household to engage in market labor (Bell, 1981; Hareven, 1992; Smutz, 1971). These changes created a division of labor between men and women where men specialized in market labor and women specialized in household labor. Later on, after the industrial revolution, women began to replicate men's movement into the market place in the U.S. in increasing numbers (Spitze, 1988). If current rates continue, women's participation in market labor will eventually equal that of men (Gerson, 1985).

The implications of this movement of both men and women into the workplace to engage in market labor and household labor simultaneously are yet to be fully understood. It has, however, created a context in which a reasonable balance between market labor and household labor is increasingly difficult for families to achieve (Hochschild, 1989; Hochschild, 1997). Recent surveys report that individuals are often challenged by their dual roles as workers and family members. Estimates of workers reporting high levels of work-family conflict range from 34% of all workers to 54% of dual-earner families (Hughes, Galinksy, & Morris, 1992). As a result, there is an increasing need for research on the relationships between work in the marketplace and in the home in order to understand the conditions under which men and women are able reconcile what is often the conflicting demands between these two types of work.

Although it is obvious from research on the history of the family that market labor

and household labor are related, how they are related still remains to be understood.

Research that has attempted to understand how men and women in families allocate

market labor and household labor has revolved around three major perspectives. These

theoretical perspectives will be covered in depth during the literature review. The three

perspectives are commonly articulated as: relative resources, time availability and gender

(Coverman, 1985; Presser, 1994).

The relative resource perspective suggests that families allocate market labor and

household labor based on who has the most market labor resources such as income,

education, or occupational prestige. For example, the greater the ability a husband has to

produce income from market labor, the less household labor he does. The strongest

research support for a relative resource link between market labor and household labor

comes from the association between income and time spent in household labor (Blair &

Lichter, 1991; Brayfield, 1992; Kamo, 1988, 1994; Presser, 1994; Ross, 1987; Shelton &

John, 1993; Shelton & John, 1996).

The time availability perspective suggests that families allocate market labor and

household labor based on who has the most time available to do the required work. For

example, the spouse who works the fewest hours in the market will have the most time for

household labor. The strongest research support for a time availability link between

market labor and household labor comes from association between men's (Coltrane &

Ishii-Kuntz, 1992; Coverman, 1985; Kamo, 1988; South & Spitze, 1994) and women's

employment hours and participation in household labor (Acock & Demo, 1994; Blair & Lichter, 1991; Brayfield, 1992; Demo & Acock, 1993; Rexroat & Shelton, 1987).

The gender perspective suggests that families do not allocate market labor and household labor based on who has the most resources or the most time, but rather on ideological beliefs about gender. For example, a couple with a traditional view of gender will allocate market labor to the husband and household labor to the wife, whereas a couple with an egalitarian view of gender will seek to share market labor and household labor responsibilities. The strongest research support for the gender link between market labor and household labor comes from the association between gender role ideology and household divisions of labor (Blair & Lichter, 1991; Brayfield, 1992; Hochschild, 1989; Kamo, 1988; Presser, 1994; Ross, 1987; Shelton & John, 1996).

Each of these perspectives have received significant empirical support. However, despite the need for information on these issues, studies that explore the relationships between market and household work are often limited. Kalleberg & Rosenfeld (1990) concluded that studies that explore this relationship often measure the kinds of work performed by men and women, but generally do not consider the effects of these two types of work on each other. Furthermore, the vast majority of these studies are correlational and use a cross-sectional design. Only two studies use a longitudinal design that analyzes the effects of change in these two types of work on each other (see Coverman & Sheley, 1986 and Nickols & Metzen, 1982). Coverman and Shelly (1986) only studied the longitudinal relationship between men's market labor and household labor, excluding women. Nickols and Metzen (1982) only studied the longitudinal

relationship between wife's market labor and husband's household labor. As a result, there is a need for studies with a longitudinal design that analyze the relationship between market labor and household labor of both men and women.

The purpose of this study is to explore the longitudinal relationship between market labor and household labor of married men and women. Specifically, this study examines the relationship between the change in employment hours and the change in hours spent on household tasks by married men and women with children. In other words, how does men and women's involvement in household tasks change when their involvement in the market changes?

LITERATURE REVIEW

The literature review will cover the following areas: 1) the nature of men's and women's involvement in market and household labor, 2) the role of resources in how families allocate market and household labor, and 3) the role of time availability in understanding how families allocate market and household labor, 4) the role of gender in understanding how families allocate market and household labor, and 5) the relationships between market labor and household labor.

Market Labor and Household Labor

Market Labor

It is commonly assumed that in the past men have been the only paid workers in families. Even a brief historical review of the United States reveals that both men and women have always "worked" in the sense of providing for the basic needs of families including income (Bell, 1981; Cowan, 1983; Ferree, 1990; Hareven, 1992; Smuts, 1971). For example, among U.S. families in the 1700's, market and household labor was largely integrated in the family household. Men and women shared both market and household labor and although tasks were assigned by gender, division of labor was generally mild and their was considerable overlap between roles. It was common for men and women engage together or separately in "market activities" including household industries, independent

craft manufacturing, managing public inns, and even mercantile houses engaged international trade and finance (Bell, 1981).

By the late 1800's, the industrial revolution had moved much of the market labor commonly shared by men and women out of the household (Bell, 1981; Smutz, 1971). Families adapted by sending family members out into the market place. For many, especially middle-class families, men went into the market place and women remained in the household. For other families, including lower income and minority families, both men and women entered the market place (Aldous, 1981; Smutz, 1971). Culturally, this had the effect of creating two very different gender roles for men and women, with women specializing in household labor and men specializing in market labor (Bell, 1981). These cultural norms, however, were set largely by standards achievable only by middle class families. Working class and minority families could not replicate the separation of market labor and household labor typical of the middle class (Hareven, 1992). Technological improvements created in the market place and advertized as "labor saving" devices (and that families often sold their labor to the market in order to buy) ironically began to increase the standards and amount of household labor for women (Cowan, 1983; Cowan, 1987). Market labor that families had done in the household became part of the industrialized market place. In contrast, household labor time actually increased for women due to both higher standards and fewer family members being involved in the work (Bell, 1981; Cowan, 1983).

Although the cultural trends were towards men specializing in the market labor and women specializing in household labor, there were important exceptions. In the

beginning of the industrial revolution, whole families were recruited for factory work, resulting in a temporary rise in the number of men, women, and children involved in market labor (Bell, 1981; Hareven, 1992). However, cultural and economic forces lead to the eventual decline in the proportion of women and children in industry, and market labor became increasingly a male role. For example, between 1850 and 1890, the percentage of women employed in all American industries declined from 24 to 19 percent, and between 1870 and 1900 the percentage of children in industry declined from 5 to 3 percent (Bell, 1981).

Although the majority of women remained in the household during the 1800's, much of household labor included income earning activities. For farm families, much of the family's food supply as well as extra cash often depended on women's agricultural activities. For city families, women earned income by taking in boarders, sewing, food packaging, and other forms of household industry. Women, particularly unmarried daughters, also engaged paid activities such as domestic service, unskilled, and semiskilled factory work, and school teaching. Furthermore, among lower income and minority women, combining market and household labor was a way of life (Hareven, 1992; Smuts, 1971).

By the 1900's, significant changes in industry and the U. S. economy began a trend that brought many more women out of the household and into the marketplace (Bell, 1981; Gerson, 1985). For example, in 1890 women's labor force involvement was around 20%. By 1980, women's labor force involvement was over 50% (Gerson, 1985). Men's current involvement in the market is well over 70% and most work full-time. Women's

current labor force participation rates tend to be lower than men's (Kalleberg & Rosenfeld, 1990), however, rates are rising rapidly and it is possible that women's may equal men's eventually (Gerson, 1985).

Marriage and children tend to constrain women's market labor activities, however. Mothers of small children have a lower labor force participation than any other group (Kalleberg & Rosenfeld, 1990). Even in situations where women have taken on similar market labor responsibilities as men, they still continue to bear the largest share of household labor (Hochschild, 1989, 1997; Robinson, 1988). In addition to family responsibilities, there has also been a historical difference between men and women's wages. Recent data suggest that women continue to make about 70% of what men make in real income (McLanahan & Booth, 1989; Mishel, Bernstein, & Schmitt, 1997). This may be due in part to greater family constraints for women as well as discrimination (McLanahan & Booth, 1989; Kalleberg & Rosenfeld, 1990).

Household labor

Household labor tends to be undervalued regardless of its necessary role in family life. It tends to be invisible, unpaid, and viewed as a support to paid market labor (Ferree, 1990). It is also often gendered labor that may involve a set of culturally and historically specific tasks that communicate social meanings about masculinity and femininity (Berk, 1985). Household labor has changed a great deal historically. Much of household labor has been changed by technology (e.g., public conveniences such as running water, sewer

systems, and electricity). Furthermore, the total hours of actual household labor may have actually increased overtime because of increased standards, fewer family members doing it, and new forms of work created by "labor saving" technology (Cowan, 1983, 1987). The idea of household labor being a distinctive form of work emerged with the industrial revolution. It became the cultural opposite of paid, market labor (Ferree, 1990). This history has had significant implications for the modern workforce and for men and women in families.

Defining and measuring household labor has proven difficult at times because the nature of what type of work is conducted in the household varies considerably (Ferree, 1990). However, the most common definitions of household labor refer to household tasks (i.e., maintenance work such as cooking, laundry, cleaning, etc.) and child care. Most studies reviewed here use household tasks alone or a combination of household tasks and child care as measures of household labor.

Regardless of employment hours, women still do more household labor than men (Kamo, 1988; Robinson, 1988). Current estimates are that men do between 20% (Robinson, 1988) and 35% (Presser, 1994) of household labor. Furthermore, women also assume more responsibility for work defined as "feminine", such as tasks that are done repetitively and at particular times like cooking and laundry. Men tend to do more work defined as "masculine", such as tasks often done at one's convenience and may involve a degree of leisure like household repairs and washing the car (Berk, 1985). More than men, women shift their time and investment between market and household labor in order

to sustain the family (Thompson & Walker, 1989). Women also tend to shape their market participation in response to family needs (Gerson, 1985).

How Married Couples Divide Market Labor and Household Labor

Market labor and household labor are alternative ways of meeting family needs. Household labor produces goods and services directly; market labor produces income that is used to purchase goods and services produced outside of the household (Gorman, 1998). Married couples may use the identical decision making processes to allocate both market and household labor (Berk & Berk, 1983). Several empirical studies have found that married couples may use similar processes to assign responsibility for both forms of labor (Ericksen, Yancey, & Ericksen, 1979; Farkas, 1976). Attempts to explain how married couples divide labor between the market and the household generally fall into one of three categories: relative resources (power or comparative advantage), demand and response capability (time availability), and gender ideology (Coltrane & Ishii-Kuntz, 1992; Coverman, 1985; Gorman, 1998; see also Becker, 1991; Thomas & Walker, 1989; and Ferree, 1990). Each of these perspectives has received substantive treatment by researchers attempting to explain how individuals in families allocate market and household labor (Coltrane & Ishii-Kuntz, 1992; Coverman, 1985).

Relative Resources Perspective

The relative resource perspective assumes that the more market related resources (i.e., education, income, and occupational position) a spouse has, both in absolute and relative terms to the other spouse, the less household labor he or she will perform (Blood & Wolfe, 1960; Coverman, 1985; Gorman, 1998). The relative resources hypothesis has its roots in two theoretical perspectives.

The first theoretical perspective suggests that the division of labor in a marriage is based upon differences in power between spouses. The assumption is that the spouse that holds more power and authority in the marriage can minimize his or her participation in undesirable activities, including household labor (Coverman, 1985; Gorman, 1998; Model, 1981; Shelton & John, 1996). In this view, a spouse's power comes from a relative advantage in market labor resources (Brayfield, 1992; Ross, 1987) and from the other spouse's dependence on those resources to maintain the couple's current standard of living (Brines, 1994). This balance of power is believed to favor husbands because men tend to have higher levels of market labor resources (e.g., income) than women (Berk, 1985; Farkas, 1976; McLanahan & Booth, 1989; Mishel, et. al, 1997).

Consistent with this view, a number of studies find that husbands who provide a larger share of household income perform less household labor (Blair & Lichter, 1991; Brayfield, 1992; Kamo, 1988, 1994; Presser, 1994; Ross, 1987; Shelton & John, 1993). Market labor also tends to carry more social status than household labor (Ferree, 1990) and thus may be desired by spouses precisely because it creates domestic power

(Zvonkovic, Greaves, Schmiege, & Hall, 1996). However, it has been argued that the impact of income on the allocation of household labor is small (Shelton & John, 1996). Further, those studies that measure the effect of income on men's and women's participation in household labor separately generally find that income has a greater impact on women's participation in household labor than on men's (Brines, 1994; see also Shelton & John, 1996).

Educational attainment has also been studied as a measure of power or resources. The majority of studies use absolute measures of men's and women's educational levels (Brayfield, 1992; Kamo, 1988, 1994; Ross, 1987), although several other studies use relative measures of education (Coverman, 1985) or a combination of absolute or relative measures (Blair & Lichter, 1991; Presser, 1994). Most studies find that men's educational level is positively associated with their participation in household labor (Brayfield, 1992; Kamo, 1988; Presser, 1994) and negatively associated with their spouse's participation in household labor (Shelton & John, 1993). These results are somewhat inconsistent with predictions of the relative resource approach and have been interpreted as describing the relationship between education and gender ideology (Coverman, 1985; Farkas, 1976; Presser, 1994). Other studies find no association between men's education and household labor participation (Shelton & John, 1996) or that the effect disappears once gender ideology is controlled (Kamo, 1994). Regarding women's education, studies on household labor generally indicate that women's educational levels are negatively associated with their participation in household labor (Blair & Lichter, 1991; Shelton & John, 1993).

Occupational prestige has also been studied as a measure of resources, but it is less consistently associated with participation in household tasks than income or education (Shelton & John, 1996). As predicted by the relative resource model, some studies report that occupational status is negatively associated with participation in household labor (Brayfield, 1992; Presser, 1994), while others find no association (Coverman, 1985).

The second theoretical perspective involves the application of microeconomic assumptions to the household. Microeconomic approaches to household labor assume that family well-being (i.e., utility) does not depend directly on goods and services purchased with income from market labor. Rather, the primarily sources of family well-being are "household commodities" that family members produce as a result of combining household labor with market labor (Berk & Berk, 1983). "These commodities cannot be purchased in the marketplace but are produced as well as consumed by households using market purchases, own time, and various environmental inputs. These commodities include children, prestige and esteem, health, altruism, envy, and pleasures of the senses, and are much smaller than the number of goods consumed" (Becker, 1991, p. 23-24). For example, "health is a function of meals that are in turn prepared through the efforts of a cook using the market inputs of groceries, kitchen appliances, electricity, and a number of other production 'factors'" (Berk & Berk, 1983, p. 377). In other words, household labor provides vital resources that the family could not survive without.

Beyond simply producing "household commodities", it also assumed that families are seeking the highest level of well-being possible, limited by two constraints: financial resources and the amount of time available (Becker, 1991; Berk & Berk, 1983). Although

families cannot spend more money or use more time than they actually have, they can increase their income and available time by investing in human capital. Human capital is all of the resources that an individual can utilize to obtain goods and services, and can be increased through investments of time. Furthermore, human capital can be divided into market capital and household capital. Market capital involves market labor resources that provide more goods and services from the market. Household capital involves household labor resources that provide more goods and services that can only be created within the household (Becker, 1991).

Becker argues that there is a comparative advantage between individuals regarding market and household capital. That is, one family member has a greater advantage in market labor activities than another family member has over household labor activities. If there is a comparative advantage, then family members should specialize in either market or household labor activities (Becker, 1991). For example, if women tend to make approximately 70% of the salary that men do, a family might allocate men to market activity and women to household activity to take advantage of this pattern.

In this view, it is assumed that the division of household labor is allocated "rationally", that is, the primary goal is maximum efficiency of family members time among market labor and household labor (Becker, 1991). This perspective also predicts that a husband's education, occupational position, and income potential relative to his wife's should reduce the amount of time spent in household labor because these qualities increase the value of his market labor time more than his household labor time (Berk & Berk, 1983). Although Becker (1991) argues that it is most efficient and provides greater

utility for the family to have husband's specialize in market labor (because current labor market discrimination and women's lower levels of market capital may lead to lower incomes in the market (e.g., McLanahan & Booth, 1989)), it has been argued that this does not necessarily maximize a women's individual utility, because women may accumulate less market labor experience and gain fewer total investments in market capital by specializing in household labor. As a result, married women may become more dependent on their husbands, and may be at risk if the marriage does not endure (Menaghan & Parcel, 1991).

After reviewing the studies utilizing this approach, Berk and Berk (1983) suggest that the microeconomic approach has more to offer theoretically than empirically because most of the empirical studies have competing sociological explanations as well as economic ones. Becker's work has also been criticized on a number of grounds, most of which have focused on the limitations of a purely economic perspective applied to family work (Berk & Berk, 1983; Menaghan & Parcel, 1991).

Overall, the strongest support for the relative resources hypothesis comes from the association between income and time in household labor. Also, the association between income and time in household labor may be married couple's attempts to allocate household labor more efficiently (Becker, 1991; Shelton & John, 1996).

Demand and Response Capability

Another major approach to understanding how families allocate market and household labor argues that married couples allocate household labor responsibilities based on the total amount of work to be done and each particular spouse's ability to do it (Coverman, 1985; Gorman, 1999; South & Spitze, 1994). For example, a husband's participation in household labor is a function of the *demands* on the husband to fulfill household labor responsibilities along with his *capability to respond* to those demands (Coverman, 1985). This explanation suggests that men and women participate in household labor to the extent that there are demands on them to do it and the time they have available (Shelton & John, 1996). The most frequently used indicators of time availability are employment hours, number of children, and work schedule (Coverman, 1985; Shelton & John, 1996). Recent time studies have shown that the total number of hours men and women spend working (market and household labor) is about the same (Berk, 1985; Pleck, 1985).

A number of studies suggest that women's employment hours are negatively associated with their household labor participation (Acock & Demo, 1994; Blair & Lichter, 1991; Brayfield, 1992; Demo & Acock, 1993; Rexroat & Shelton, 1987). However, regardless of how much time spent in market labor, women continue to do the majority of household labor (Rexroat & Shehan, 1987; Shelton & John, 1993). Several other studies report that women's employment hours are positively associated with men's household labor (e.g., Blair & Lichter, 1991), often compared to men's proportional share

of household labor (Kamo, 1988; Ross, 1987; Roxroat & Shehan, 1987). However, Brayfield (1992) found no association between relative employment hours and men's participation in household labor.

Several studies report a negative association between men's employment hours and their participation in household labor (Coltrane & Ishii-Kuntz, 1992; Coverman, 1985; Kamo, 1988; South & Spitze, 1994). Blair and Litcher (1991) find that men's employment hours are positively associated with the segregating of household labor. Few studies have looked at the relationship between men's employment hours and wives' household labor participation (e.g., Rextroat & Shehan, 1987).

Overall, women's employment hours are negatively associated with their participation in household labor, resulting in a more egalitarian division of household labor regardless of any increase in men's participation in household labor. Men's employment hours are negatively associated with their participation in household labor (Coverman & Sheley, 1986; Shelton & John, 1996; Voydanoff, 1991).

Gender Ideology

A third major way of understanding how men and women allocate market and household labor has been gender ideology. Regardless of family structure, there are socially constructed expectations for men and women with regards to work. The gender perspective suggests that men and women respond to and create expectations for how men and women in families, both in market labor and household labor (Ferree, 1990;

Thompson & Walker, 1989). The gender perspective focuses upon "how specific behaviors and roles are given gendered meanings, how labor is divided to express gender difference symbolically, and how diverse social structures rather than just families incorporate gender values and convey gender advantages" (Ferree, 1990, p. 868). By separating specific roles by gender, the gender perspective provides a model for structural analysis of family relationships. The gender perspective also emphasizes the historical link between households and the market (Ferree, 1990). Berk (1985) suggests that gender is such a major element in the division of household labor that she describes the household as The Gender Factory. Hence, the relationship between labor and gender is a major issue both in and out of the household (Ferree, 1990). These "gendered meanings" influence how men and women conceptualize market and household work in the family. In this view, men and women with more egalitarian views of gender will have a more equal division of household labor than those with more traditional attitudes (Shelton & John, 1996). Thus, in contrast to resource and time availability models of household labor, the gender perspective suggests that household labor is not allocated efficiently to the person with most time to do it (Ferree, 1990). Instead, it is allocated on the basis of what each person comes to believe is appropriate for them as men and women, a process described by Potucheck (1992) as "active and contentious" (p. 556).

Most studies of market labor and household labor measure gender via measures of gender role attitudes or ideology. Studies have found that men with more traditional gender role attitudes spend less time on household labor than those with more egalitarian roles, while the reverse is true of women (Brayfield, 1992; Hochschild, 1989). Although

consistent with the predictions of the perspective, the strength of these associations is sometimes weak (Shelton & John, 1996). This may be in part because measures of gender role attitudes or ideology treat beliefs about gender as if they were a stable, static construct measurable at a single point in time. Such measures of gender do not capture the dynamic reconstruction of gender relationships found by qualitative studies and predicted by the full gender perspective (e.g., Hochschild, 1989, 1997; Osmond & Thorne, 1993).

Most studies find that the more egalitarian men's gender role attitudes are, the more equal the division of household labor, but these studies typically use proportional measures of men's share of housework (Blair & Lichter, 1991; Kamo, 1988; Presser, 1994; Ross, 1987). However, Brayfield (1992) reported that men's attitudes about whether household labor should be shared when both husband and wives are employed full-time are not associated with their share of household labor. To the degree that there is an association between men's gender role attitudes and their proportional share of household labor, it is probably due to its effect on wives' household labor time (Presser, 1994; Shelton & John, 1993).

Only a few studies find an association between women's gender role attitudes and the division of household labor. Those that do find that women with more egalitarian attitudes spend less time on household labor (Brayfield, 1992; Presser, 1994). However, several studies report no effect on women's gender role attitudes on household labor (Ross, 1987; Shelton & John, 1993).

Overall, most studies indicate that men's gender role attitudes are more strongly associated with household labor than women's, but that gender role attitudes as measured

by quantitative studies do not account for very much of the variation in the division of household labor (Shelton & John, 1996).

In summary, empirical studies of market and household labor have examined the role of relative resources, time availability, and gender ideology to understand how married men and women divide market labor and household labor in the family. Support has been found for each of these perspectives suggesting that each one is a significant factor in understanding the relationship between market labor and household labor. Hence, all three perspectives should be considered in the study of market labor and household labor (Presser, 1994).

Logic suggests that each of these perspectives analyzes market labor and household labor at a different levels. For example, the relative resources perspective is the most distant in its relationship to household labor. Couples probably do not use how much income, human capital, or occupational prestige they have in relationship to each other to decide how they will allocate labor on a daily basis. It is much more likely that resources would be used in long term decision making.

Much closer in proximity than the relative resource perspective, the gender perspective operates in relation to household labor in that men and women construct beliefs about what their personal obligations in household labor are and use these gender related responsibilities to govern participation in the household. However, men and women do not use gender beliefs if they are not available or do not have time to do the work.

It follows then that couples are much more likely to make daily household labor decisions based on personal time availability than either relative resources or gender ideology. This suggests that the time availability perspective may be the most significant in relationship to household labor patterns. Coverman (1985) found empirical support for this view as well.

Relationships Between Market Labor and Household Labor

Hours worked in the market and in the household have been studied extensively and there are suggestions that one kind of work affects the other (Kalleberg & Rosenfeld, 1990). Because most market and household activities are performed at separate locations, individuals are largely unable to perform both market and household responsibilities at the same time. As a result, time spent in one area is not available for the other. Working long hours in market labor limits the degree to which individuals can be physically available for household labor (Voydanoff, 1990). Previous studies have found a direct relationship between the number of hours worked and conflicts with family related activities in the household (Shelton & John, 1996; Voydanoff, 1990). For both men and women, the greater the number of hours spend in market labor, the fewer the number of hours spent in household labor (Coverman & Sheley, 1986; Shelton & John, 1996). Recent times studies tend to show that the total number of hours men and women spend as workers (market labor and household labor) is about the same (Berk, 1985; Pleck, 1985). However, men are more likely to use their responsibilities for market labor as excuses for lower

participation in household labor, whereas women are more likely to do the reverse (Voydanoff, 1990).

As mentioned previously, despite a growing need for clear information on the relationship between market labor and household labor among married men and women, studies that explore the relationships between market and household work are often limited to cross-sectional designs that do not consider the longitudinal effects of change of in these kinds of work on each other. The two studies that do use a longitudinal design (Coverman & Sheley, 1986; Nickols & Metzen, 1982) did not study both married men and women. Therefore, longitudinal studies that investigate the relationship between market labor and household labor of married men and women are needed.

Furthermore, correlational studies that measure time availability can only draw conclusions regarding positive or negative associations between time availability and household labor. In reality, time availability ought to be tested longitudinally to determine if men and women change their household labor participation as their available time changes.

Justification for the Study

Given the relationships found by previous research suggesting that involvement in household tasks declines as employment hours rise (Coverman & Shelly, 1986; Kalleberg & Rosenfeld, 1990; Shelton & John, 1996); the role of gender in how families divide market and household labor (Ferree, 1990; Thompson & Walker, 1989); the absence of

significant numbers of longitudinal studies on this subject (see Coverman & Sheley, 1986

and Nickols & Metzen, 1982 for exceptions); and the need to study the time availability

perspective longitudinally, longitudinal research studying the relationship between market

labor and household labor among men and women is needed. This study will further

scientific understanding of market labor's relationship with household labor among men

and women because it can contribute to our understanding of how married men and

women adjust their household labor participation according to available time as measured

by hours of employment. It also considers the role of income and gender in relation to

available time as suggested by Presser (1994).

Research Question

The purpose of this project is to address the question: What is the relationship

between the change in hours of employment on the change in the hours of household labor

for married men and women with children?

METHODOLOGY

Sample

Data were used from the National Survey of Families and Households (NSFH)

waves one and two. Wave one is a probability sample of 13,017 age 19 and older in the

United States who were interviewed in person in 1987-88. Wave two consists of the

original NSFH sample who were reinterviewed five years later in 1992-94. The NSFH

survey oversampled several demographic categories, including single-parent families,

African Americans, Puerto Rican Americans, and Mexican Americans. To adjust for

oversampling, a statistical weight variable (WEIGHT) was used in this study in order to

replicate the demographic distribution of the Current Population Survey.

From the weighted NSFH probability sample, a sub-sample was created that

consisted of 1233 men and women who meet the following criteria: (a) had completed the

main interview, (b) were continuously married to the same spouse from wave one and

wave two, (c) were living in the same household as their spouse, (d) had one or more

biological children under 18 living in the household at wave one and wave two, and

(e) were employed at both wave one and wave two. Respondents with other living

arrangements (such as separation, divorce, cohabiting, single, etc.) were eliminated in

order to control for changes in family structure over time. Respondents who did not have

biological children were also eliminated to control for changes in the presence of children

over time. Children are an essential component as much of household labor is effected by

the presence of children (e.g., Hochschild, 1989, 1997). Employment was defined as having worked at least some time for an employer during a week.

There was a difference in the number of men and women in the sample, 769 men and 464 women. This may be due that fact the sub-sample was limited to employed men and women. Although the percentage of women in the workforce has been rising rapidly, the percentage of men in the workforce remains higher than women (Mishel, et. al, 1997). Thus, it may be that there were fewer employed women than employed men in the NSFH data set. However the analysis used in this study should not be biased by this difference and the sample is representative of employed married men and women with biological children in the U.S.

Sample Characteristics during Wave One

In wave one (see Table 1), men were approximately two years older (M = 35.6, SD = 6.7) than women (M = 33.5, SD = 6.9), t (953) = 5.50, p < .001. Men were also slightly more educated (M = 13.9, SD = 2.8) than women (M = 13.5, SD = 2.4), t (1088) = 2.91, p < .01.

Men reported more than 50 percent more individual income (measured in $1,000's) ($M$ = 29.1, SD = 22.9) than women (M = 13.7, SD = 9.3), t (1105) = 16.61, p < .001. When race was considered, white men reported more individual income (measured in $1,000's) ($M$ = 30.7, SD = 24.3) than white women (M = 13.1, SD = 9.5), t (915) = 16.37, p < .001. Men from all other races (non-white) also reported more

Table 1

Characteristics of Married Men and Women with Biological Children (Wave One)

Variables	Married Men			Married Women			t or χ²
	M or %	SD	n	M or %	SD	n	t or χ²
Age	35.7	6.7	769	33.5	6.9	464	5.50***
Education in years	13.9	2.8	769	13.5	2.4	464	2.91**
Income ($1,000s)							
Individual	29.1	22.9	769	13.7	9.3	464	16.61***
White	30.7	24.3	645	13.1	9.5	386	16.37***
All others[a]	21.1	10.5	123	16.1	7.8	78	3.82***
Number in Household	4.3	1.2	769	4.2	1.0	464	2.55*
Number of Children	2.1	1.1	769	2.0	0.9	464	1.49
Age of Youngest Child	4.3	3.6	769	4.9	3.6	464	-2.59*
Race/ethnicity							.13
White	84%		645	83%		386	
All others[a]	16%		123	17%		78	

Note. [a]All others includes African Americans, Hispanic Americans, Native Americans, and Asian Americans. [b]1 to 29 hours per week. [c]30 or more hours per week.
* p < .05. ** p < .01. *** p < .001.

individual income (measured in $1,000's) than (M = 21.1, SD = 10.5) than women from all

other races (non-white) (M = 16.1, SD = 7.8), t (194) = 3.82, p < .001.

Men reported a slightly higher household size (M = 4.3, SD = 1.2) than women

(M = 4.2, SD = 1.0), t (1099) = 2.55, p < .05. Men reported no difference in the number

of children (M = 2.1, SD = 1.1) from women (M = 2.0, SD = 0.9), t (1139) = 1.49,

p > .05). Women reported slightly older age of youngest child (M = 4.9, SD = 3.6) than

men (M = 4.3, SD = 3.6, t (980) = -2.59, p < .05). Men and women did not differ

significantly by race and ethnicity (χ^2 (1, N = 1233) = .13, p = .71). Eighty-four percent of

men were white, whereas 83 percent of women were white. Sixteen percent of men were

non-white, whereas 17 percent of women were non-white. Non-white races included

African Americans, Hispanic Americans, Native Americans, and Asian Americans.

Sample Characteristics during Wave Two

In wave two (see Table 2), men were approximately two years older (M = 41.4,

SD = 6.6) than women (M = 39.1, SD = 5.4), t (953) = 6.66, p < .001. Men were also

slightly more educated (M = 14.0, SD = 2.8) than women (M = 13.7, SD = 2.5),

t (1088) = 2.31, p < .05.

Overall, men reported more than 50 percent more individual income (measured in

$1,000's) (M = 36.2, SD = 28.8) than women (M = 20.4, SD = 19.8), t (1105) = 11.43,

p < .001. When race was considered, white men reported more individual income

(measured in $1,000's) (M = 38.4, SD = 30.0) than white women (M = 19.5, SD = 19.4),

t (915) = 12.22, p < .001. Men from all other races (non-white) did not differ in reported

individual income (measured in $1,000's) (M = 25.0, SD = 17.3) than women from all

other races (non-white) (M = 24.5, SD = 21.3), t (194) = 0.17, p > .05.

Men reported a slightly higher household size (M = 3.4, SD = 1.1) than women

(M = 3.3, SD = 1.0), t (1099) = 2.92, p < .01. Men reported a slightly higher number of

Table 2

Characteristics of Married Men and Women with Biological Children (Wave Two)

Variables	Married Men			Married Women			t or χ^2
	M or %	SD	n	M or %	SD	n	
Age	41.4	6.6	769	39.1	5.4	464	6.66***
Education in years	14.0	2.8	769	13.7	2.5	464	2.31*
Income ($1,000s)							
Individual	36.2	28.8	769	20.4	19.8	464	11.43***
White	38.4	30.0	645	19.5	19.4	386	12.22***
All others[a]	25.0	17.3	123	24.5	21.3	78	.17
Number in Household	3.4	1.1	769	3.3	1.0	464	2.92**
Number of Children	2.2	1.1	769	2.1	0.8	464	3.03**
Age of Youngest Child	8.5	4.6	769	9.0	4.8	464	-1.80
Race/ethnicity							.13
White	84%		645	83%		386	
All others[a]	16%		123	17%		78	

Note. [a]All others includes African Americans, Hispanic Americans, Native Americans, and Asian Americans. [b]1 to 29 hours per week. [c]30 or more hours per week.
* p < .05. ** p < .01. *** p < .001.

children (M = 2.2, SD = 1.1) from women (M = 2.1, SD = 0.8), t (1139) = 3.03, p <. 01.

Men did not differ in the reported age of youngest child (M = 8.5, SD = 4.6) than women

(M = 9.0, SD = 4.8), t (980) = -1.80, p > .05. Men and women did not differ significantly

by race and ethnicity (χ^2 (1, N = 1233) = .13, p = .71). Eighty-four percent of men were

white, whereas 83 percent of women were white. Sixteen percent of men were non-white, whereas 17 percent of women were non-white. Non-white races included African Americans, Hispanic Americans, Native Americans, and Asian Americans. Overall, the sample characteristics changed minimally between wave one and wave two.

Measures of Dependent Variables

Dependent variables were measures of self-reported time in household labor during wave one and wave two. Time in household labor was measured by a self-administered questionnaire in which respondents estimated the number of hours per week they normally spent in nine household tasks. These tasks were preparing meals, washing dishes, cleaning house, outdoor tasks, shopping, washing, and ironing clothes, auto maintenance, paying bills, and driving. When summed, these nine tasks yield the total number of hours in household tasks per week. Following previous work (e.g., Berk, 1985; Hall, Walker, & Acock, 1995), total number of reported hours in feminine tasks (preparing meals, washing dishes, cleaning house, and washing/ironing), masculine tasks (outdoor tasks and auto maintenance), and neutral tasks (shopping, paying bills, and driving) were also calculated as well as the total number of hours of household labor.

Respondents with missing data on all tasks were omitted. For respondents who had responses for at least one particular task, it was assumed that missing data on any particular task meant that they did not spend any time on that task and were recoded as zero. This procedure effected less than 4 percent of the sample.

Some respondents' mean household task hours were impossibly high. Approximately 2 percent of respondents reported more than 128 hours in household tasks per week (an average of more than 18 hours per day). For example, one women reported 815 hours in household tasks per week (an average of 116 hours per day). Although such estimates may represent the tendency for performing household tasks simultaneously (see Berheide, 1984), many of these overestimates are probably due to inaccuracies sometimes found in self-reported time use data (Shelton, 1992). To compensate for problems created by overestimates, all household task reports beyond 2 standard deviations above the mean were recoded to the mean number of hours for each gender, plus 2 standard deviations.

Although household labor frequently includes child care and the NSFH data set did measure time with children, controlling for the changes created by children entering and leaving the household over time created problems that were prohibitive. As a result, measures of household labor were limited to household tasks in the presence of children.

Measures of Independent Variables

Independent variables included measures of hours spent in employment at wave one and wave two. Number of hours of employment was measured as a continuous variable. Because men's and women's rising tendency to be continuously employed may limit the amount of measurable change between two points in time, employment hours was measured in two ways. First, employment hours were used regardless of the amount of change between wave one and wave two. Second, respondents that exhibited at least 1

hour of difference in employment hours per week between wave one and wave two were selected. This had the effect of removing 30% of respondents (from 1233 to 887) reporting employment hours. The results of the regression analyses were consistent in both approaches. Because there was little difference in the results of the two approaches, the first approach is reported here as it maximizes sample size and increases the generalizability of the sample.

Statistical Controls

Variables that were used as statistical controls included age in years, education in years, race, wage rate, age of youngest children, and gender. These controls were selected to adjust for standard socioeconomic factors and are common for analyses of market labor and household labor using NSFH data (e.g., Blair & Lichter, 1991; Hall, Walker, & Acock, 1995; Presser, 1994; South & Spitze, 1994). Furthermore, consistent with Presser's (1994) conclusions, both the role of income and gender were included in the study as variables in addition to time availability.

Individual wage rate was used instead income. Income tends to correlate with employment hours as income has a strong relationship with time spent in market labor. Wage rate eliminates this correlation by controlling for time, while preserving the effects of wage differences (Avery, Bryant, Douthitt, & McCullough, 1996). An individual wage rate per hour was calculated by dividing reported annual income by the product of reported employment hours per week multiplied by fifty-two weeks.

The effects of the presence of children were measured by age of youngest child. Various approaches were considered including household size, number of children, and age of child. Age of youngest child was most significantly related to household tasks ($p < .05$). All of the other approaches were not statistically significant.

The effects of gender were included as interaction effect. Gender was added to the lag regression equations by using dummy variable coding, with coded as zero and women coded as one. Gender was then multiplied by each independent variable and added to the each of the equations to test for interaction effects (Pedhazur, 1982).

Analysis

To test the hypothesis that the change in employment hours from wave one to wave two influences the change in household labor from wave one to wave two, two sets of lag regression analyses were conducted. The first utilized lag regressions without gender interaction effects. The second utilized lag regressions with gender interaction effects and separate regressions for men and women.

Lag Regression Analysis without Gender Interactions

A theoretical model was created to express the relationships between employment hours and household tasks (see Figure 1). This model expresses five key relationships. First, employment hours at wave one regressed on household tasks during wave one ($EHOUR_1 \rightarrow HTASK_1$). This replicates previous correlational analyses of employment

hours and household labor. Second, employment hours at wave one regressed on employment hours at wave two ($EHOUR_1 \rightarrow EHOUR_2$). This relationship describes the degree of stability in employment hours between wave one and wave two. Third, household tasks at wave one regressed on household tasks at wave two ($HTASK_1 \rightarrow HTASK_2$). This relationship describes the degree of stability in household tasks between wave one and wave two. Fourth, employment hours at wave one regressed on household tasks at wave two ($EHOUR_1 \rightarrow HTASK_2$). This relationship expresses the effects of employment hours at wave one on the change in household tasks between wave one and wave two. Fifth, employment hours at wave two regressed on household tasks at wave two ($EHOUR_2 \rightarrow HTASK_2$). This relationship expresses the effects of the change in employment hours between wave one and wave two on the change in household tasks between wave one and wave two.

Regression equations were estimated for each of these five relationships while controlling for age, education in years, race, hourly wage rate, and age of youngest child. Gender was not included in this stage of the analysis. Each set of regressions were estimated separately for feminine, masculine, neutral, as well as total household tasks.

The primary regression equation (i.e., $HTASK_2 = B_0 + B_1 * HTASK_1 + B_2 * EHOUR_1 + B_3 * EHOUR_2 + B_4 * AGE_2 + B_5 * ED_2 + B_6 * RACE + B_7 * WAGE_2 + B_8 * AYOC_2$) yielded unstandardized coefficients that express the effects of change in employment hours on the change in household tasks, as well as a coefficient expressing the effects of work at wave one on the change in household tasks, and a stability coefficient expressing the degree of stability that exists in household tasks between wave

Figure 1

Theoretical Model: Effects of Change in Employment Hours on Change in Household Tasks with Regression Equations

$$\text{EHOUR}_1 \longrightarrow \text{EHOUR}_2$$
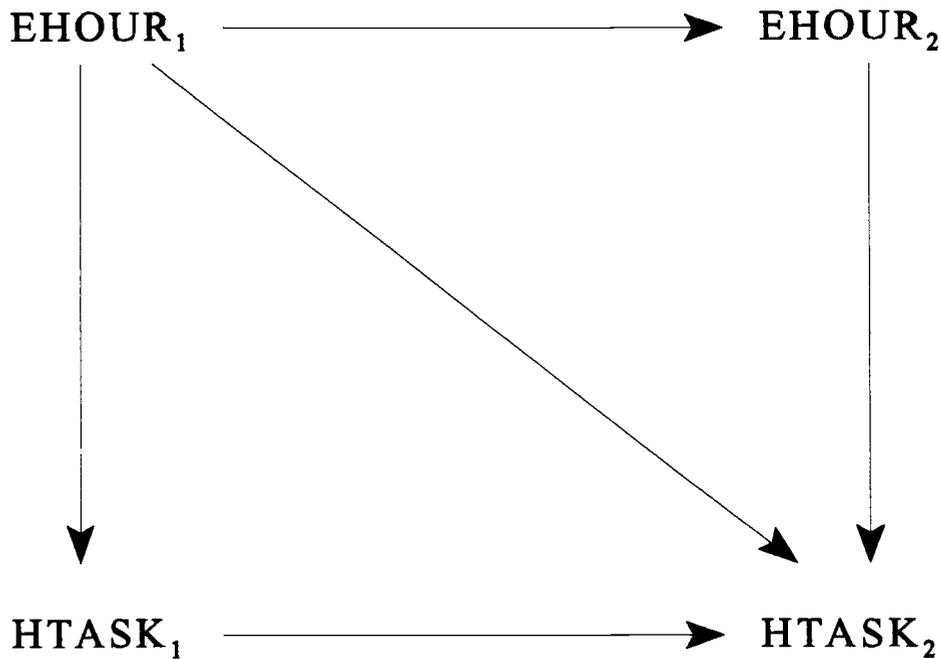
$$\text{HTASK}_1 \longrightarrow \text{HTASK}_2$$

Regression Equations

$\text{HTASK}_2 = B_0 + B_1 * \text{HTASK}_1 + B_2 * \text{EHOUR}_1 + B_3 * \text{EHOUR}_2 + B_4 * \text{AGE}_2 + B_5 * \text{ED}_2 + B_6 * \text{RACE} + B_7 * \text{WAGE}_2 + B_8 * \text{AYOC}_2$

$\text{EHOUR}_2 = B_0 + B_1 * \text{EHOUR}_1 + B_2 * \text{AGE}_2 + B_3 * \text{ED}_2 + B_4 * \text{RACE} + B_5 * \text{WAGE}_2 + B_6 * \text{AYOC}_2$

$\text{HTASK}_1 = B_0 + B_1 * \text{EHOUR}_1 + B_2 * \text{AGE}_1 + B_3 * \text{ED}_1 + B_4 * \text{RACE} + B_5 * \text{WAGE}_1 + B_6 * \text{AYOC}_1$

one and wave two (Kessler & Greenberg, 1981). The advantage of this approach is that it

can calculate how much one unit of change in employment hours affects time in household

labor.

Additional equations measure the effects of employment hours at wave one on

household tasks at wave one (i.e., $HTASK_1 = B_0 + B_1*EHOUR_1 + B_2*AGE_1 + B_3*ED_1 +$

$B_4*RACE + B_5*WAGE_1 + B_6*AYOC_1$) and produce a stability coefficient expressing the

degree of stability that exists in employment hours between wave one and wave two

(i.e., $EHOUR_2 = B_0 + B_1*EHOUR_1 + B_2*AGE_2 + B_3*ED_2 + B_4*RACE + B_5*WAGE_2 +$

B_6*AYOC_2). These three regressions express the results of the overall statistical model

that were used to test the hypothesis (see Figure 1). Descriptive statistics were also

calculated to assist in illustrating the relationships between variables in both waves of the

samples as well as the relationship between employment hours and household tasks.

Lag Regression Analysis with Gender Interactions

To measure the effects of gender on the theoretical model, gender was added as an

interaction effect to the model. Gender was coded as a dummy variable and gender

interaction variables were created for each independent variable, including controls. Thus,

each regression would include the standard independent variables as well as the gender

interaction variables. The lag regression analysis of the model was then rerun. The

advantage of this approach is that it tests for differences between two lag regression

equations (i.e., different statistical models for men and women) (Pedhazur, 1982). Where

gender interactions were found to be statistically significant with other predictor variables,

separate regression equations were generated for men and women so that significance

levels for the independent variables would be available for comparison.

RESULTS

The results of the descriptive statistics and lag regression analyses will be reported in the following sections. Additional results are summarized in Tables 1 through 8 and Figures 2 through 6.

Descriptive Statistics

Descriptive information for the variables used in the analysis can be found in Tables 1 through 6. Tables 1 and 2 provide means, standard deviations, percentages, and sample size for the demographic and control variables for wave one and wave two. Table 3 provides means, standard deviations, percentages, and sample size of the employment variables for wave one and wave two. Tables 4 and 5 provide means, standard deviations, percentages, and sample size of household task variables for waves one and wave two. Overall, the most interesting and distinctive patterns found in the descriptive statistics were in the areas of employment and household tasks, and in the total hours spent in work.

Employment Hours

During wave one (see Table 3), men reported greater employment hours (M = 46.3, SD = 10.0) than women (M = 34.5, SD = 12.7), t (805) = 17.14, p < .001. More women reported working part-time hours (34 percent) than men (2 percent),

Table 3

Employment Characteristics of Married Men and Women with Biological Children
(Wave One and Wave Two)

Variables	Married Men			Married Women			t or χ^2
	M or %	SD	n	M or %	SD	n	
Wave One							
Employment Hours	46.3	10.0	769	34.5	12.7	464	17.14***
Employment							246.90***
Employed Part-time[a]	2%		15	34%		158	
Employed Full-time[b]	98%		753	66%		306	
Wave Two							
Employment Hours	45.7	9.7	769	36.1	11.8	464	14.81***
Employment							161.70***
Employed Part-time[a]	3%		22	27%		126	
Employed Full-time[b]	97%		747	73%		338	

Note. [a]1 to 29 hours per week. [b]30 or more hours per week.
* $p < .05$. ** $p < .01$. *** $p < .001$.

χ^2 (1, N = 1233) = 246.90, $p < .001$. More men reported working full-time hours (98

percent) than women at wave one (66 percent), χ^2 (1, N = 1233) = 246.90, $p < .001$.

During wave two (see Table 3), men reported greater employment hours

(M = 45.7, SD = 9.7) than women (M = 36.1, SD = 11.8), t (837) = 14.81, $p < .001$.

Women reported more part-time hours (27 percent) than men at wave two (3 percent),

χ^2 (1, $\underline{N}$ = 1233) = 161.70, $\underline{p}$ < .001. Men reported more full-time hours (97 percent) than women at wave two (73 percent), χ^2 (1, $\underline{N}$ = 1233) = 161.70, $\underline{p}$ < .001.

Household Tasks

During wave one (see Table 4), women reported more household task hours ($\underline{M}$ = 37.0, $\underline{SD}$ = 21.4) than men ($\underline{M}$ = 17.2, $\underline{SD}$ = 11.2), $\underline{t}$ (618) = -18.51, $\underline{p}$ < .001. Women reported more hours spent in feminine tasks ($\underline{M}$ = 28.2, $\underline{SD}$ = 16.6) than men ($\underline{M}$ = 6.1, $\underline{SD}$ = 6.0), $\underline{t}$ (538) = -27.70, $\underline{p}$ < .001. Men reported more hours spent in masculine tasks ($\underline{M}$ = 7.0, $\underline{SD}$ = 5.6) than women ($\underline{M}$ = 1.9, $\underline{SD}$ = 2.8), $\underline{t}$ (1190) = 21.34, $\underline{p}$ < .001. Women reported more hours spent in neutral tasks ($\underline{M}$ = 6.8, $\underline{SD}$ = 5.0) than men ($\underline{M}$ = 4.0 $\underline{SD}$ = 3.4), $\underline{t}$ (727) = -10.69, $\underline{p}$ < .001.

During wave two (see Table 5), women reported more household task hours ($\underline{M}$ = 36.2, $\underline{SD}$ = 20.2) than men ($\underline{M}$ = 17.8, $\underline{SD}$ = 10.1), $\underline{t}$ (604) = -18.36, $\underline{p}$ < .001. Women reported more hours spent in feminine tasks ($\underline{M}$ = 27.0, $\underline{SD}$ = 16.0) than men ($\underline{M}$ = 6.9, $\underline{SD}$ = 5.9), $\underline{t}$ (540) = -25.93, $\underline{p}$ < .001. Men reported more hours spent in masculine tasks ($\underline{M}$ = 6.3, $\underline{SD}$ = 4.9) than women ($\underline{M}$ = 2.0, $\underline{SD}$ = 2.6), $\underline{t}$ (1201) = 21.25, $\underline{p}$ < .001. Women reported more hours spent in neutral tasks ($\underline{M}$ = 7.4, $\underline{SD}$ = 5.0) than men ($\underline{M}$ = 4.5, $\underline{SD}$ = 3.4), t (723) = -11.01, $\underline{p}$ < .001.

Overall, women's largest proportion of household tasks came from feminine tasks, 76.3 percent at wave one and 74.5 percent at wave two. Men's largest proportion of household tasks came from masculine tasks, 41.0 percent at wave one and 35.5 percent at

Table 4

Weekly Household Task Hours Reported by Men and Women (Wave One)

Variables	Married Men			Married Women			t or χ^2
	M or %	SD	n	M or %	SD	n	
Feminine tasks	35.5%		769	76.3%		464	
Preparing meals	2.0	2.5	769	9.5	6.2	464	-25.31***
Washing dishes	2.0	2.4	769	6.1	5.0	464	-16.85***
Cleaning house	1.6	2.0	769	8.2	6.9	464	-20.13***
Laundry	0.6	1.0	769	4.4	3.4	464	-23.71***
Total	6.1	6.0	769	28.2	16.6	464	-27.70***
Masculine tasks	41.0%		769	5.2%		464	
Outdoor work	5.2	4.5	769	1.8	2.7	464	16.89***
Maintaining auto	1.8	2.1	769	0.2	0.5	464	20.75***
Total	7.0	5.6	769	1.9	2.8	464	21.34***
Neutral tasks	23.5%		769	18.5%		464	
Shopping	1.3	1.3	769	2.8	2.0	464	-14.52***
Paying bills	1.4	1.8	769	1.7	1.8	464	-2.51*
Driving	1.4	2.0	769	2.4	2.8	464	-6.87***
Total	4.0	3.4	769	6.8	5.0	464	-10.69***
Total Household tasks	17.2	11.2	769	37.0	21.4	464	-18.51***

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5

Weekly Household Task Hours Reported by Men and Women (Wave Two)

Variables	Married Men			Married Women			t or χ^2
	M or %	SD	n	M or %	SD	n	
Feminine tasks	39.0%		769	74.5%		464	
Preparing meals	2.3	2.5	769	9.0	6.0	464	-22.53***
Washing dishes	2.0	2.0	769	5.8	4.6	464	-17.24***
Cleaning house	1.8	2.0	769	7.6	6.2	464	-19.40***
Laundry	0.8	1.3	769	4.7	3.5	464	-22.81***
Total	6.9	5.9	769	27.0	16.0	464	-25.93***
Masculine tasks	35.5%		769	5.0%		464	
Outdoor work	4.6	4.0	769	1.7	2.4	464	16.40***
Maintaining auto	1.7	1.7	769	0.2	0.5	464	23.12***
Total	6.3	4.9	769	2.0	2.6	464	21.25***
Neutral tasks	25.5%		769	20.5%		464	
Shopping	1.4	1.3	769	2.9	2.1	464	-14.90***
Paying bills	1.4	1.8	769	1.6	1.5	464	-1.90
Driving	1.7	2.0	769	2.9	3.0	464	-7.19***
Total	4.5	3.4	769	7.4	5.0	464	-11.01***
Total Household tasks	17.8	10.1	769	36.2	20.2	464	-18.36***

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

wave two. In contrast, women's smallest proportion of household tasks came from masculine tasks, 5.2 percent at wave one and 5.0 percent at wave two. Men's smallest proportion of household tasks came from neutral tasks, 23.5 percent at wave one and 25.5 percent at wave two (see Tables 4 and 5 for a more complete comparison).

Total Time Spent in Work

By taking the sum of mean employment hours and mean household task hours, it was estimated that women reported a longer work week at wave one (71.5 hours) and at wave two (72.3) than men had at wave one (63.5 hours) and wave two (63.5 hours). The differences between the mean work week hours for men and women were statistically significant at wave one (t (683) = - 6.62, p < .001) and at wave two (t (680) = - 7.89, p < .001). Using a 52 week work year, this implies that women worked 5.8 more male work weeks (using 63.5 hours as one work week) per year than men did at wave one and 6.3 more male work weeks (using 63.5 hours as one work week) at wave two. This is consistent with Hochschild's (1989) estimate that women may be working at least one month more than men a year. It is also comparable to earlier estimates of employed men and women's average work hours per week (see Meiners, 1984 and Walker & Woods, 1976 for reviews). However, in this sample, women's absolute and relative hours to men's increased slightly from wave one to wave two (71.5 to 72.3 hours) whereas men's remained basically unchanged (63.5 hours both waves).

<u>Lag Regression Analyses</u>

Regressions were used to analyze the effects of change in employment hours on

the change in household tasks and key relationships of the statistical model. Thirty-six

regressions were performed. Results for the regressions are reported in Tables 6-8. These

tables include R^2 values, unstandardized (B) and standardized (β) coefficients, and

significance levels. The results of the regressions may be summarized as follows.

Analysis of Lag Regressions without Gender Interactions

As Table 6 indicates (see Table 6), employment hours at wave one had a

statistically significant relationship with household tasks hours wave one for total

$(R^2 = .12, p < .001; B = -.48, \beta = -.32, p < .001)$, feminine $(R^2 = .19, p < .001; B = -.50,$

$\beta = -.40, p < .001)$, masculine $(R^2 = .07, p < .001; B = .08, \beta = .20, p < .001)$, and neutral

tasks $(R^2 = .05, p < .001; B = -.06, \beta = -.19, p < .001)$. These relationships exist after

controlling for age (at wave one), years of education (at wave one), race, hourly wage rate

(at wave one), and age of youngest child (at wave one). This means that for every one

hour increase in employment hours at wave one, household tasks hours at wave one

decreases by .48 hours for total tasks, by .50 hours for feminine tasks, and .06 hours for

neutral tasks. In contrast, a one hour increase in employment hours at wave one is related

to a .08 hour increase in masculine tasks. This supports the first key relationship in the

model, that employment hours at wave one are related to household tasks during wave

one $(EHOUR_1 \rightarrow HTASK_1)$.

The amount of stability in employment hours between wave one and wave two (see Table 6) was statistically significant ($R^2 = .24$, $p < .001$; B = .46, $\beta = .49$, $p < .001$). This regression expresses the degree of stability in employment hours between wave one and wave two. The statistically significant finding supports the second key relationship in the model, that employment hours remained relatively stable for married men and women between wave one and wave two ($EHOUR_1 \rightarrow EHOUR_2$). The regression controlled for age (at wave two), years of education (at wave two), race, hourly wage rate (at wave two), and age of youngest child (at wave two).

The amount of stability in household tasks (see Table 6) for total ($R^2 = .36$, $p < .001$; B = .47, $\beta = .51$, $p < .001$), feminine ($R^2 = .48$, $p < .001$; B = .57, $\beta = .61$, $p < .001$), masculine ($R^2 = .26$, $p < .001$; B = .39, $\beta = .44$, $p < .001$), and neutral tasks ($R^2 = .19$, $p < .001$; B = .39, $\beta = .39$, $p < .001$) between wave one and wave two were statistically significant. These regressions express the degree of stability in total, feminine, masculine, and neutral household tasks between wave one and wave two. The statistically significant finding supports the third key relationship in the model, that household tasks hours (even when gendered tasks are considered) remained relatively stable for married men and women between wave one and wave two ($HTASK_1 \rightarrow HTASK_2$). These regressions controlled for age (at wave two), years of education (at wave two), race, hourly wage rate (at wave two), and age of youngest child (at wave two).

The effect of employment hours at wave one on the change in household tasks (see Table 6) for masculine tasks was statistically significant ($R^2 = .26$, $p < .001$; B = .03, $\beta = .08$, $p < .01$). However, for total, feminine, and neutral tasks the effect of employment

Table 6

<u>Regression Results for Household Tasks (Wave One), Employment</u>
<u>Hours (Wave Two), and Household Tasks (Wave Two)</u>

Panel A: Total Household Tasks

	Outcome variables		
Predictor variable	$HTASK_1$	$EHOUR_2$	$HTASK_2$
Intercept	57.00***	21.36***	32.11***
$HTASK_1$	na	na	.47 (.51)***
$EHOUR_1$	-.48 (-.32)***	.46 (.49)***	-.01 (-.01)
$EHOUR_2$	na	na	-.26 (-.18)***
Age	-.19 (-.07)*	-.07 (-.04)	-.04 (-.01)
Education	-.33 (-.05)	.31 (.07)*	-.25 (-.04)
Race	.54 (.01)	.64 (.02)	1.34 (.03)
Wage Rate	-.01 (-.08)**	-.01 (-.04)	-.01 (-.06)*
Age of Youngest Child	.04 (.01)	.07 (.03)	-.18 (-.05)
R-square	.12***	.24***	.36***

<u>Note</u>. N = 1233. * p < .05. ** p < .01. *** p < .001.

Table 6 (continued)

Panel B: Feminine Household Tasks

Predictor variable	Outcome variables		
	$HTASK_1$	$EHOUR_2$	$HTASK_2$
Intercept	47.31***	21.36***	19.36***
$HTASK_1$	na	na	.57 (.61)***
$EHOUR_1$	-.50 (-.40)***	.46 (.49)***	.01 (.01)
$EHOUR_2$	na	na	-.20 (-.16)***
Age	-.27 (-.12)**	-.07 (-.04)	-.05 (-.02)
Education	-.11 (-.02)	.31 (.07)*	-.04 (-.01)
Race	.22 (.01)	.64 (.02)	.26 (.01)
Wage Rate	-.01 (-.13)***	-.01 (-.04)	-.01 (-.07)**
Age of Youngest Child	.16 (.04)	.07 (.03)	-.09 (-.03)
R-square	.19***	.24***	.48***

Note. $N = 1233$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 6 (continued)

Panel C: Masculine Household Tasks

Predictor variable	Outcome variables		
	$HTASK_1$	$EHOUR_2$	$HTASK_2$
Intercept	2.53*	21.36***	1.33
$HTASK_1$	na	na	.39 (.44)***
$EHOUR_1$	.08 (.20)***	.46 (.49)***	.03 (.08)**
$EHOUR_2$	na	na	.01 (.03)
Age	.07 (.09)**	-.07 (-.04)	.08 (.11)***
Education	-.24 (-.12)***	.31 (.07)*	-.25 (-.15)***
Race	-.81 (-.06)*	.64 (.02)	.22 (.02)
Wage Rate	.01 (.11)***	-.01 (-.04)	.01 (.04)
Age of Youngest Child	-.19 (-.13)***	.07 (.03)	-.06 (-.06)*
R-square	.07***	.24***	.26***

Note. N = 1233. * p < .05. ** p < .01. *** p < .001.

Table 6 (continued)

Panel D: Neutral Household Tasks

Predictor variable	Outcome variables		
	$HTASK_1$	$EHOUR_2$	$HTASK_2$
Intercept	7.15***	21.36***	6.66***
$HTASK_1$	na	na	.39 (.39)***
$EHOUR_1$	-.06 (-.19)***	.46 (.49)***	-.01 (-.01)
$EHOUR_2$	na	na	-.04 (-.12)***
Age	.01 (.01)	-.07 (-.04)	-.02 (-.03)
Education	.01 (.01)	.31 (.07)*	.03 (.02)
Race	1.13 (.09)***	.64 (.02)	.82 (.07)**
Wage Rate	-.01 (-.02)	-.01 (-.04)	-.01 (-.03)
Age of Youngest Child	.07 (.06)	.07 (.03)	-.06 (-.06)*
R-square	.05***	.24***	.19***

Note. N = 1233. * p < .05. ** p < .01. *** p < .001.

hours at wave one was not statistically significant (p > .05). These regressions test the efficacy of the fourth key relationship in the model, that employment hours at wave one effects the change in household tasks between wave one and wave two ($EHOUR_1 \rightarrow HTASK_2$), while controlling for age (at wave two), years of education (at wave two), race, hourly wage rate (at wave two), age of youngest child (at wave two), and employment hours (at wave two). The lack of statistically significant relationships (except for masculine tasks which was very small), suggest little support for the effects of employment hours at wave one on change in household tasks between wave one and wave two.

The effect of the change in employment hours on the change in household task hours (see Table 6) for total (R^2 = .36, p < .001; B = -.26, β = - .18, p < .001), feminine (R^2 = .48, p < .001; B = -.20, β = - .16, p < .001), and neutral tasks (R^2 = .19, p < .001; B = -.04, β = - .12, p < .001) were statistically significant. Masculine tasks were not statistically significant (p > .05). These regressions test the efficacy of the fifth key relationship in the model and the primary hypothesis in the study, that the change in employment hours between wave one and wave two effects the change in household tasks between wave one and wave two ($EHOUR_2 \rightarrow HTASK_2$). These regressions controlled for age (at wave two), years of education (at wave two), race, hourly wage rate (at wave two), and age of youngest child (at wave two). Although the effects were not statistically significant for masculine tasks, the effects of employment hours on household tasks were statistically significant for total, feminine, and neutral tasks. Thus, the results are generally consistent and supportive of the primarily hypothesis.

Figure 2 summarizes the results of the regression equations for the theoretical

model as a whole (see Figure 2). This figure includes the findings for total, feminine,

masculine, and neutral household tasks. With the exception of the relationship between

employment hours at wave one and the change in household tasks between wave one and

wave two (and the negative results for masculine tasks), the relationships in the four

versions of the model are consistent with the primary hypothesis that a change in

employment hours causes a change in household tasks for married men and women with

children. The model applied to household tasks suggests that a positive change (increase)

in employment hours causes a negative change (decrease) in household tasks. Using the

unstandardized coefficients, the results suggest that for every one hour increase in

employment hours there is a .26 hour (approximately 16 minutes) decrease in total

household tasks, a .20 hour (approximately 12 minutes) decrease in feminine household

tasks, a not statistically significant .01 hour (approximately 4 seconds) increase in

masculine household tasks, and a .04 hour (approximately 3 minutes) decrease in neutral

household tasks for men and women. These results provide positive support for the

theoretical model, suggesting that a change in employment hours causes a change in

household tasks.

Figure 2

Theoretical Model: Effects of Change in Employment Hours on Change in Household Tasks without Gender Interactions
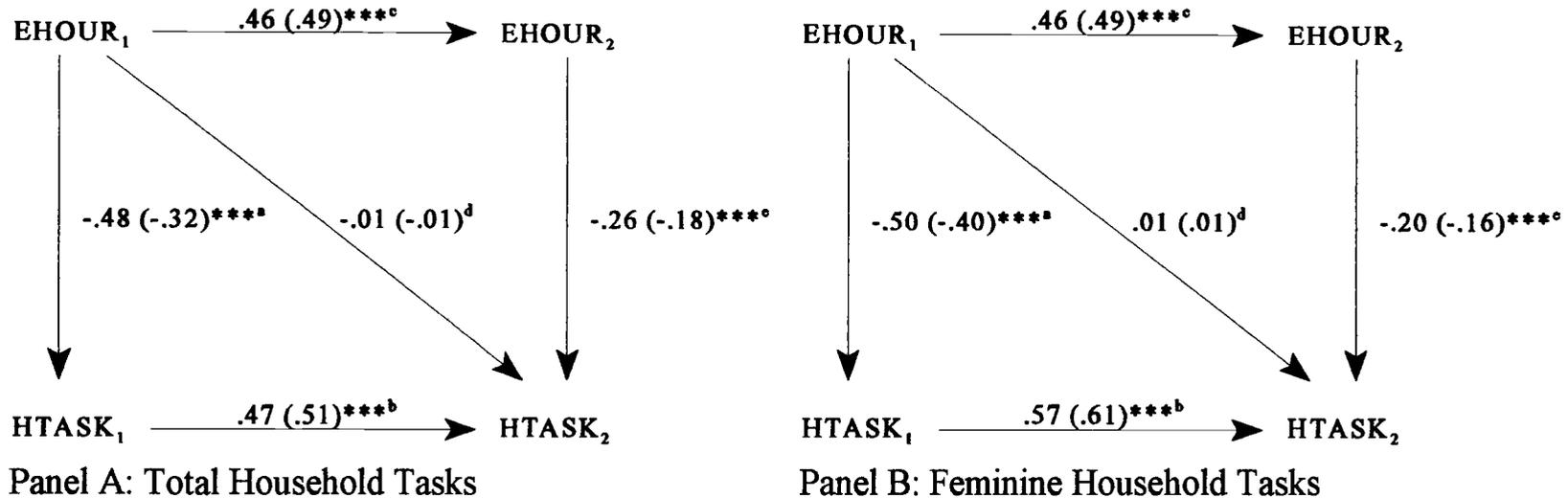
Panel A: Total Household Tasks

Panel B: Feminine Household Tasks

Note. $N = 1233$. [a]Correlational relationship of employment hours at wave one on household tasks at wave one. [b]Stability coefficient for the amount of change in household tasks between waves one and two. [c]Stability coefficient for the amount of change in employment hours between waves one and two. [d]Effect of employment hours at wave one on the change in household tasks. [e]Effect of change in employment hours on the change in household tasks. Figures include unstandardized beta, standardized beta (in parenthesis), and significance levels. * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 2 (continued)
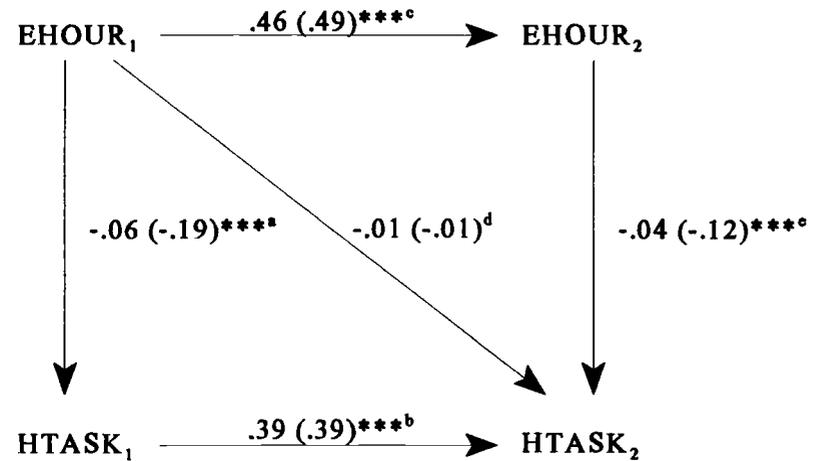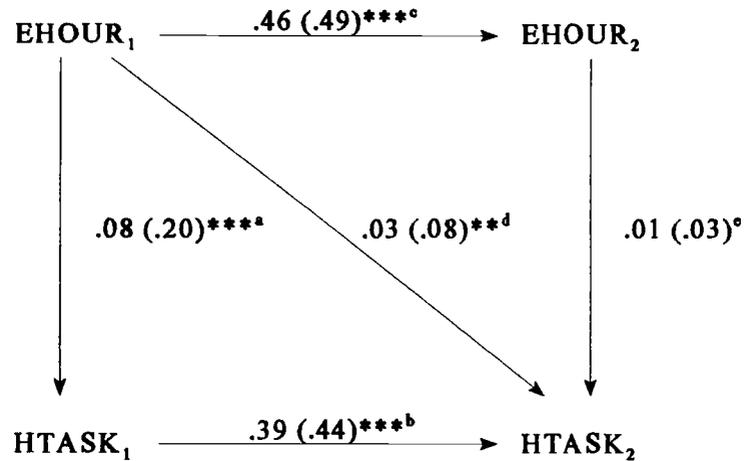
Panel C: Masculine Household Tasks

EHOUR$_1$ —— .46 (.49)***^{c} —→ EHOUR$_2$

.08 (.20)***^{a} .03 (.08)**^{d} .01 (.03)^e

HTASK$_1$ —— .39 (.44)***^{b} —→ HTASK$_2$

Panel D: Neutral Household Tasks

EHOUR$_1$ —— .46 (.49)***^{c} —→ EHOUR$_2$

-.06 (-.19)***^{a} -.01 (-.01)^d -.04 (-.12)***^{e}

HTASK$_1$ —— .39 (.39)***^{b} —→ HTASK$_2$

Note. N = 1233. [a]Correlational relationship of employment hours at wave one on household tasks at wave one. [b]Stability coefficient for the amount of change in household tasks between waves one and two. [c]Stability coefficient for the amount of change in employment hours between waves one and two. [d]Effect of employment hours at wave one on the change in household tasks. [e]Effect of change in employment hours on the change in household tasks. Figures include unstandardized beta, standardized beta (in parenthesis), and significance levels. * p < .05. ** p < .01. *** p < .001.

Analysis of Lag Regressions with Gender Interactions

Gender interaction effects were tested in addition to an analysis of the theoretical model alone. The main concern was whether gender interacted with regressions of employment hours after all other controls were included. By adding gender as an interaction effect to each of the predictor variables (where men were coded as zero and women were coded as one) to the previously calculated regressions, one can determine whether women differ statistically from men in how employment hours relate to household tasks over time.

As Table 7 indicates (see Table 7), all the regressions of gender interaction variables were statistically significant ($p < .001$). To begin with, the gender interaction of employment hours at wave one with household tasks at wave one ($EHOUR_1$ x GENDER $\rightarrow$ $HTASK_{1)}$ had a statistically significant relationship with household tasks hours wave one for total ($R^2 = .31$, $p < .001$; B = - .19, β = - .19, $p < .05$) and feminine ($R^2 = .52$, $p < .001$; B = -.18, β = - .22, $p < .01$), but not for masculine and neutral tasks ($p > .05$). These relationships exist after controlling for age (at wave one), years of education (at wave one), race, hourly wage rate (at wave one), and age of youngest child (at wave one). This means that for every one hour increase in employment hours at wave one, household tasks hours at wave one decreases by .19 hours (approximately 11.5 minutes) more for women's total tasks than men's, and by .18 hours (approximately 11 minutes) more for women's feminine tasks than men's. This suggests there are statistically significant differences between women and men in how employment

Table 7

Gender Interaction Regression Results for Household Tasks (Wave One),
Employment Hours (Wave Two), and Household Tasks (Wave Two)

Panel A: Total Household Tasks

| | Outcome variables | | |
Predictor variable	$HTASK_1$	$EHOUR_2$	$HTASK_2$
Intercept	17.47***	34.15***	14.14**
$HTASK_1$	na	na	.38 (.41)***
$EHOUR_1$	-.06 (-.04)	.34 (.36)***	.03 (.02)
$EHOUR_2$	na	na	-.06 (-.04)
GENDER	55.64 (1.46)***	-14.25 (-.60)**	24.67 (.70)**
$HTASK_1$ x GENDER	na	na	-.04 (-.06)
$EHOUR_1$ x GENDER	-.19 (-.19)*	.01 (.01)	.11 (.12)
$EHOUR_2$ x GENDER	na	na	-.21 (-.23)**
R-square	.31***	.30***	.43***

Note. $\underline{N}$ = 1233. Gender was coded as 0 for male and 1 for female. The results
for the control variables are not presented. The following variables were included
as controls: age, education, race, wage rate, age of youngest child, and gender.
* $\underline{p}$ < .05, ** $\underline{p}$ < .01, *** $\underline{p}$ < .001.

Table 7 (continued)

Panel B: Feminine Household Tasks

Predictor variable	Outcome variables		
	$HTASK_1$	$EHOUR_2$	$HTASK_2$
Intercept	4.30	34.15***	4.42
$HTASK_1$	na	na	.46 (.49)***
$EHOUR_1$	-.04 (-.03)	.34 (.36)***	.02 (.02)
$EHOUR_2$	na	na	-.02 (-.02)
GENDER	57.11 (1.78)***	-14.25 (-.60)**	26.56 (.88)***
$HTASK_1$ x GENDER	na	na	-.15 (-.17)*
$EHOUR_1$ x GENDER	-.18 (-.22)**	.01 (.01)	.09 (.11)
$EHOUR_2$ x GENDER	na	na	-.21 (-.28)***
R-square	.52***	.30***	.57***

Note. N = 1233. Gender was coded as 0 for male and 1 for female. The results for the control variables are not presented. The following variables were included as controls: age, education, race, wage rate, age of youngest child, and gender.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 7 (continued)

Panel C: Masculine Household Tasks

	Outcome variables		
Predictor variable	$HTASK_1$	$EHOUR_2$	$HTASK_2$
Intercept	11.49***	34.15***	8.36***
$HTASK_1$	na	na	.28 (.32)***
$EHOUR_1$	-.02 (-.04)	.34 (.36)***	.01 (.01)
$EHOUR_2$	na	na	-.02 (-.06)
GENDER	-8.69 (-.79)***	-14.25 (-.60)**	-7.69 (-.79)***
$HTASK_1$ x GENDER	na	na	.02 (.01)
$EHOUR_1$ x GENDER	.01 (.02)	.01 (.01)	-.01 (-.04)
$EHOUR_2$ x GENDER	na	na	.02 (.08)
R-square	.23***	.30***	.33***

Note. N = 1233. Gender was coded as 0 for male and 1 for female. The results for the control variables are not presented. The following variables were included as controls: age, education, race, wage rate, age of youngest child, and gender. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 7 (continued)

Panel D: Neutral Household Tasks

Predictor variable	Outcome variables		
	HTASK$_1$	EHOUR$_2$	HTASK$_2$
Intercept	1.68	34.15***	1.97
HTASK$_1$	na	na	.32 (.31)***
EHOUR$_1$	-.01 (-.03)	.34 (.36)***	.01 (.01)
EHOUR$_2$	na	na	-.01 (-.03)
GENDER	7.22 (.82)***	-14.25 (-.60)**	6.33 (.71)**
HTASK$_1$ x GENDER	na	na	.02 (.01)
EHOUR$_1$ x GENDER	-.02 (-.07)	.01 (.01)	.03 (.14)
EHOUR$_2$ x GENDER	na	na	-.02 (.098)
R-square	.13***	.30***	.24***

Note. N = 1233. Gender was coded as 0 for male and 1 for female. The results for the control variables are not presented. The following variables were included as controls: age, education, race, wage rate, age of youngest child, and gender.
* $p < .05$, ** $p < .01$, *** $p < .001$.

hours at wave one are related to household tasks during wave one

(EHOUR$_1$ → HTASK$_1$).

The gender interaction of the amount of stability in employment hours

(see Table 7) between wave one and wave two (EHOUR$_1$ x GENDER → EHOUR$_2$) was

not statistically significant (p > .05). This result suggests any differences between women

and men in the stability of employment hours (EHOUR$_1$ → EHOUR$_2$) are not statistically

significant. The regression controlled for age (at wave two), years of education (at wave

two), race, hourly wage rate (at wave two), and age of youngest child (at wave two).

The gender interaction of the amount of stability in household tasks (see Table 7)

between wave one and wave two (HTASK$_1$ x GENDER → HTASK$_2$) for feminine tasks

(R^2 = .57, p < .001; B = -.15, β = -.17, p < .05) was statistically significant. Gender

interactions of stability in total, masculine, and neutral task were not statistically

significant. Women's relative stability of feminine household tasks is .15 hours

(approximately 9 minutes) less than men's. These results suggest the women differ

statistically from men in the relative stability of feminine household tasks between wave

one and wave two (HTASK$_1$ → HTASK$_2$). These regressions controlled for age (at wave

two), years of education (at wave two), race, hourly wage rate (at wave two), and age of

youngest child (at wave two).

The gender interaction of employment hours at wave one on the change in

household tasks (EHOUR$_1$ x GENDER → HTASK$_2$) was not statistically significant (see

Table 7) for household tasks (total, feminine, masculine, and neutral) (p > 05). This

suggests that there are no statistically significant differences between women and men in

how employment hours at wave one effects the change in household tasks between wave one and wave two ($EHOUR_1 \rightarrow HTASK_2$). These regressions controlled for age (at wave two), years of education (at wave two), race, hourly wage rate (at wave two), age of youngest child (at wave two), and employment hours (at wave two).

The gender interactions of the change in employment hours on the change in household task hours ($EHOUR_2$ x $GENDER \rightarrow HTASK_2$) were statistically significant (see Table 7) for total ($R^2 = .43$, $p < .001$; B = -.21, $\beta = - .23$, $p < .01$) and feminine ($R^2 = .57$, $p < .001$; B = -.21, $\beta = - .28$, $p < .001$), but not for masculine or neutral tasks ($p > .05$). This means that for every one hour increase in employment hours, household tasks hours decreases by .21 hours (approximately 13 minutes) more for women's total tasks than men's, and by .21 hours (approximately 13 minutes) more for women's feminine tasks than men's. This suggests than women statistically differ from men in how the change in employment hours between wave one and wave two effects the change in household tasks between wave one and wave two ($EHOUR_2 \rightarrow HTASK_2$). These regressions controlled for age (at wave two), years of education (at wave two), race, hourly wage rate (at wave two), and age of youngest child (at wave two).

Separate Regressions for Men and Women

Separate regression equations for men and women were created for gender interaction regressions with statistically significant variables. The results for the separate regressions for men and women (see Table 8) of employment hours at wave one on

household tasks hours (EHOUR$_1$ → HTASK$_1$) were statistically significant for women's total (R^2 = .08, p < .001; B = -.26, β = - .15, p < .01) and feminine tasks (R^2 = .10, p < .001; B = -.22, β = - .17, p < .001), but not statistically significant for women's masculine and neutral tasks (p > .05). For men, none of the household task variables were statistically significant (p > .05). Thus, when men and women are analyzed separately, men do not have a statistically significant relationship between employment hours and household tasks at one point in time. However, women appear to have a statistically significant relationship between employment hours and total and feminine household tasks, but not masculine and neutral household tasks.

The results for the separate regression of employment hours at wave one on employment hours at wave two (EHOUR$_1$ → EHOUR$_2$) were statistically significant (see Table 8) for both men (R^2 = .15, p < .001; B = .34, β = .35, p < .001) and women (R^2 = .17, p < .001; B = .34, β = .37, p < .001). This suggests that both men and women reported the same degree of stability in employment hours between wave one and wave two.

The results for the separate regression of household tasks hours at wave one on household tasks hours at wave two (HTASK$_1$ → HTASK$_2$) were statistically significant (see Table 8) for men's total (R^2 = .19, p < .001; B = .38, β = .42, p < .001), feminine (R^2 = .23, p < .001; B = .46, β = .47, p < .001), masculine (R^2 = .15, p < .001; B = .28, β = .32, p < .001), and neutral tasks (R^2 = .14, p < .001; B = .32, β = .32, p < .001). For women, total (R^2 = .24, p < .001; B = .34, β = .36, p < .001), feminine (R^2 = .22, p < .001; B = .31, β = .32, p < .001),

Table 8

Separate Regression Results for Household Tasks (Wave One), Employment Hours (Wave Two), and Household Tasks (Wave Two)

Panel A: Total Household Tasks for Men and Women

Predictor variable	Outcome variables for Men			Outcome variables for Women		
	$HTASK_1$	$EHOUR_2$	$HTASK_2$	$HTASK_1$	$EHOUR_2$	$HTASK_2$
Intercept	17.47***	34.15***	14.14***	73.11***	19.91***	38.81***
$HTASK_1$	na	na	.38 (.42)***	na	na	.34 (.36)***
$EHOUR_1$	-.06 (-.06)	.34 (.35)***	.03 (.03)	-.26 (-.15)**	.34 (.37)***	.14 (.09)
$EHOUR_2$	na	na	-.06 (-.06)	na	na	-.27 (-.16)***
Age	.02 (.01)	-.20 (-.14)***	.02 (.01)	.04 (.01)	-.05 (-.02)	.27 (.07)
Education	.21 (.05)	.38 (.11)**	-.15 (-.04)	-2.05 (-.23)***	.22 (.05)	-.84 (-.10)*
Race	-.04 (-.01)	-.42 (-02)	2.00 (.07)*	4.45 (.08)	2.50 (.08)	1.40 (.03)
Wage Rate	.01 (.01)	-.01 (-.11)**	.01 (.04)	.01 (.02)	-.01 (-.01)	-.01 (-.13)**
Age of Youngest Child	-.30 (-.10)*	.05 (.02)	-.11 (-.05)	-.47 (-.08)	.33 (.13)	-.70 (-.17)***
R-square	.02	.15***	.19***	.08***	.17***	.24***

Note. N = 769 for Men. N = 457 for Women. *p < .05; ** p < .01; *** p < .001.

Table 8 (continued)

Panel B: Feminine Household Tasks for Men and Women

Predictor variable	Outcome variables for Men			Outcome variables for Women		
	$HTASK_1$	$EHOUR_2$	$HTASK_2$	$HTASK_1$	$EHOUR_2$	$HTASK_2$
Intercept	4.30*	34.15***	4.42*	61.40***	19.91***	30.98***
$HTASK_1$	na	na	.46 (.47)***	na	na	.31 (.32)***
$EHOUR_1$	-.04 (-.06)	.34 (.35)***	.02 (.03)	-.22 (-.17)***	.34 (.37)***	.11 (.08)
$EHOUR_2$	na	na	-.02 (-.04)	na	na	-.24 (-.17)***
Age	-.04 (-.04)	-.20 (-.14)***	-.01 (-.01)	-.01 (-.01)	-.05 (-.02)	.21 (.07)
Education	.41 (.19)***	.38 (.11)**	-.02 (-.04)	-1.77 (-.26)***	.22 (.05)	-.66 (-.10)*
Race	.22 (.01)	-.42 (-02)	.11 (.01)	2.99 (.07)	2.50 (.08)	1.49 (.04)
Wage Rate	-.01 (-.04)	-.01 (-.11)**	.01 (.03)	.01 (.03)	-.01 (-.01)	-.01 (-.14)**
Age of Youngest Child	-.12 (-.07)	.05 (.02)	-.06 (-.04)	-.54 (-.12)	.33 (.13)	-.52 (-.15)**
R-square	.04***	.15***	.23***	.10***	.17***	.22***

Note. N = 769 for Men. N = 457 for Women. *$p < .05$; ** $p < .01$; *** $p < .001$.

Table 8 (continued)

Panel C: Masculine Household Tasks for Men and Women

Predictor variable	Outcome variables for Men			Outcome variables for Women		
	$HTASK_1$	$EHOUR_2$	$HTASK_2$	$HTASK_1$	$EHOUR_2$	$HTASK_2$
Intercept	11.49***	34.15***	8.36***	2.81**	19.91***	.67
$HTASK_1$	na	na	.28 (.32)***	na	na	.30 (.34)***
$EHOUR_1$	-.02 (-.03)	.34 (.35)***	.01 (.01)	-.01 (-.05)	.34 (.37)***	-.01 (-.02)
$EHOUR_2$	na	na	-.02 (-.05)	na	na	-.01 (-.02)
Age	.03 (.03)	-.20 (-.14)***	.03 (.04)	.01 (.03)	-.05 (-.02)	.06 (.13)
Education	-.29 (-.14)***	.38 (.11)**	-.31 (-.18)***	-.06 (-.05)	.22 (.05)	-.07 (-.07)
Race	-1.36 (-.09)*	-.42 (-02)	.44 (.03)	-.14 (-.02)	2.50 (.08)	-.27 (-.04)
Wage Rate	.01 (.02)	-.01 (-.11)**	.01 (.03)	-.01 (-.03)	-.01 (-.01)	-.01 (-.07)
Age of Youngest Child	-.15 (-.09)*	.05 (.02)	-.02 (-.02)	-.01 (-.01)	.33 (.13)	-.03 (-.05)
R-square	.02**	.15***	.15***	.01	.17***	.15***

Note. N = 769 for Men. N = 457 for Women. *p < .05; ** p < .01; *** p < .001.

Table 8 (continued)

Panel D: Neutral Household Tasks for Men and Women

Predictor variable	Outcome variables for Men			Outcome variables for Women		
	$HTASK_1$	$EHOUR_2$	$HTASK_2$	$HTASK_1$	$EHOUR_2$	$HTASK_2$
Intercept	1.68	34.15***	1.97***	8.90***	19.91***	8.30***
$HTASK_1$	na	na	.32 (.32)***	na	na	.35 (.35)***
$EHOUR_1$	-.01 (-.03)	.34 (.35)***	.01 (.01)	-.03 (-.07)	.34 (.37)***	.03 (.09)
$EHOUR_2$	na	na	-.01 (-.03)	na	na	-.03 (-.08)
Age	.04 (.07)	-.20 (-.14)***	.01 (.01)	.04 (.05)	-.05 (-.02)	.01 (.01)
Education	.09 (.08)	.38 (.11)**	.10 (.08)	-.23 (-.11)*	.22 (.05)	-.13 (-.07)
Race	1.10 (.12)**	-.42 (-02)	1.38 (.15)***	1.60 (.12)**	2.50 (.08)	.21 (.02)
Wage Rate	.01 (.07)	-.01 (-.11)**	.01 (.02)	.01 (.02)	-.01 (-.01)	-.01 (-.06)
Age of Youngest Child	-.03 (-.03)	.05 (.02)	-.03 (-.05)	.07 (.05)	.33 (.13)	-.17 (-.16)**
R-square	.03***	.15***	.14***	.03*	.17***	.16***

Note. Note. N = 769 for Men. N = 457 for Women. *p < .05; ** p < .01; *** p < .001.

masculine ($R^2 = .15$, $p < .001$; B = .30, $\beta = .34$, $p < .001$), and neutral ($R^2 = .16$, $p < .001$; B = .35, $\beta = .35$, $p < .05$) household tasks were also statistically significant. Even when analyzed separately, both men and women continued to report stability in all four kinds of household tasks between wave one and wave two.

The results for the separate regression of employment hours at wave one on employment hours at wave two ($EHOUR_1 \rightarrow HTASK_2$) were not statistically significant (see Table 8) for any of the four household task categories among either men or women ($p > .05$). This is consistent with the previous pattern demonstrated in the lag regressions without gender interaction effects. This suggests that there is little if any connection between employment hours at wave one and household tasks at wave two after controlling for relevant variables, including gender.

The results for the separate regression of employment hours at wave two on household tasks at wave two ($EHOUR_2 \rightarrow HTASK_2$) were statistically significant (see Table 8) for women's total ($R^2 = .24$, $p < .001$; B = -.27, $\beta = -.16$, $p < .01$) and feminine tasks ($R^2 = .22$, $p < .001$; B = -.24, $\beta = -.17$, $p < .001$). Masculine and neutral tasks were not statistically significant ($p > .05$) for women, nor were any of the four household tasks statistically significant ($p > .05$) for men. This suggests that when gender is controlled, men do not have a statistically significant relationship between the change in employment hours and the change in household tasks. However, women appear to have a statistically significant relationship between changes in employment hours and changes in total and feminine household tasks, but not changes in masculine and neutral household tasks. This
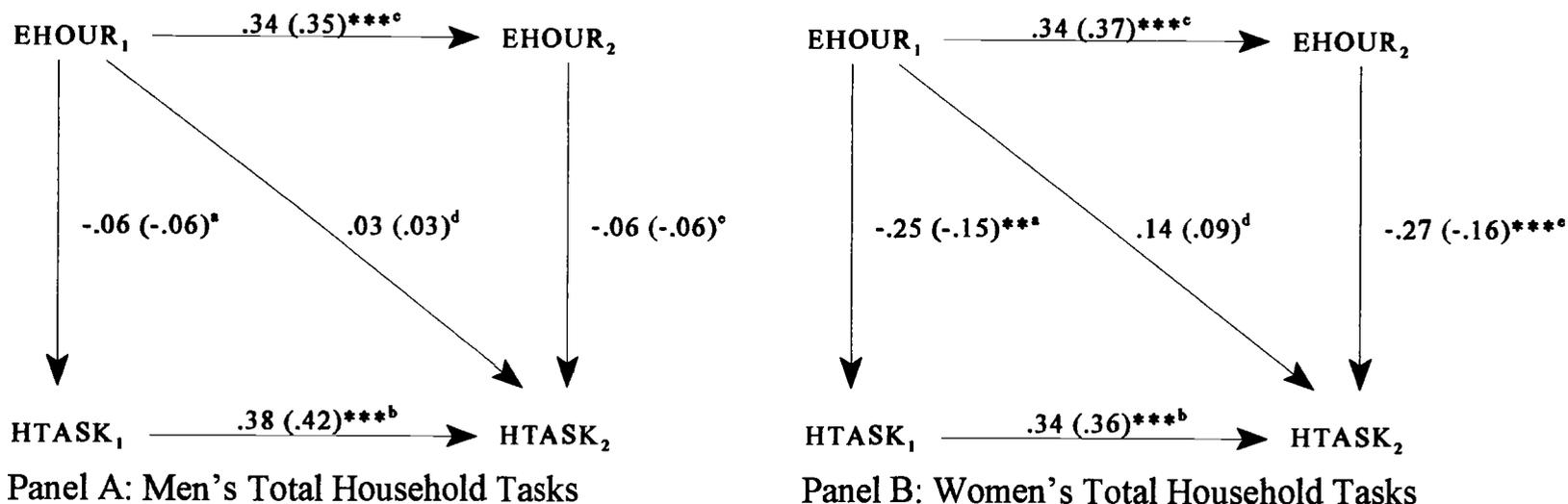
may be due to the fact that feminine tasks have a much greater frequency than all other categories of household tasks.

Figures 3 through 6 summarize the results of the separate regression equations for the theoretical model. Figure 3 summaries the findings for total household tasks for men and women (see Figure 3). Figure 4 summaries the findings for feminine household tasks for men and women (see Figure 4). Figure 5 summaries the findings for masculine household tasks for men and women (see Figure 5). Lastly, Figure 6 summaries the finding for neutral household tasks for men and women (see Figure 6).

Overall, the results suggest that when gender is controlled for as an interaction effect and men and women analyzed separately, the model continues to be supported but with some important changes. It appears (as the literature review suggested previously) that gender has a powerful predictive role in explaining the relationships between employment hours and household tasks hours for men and women. In the lag regressions without gender interaction effects, the model is generally supported for total, feminine, and neutral tasks, but not for masculine tasks. In the lag regressions with gender interaction effects and separate equations for men and women, the model is supported for women, but only for total and feminine tasks. Moreover, the model ceases to be supportive for men's household tasks. This strongly suggests that there is a relationship between employment hours and household task hours (in a correlational relationship at one point in time) and that there is a relationship between the change in employment hours and household task hours (in a causal relationship over two points in time). However, it
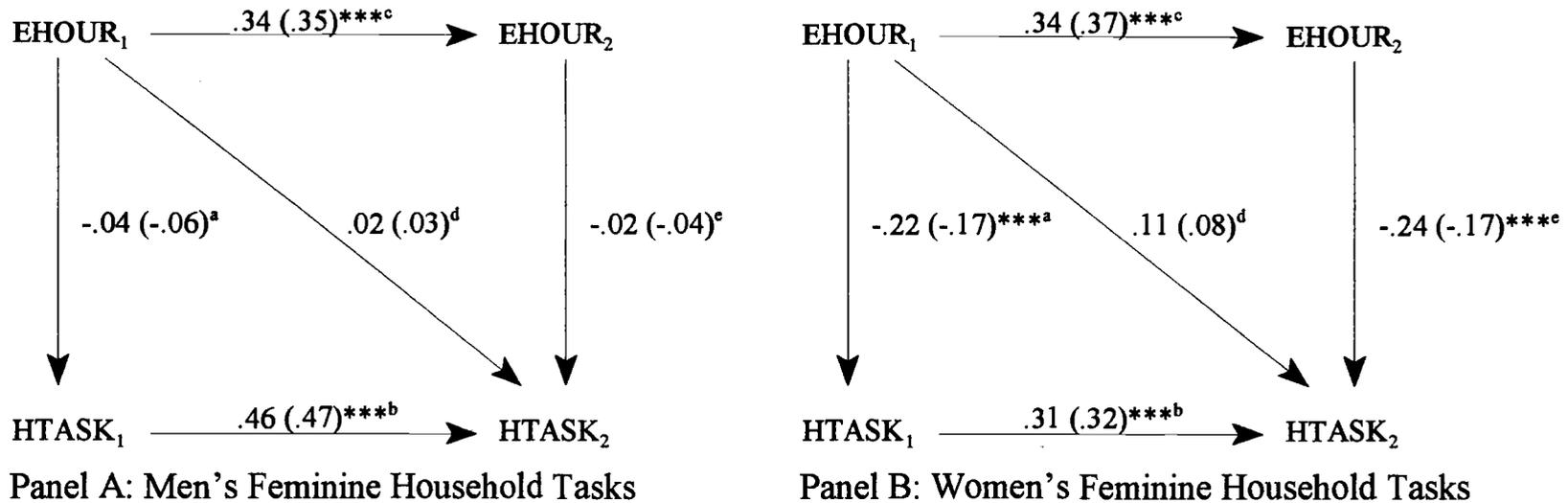
Figure 3

$EHOUR_1$ ──.34 (.35)***[c]──▶ $EHOUR_2$

−.06 (−.06)[a]   .03 (.03)[d]   −.06 (−.06)[c]

$HTASK_1$ ──.38 (.42)***[b]──▶ $HTASK_2$

Panel A: Men's Total Household Tasks

$EHOUR_1$ ──.34 (.37)***[c]──▶ $EHOUR_2$

−.25 (−.15)**[a]   .14 (.09)[d]   −.27 (−.16)***[c]

$HTASK_1$ ──.34 (.36)***[b]──▶ $HTASK_2$

Panel B: Women's Total Household Tasks

Note. N = 769 for Men. N = 464 for Women. [a]Correlational relationship of employment hours at wave one on household tasks at wave one. [b]Stability coefficient for the amount of change in household tasks between waves one and two. [c]Stability coefficient for the amount of change in employment hours between waves one and two. [d]Effect of employment hours at wave one on the change in household tasks. [e]Effect of change in employment hours on the change in household tasks. Figures include unstandardized beta, standardized beta (in parenthesis), and significance levels. * $p < .05$. ** $p < .01$. *** $p < .001$.
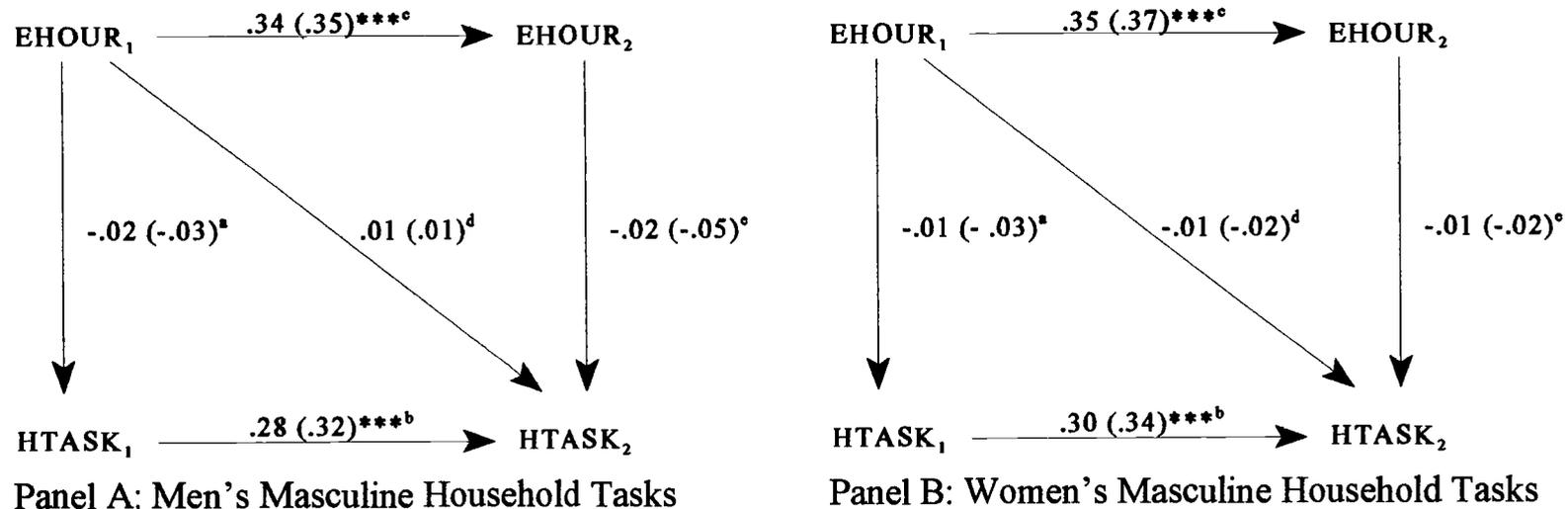
Figure 4

Theoretical Model: Effects of Change in Employment Hours on Change in Feminine Household Tasks Separated by Gender

$EHOUR_1$ —— .34 (.35)***c ——→ $EHOUR_2$

−.04 (−.06)a   .02 (.03)d   −.02 (−.04)e

$HTASK_1$ —— .46 (.47)***b ——→ $HTASK_2$

Panel A: Men's Feminine Household Tasks

$EHOUR_1$ —— .34 (.37)***c ——→ $EHOUR_2$

−.22 (−.17)***a   .11 (.08)d   −.24 (−.17)***e

$HTASK_1$ —— .31 (.32)***b ——→ $HTASK_2$

Panel B: Women's Feminine Household Tasks

Note. N = 769 for Men. N = 464 for Women. [a]Correlational relationship of employment hours at wave one on household tasks at wave one. [b]Stability coefficient for the amount of change in household tasks between waves one and two. [c]Stability coefficient for the amount of change in employment hours between waves one and two. [d]Effect of employment hours at wave one on the change in household tasks. [e]Effect of change in employment hours on the change in household tasks. Figures include unstandardized beta, standardized beta (in parenthesis), and significance levels. * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 5

Theoretical Model: Effects of Change in Employment Hours on Change in Masculine Household Tasks Separated by Gender

Panel A: Men's Masculine Household Tasks   Panel B: Women's Masculine Household Tasks

Note. N = 769 for Men. N = 464 for Women. [a]Correlational relationship of employment hours at wave one on household tasks at wave one. [b]Stability coefficient for the amount of change in household tasks between waves one and two. [c]Stability coefficient for the amount of change in employment hours between waves one and two. [d]Effect of employment hours at wave one on the change in household tasks. [e]Effect of change in employment hours on the change in household tasks. Figures include unstandardized beta, standardized beta (in parenthesis), and significance levels. * $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 6

Theoretical Model: Effects of Change in Employment Hours on Change in Neutral Household Tasks Separated by Gender
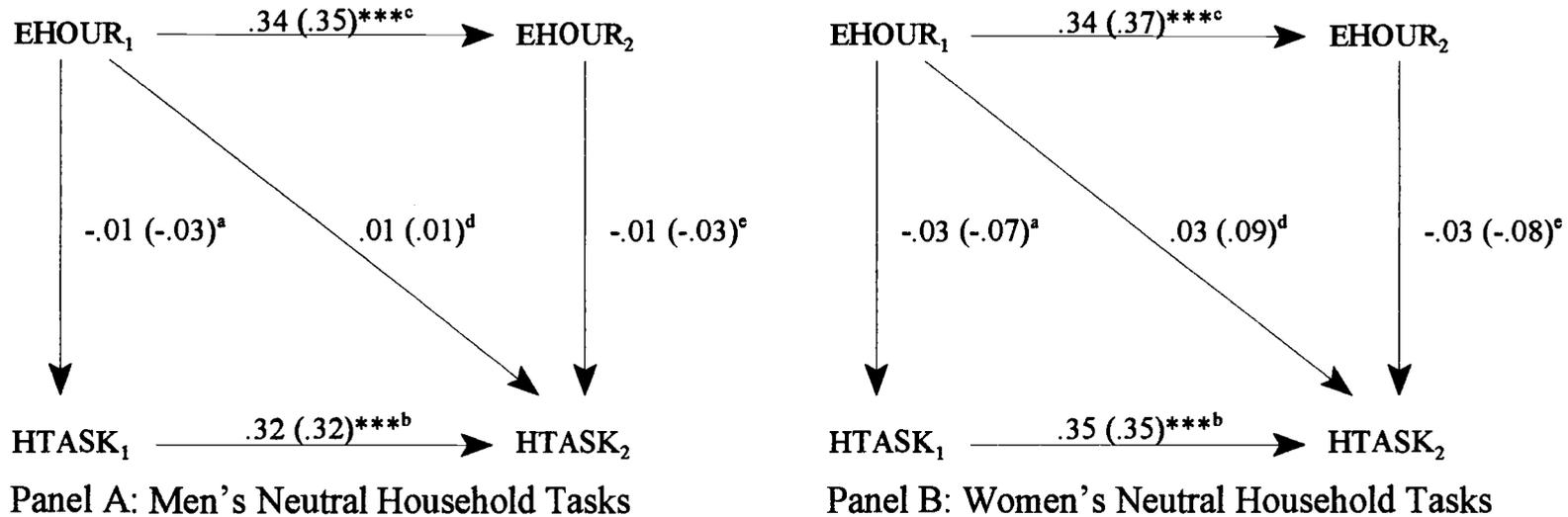
Panel A: Men's Neutral Household Tasks

Panel B: Women's Neutral Household Tasks

Note. N = 769 for Men. N = 464 for Women. [a]Correlational relationship of employment hours at wave one on household tasks at wave one. [b]Stability coefficient for the amount of change in household tasks between waves one and two. [c]Stability coefficient for the amount of change in employment hours between waves one and two. [d]Effect of employment hours at wave one on the change in household tasks. [e]Effect of change in employment hours on the change in household tasks. Figures include unstandardized beta, standardized beta (in parenthesis), and significance levels. * $p < .05$. ** $p < .01$. *** $p < .001$.

appears that when gender is controlled, these relationships hold primarily for women and for household work traditionally associated with women (feminine household tasks). The model applied to women's total household tasks (which would be strongly influenced by the inclusion of feminine household tasks) suggests that a positive change (increase) in employment hours causes a negative change (decrease) in total household tasks. Using the unstandardized coefficients, the results suggest that for every one hour increase in women's employment hours there is a .27 hour (approximately 16 minutes) decrease in women's total household tasks. For women's feminine household tasks alone, a positive change (increase) in employment hours causes a negative change (decrease) in feminine household tasks. Using the unstandardized coefficients, this suggests that for every one hour increase in women's employment hours there is a .23 hour (approximately 14 minutes) decrease in women's feminine household tasks. Thus, the regression relationships tested here provide positive support for a theoretical model for women suggesting that a change in women's employment hours may indeed cause a change in women's total and feminine household tasks.

DISCUSSION

The purpose of this study was to explore the longitudinal relationship between market labor and household labor of married men and women. This was done by examining the hypothetical relationship between the change in employment hours and the change in hours spent on household tasks by married men and women with children. Descriptive statistics and lag regression analyses were used to test a theoretical model of the relationship between employment hours and household tasks. Lag regressions were performed with and without gender interaction effects.

The study was conducted in order increase the number of longitudinal studies examining the relationships between market labor and household labor among men and women (see Coverman & Sheley, 1986 and Nickols & Metzen, 1982 for exceptions); and the need to study the time availability perspective longitudinally. The study builds on previous research suggesting that involvement in household tasks declines as employment hours rise (Coverman & Shelly, 1986; Kalleberg & Rosenfeld, 1990; Shelton & John, 1996); and that gender influences how families divide market and household labor (Ferree, 1990; Thompson & Walker, 1989).

This study furthers scientific understanding of market labor relationship to household labor among men and women because it contributes to our understanding of how married men and women adjust their household labor participation according to available time as measured by hours of employment. It also considers the role of income and gender in relation to available time as suggested by Presser (1994). The findings of

this study may be understood by looking at four separate categories of results patterns in men's and women's work, patterns without gender interactions, patterns with gender interactions, and patterns in the statistical controls.

Patterns in Men's and Women's Work

The most salient and distinctive patterns found in the descriptive statistics were in the areas of employment and household tasks, and in the total hours spent in work. With regard to employment, men reported more full-time employment hours than women at both wave one and wave two. Women also reported more part-time employment hours than men at both wave one and wave two. This pattern is typical of employment patterns found for men and women (Kalleberg & Rosenfeld, 1990; Mishel, et. al, 1997).

For household tasks, women did nearly twice the amount of household work than men do. Women's largest proportion of household tasks came from feminine tasks at both wave one and wave two. Men's largest proportion of household tasks came from masculine tasks both at wave one and at wave two. In contrast, women's smallest proportion of household tasks came from masculine tasks both at wave one and wave two. Men's smallest proportion of household tasks came from neutral tasks both at wave one and wave two. Furthermore, this is consistent with patterns often found for divisions of household labor between men and women (Berk, 1985; Hall, Walker, Acock, 1995; Thomas & Walker, 1989).

Regarding total work performed by men and women, it was found that women worked between 6 to 8 weeks more per year than men did. This is consistent with Hochschild's (1989) estimate that women may be working at least one month more than men a year, and earlier estimates of weekly work hours (e.g., Meiners, 1984; Walker & Woods, 1976). It also suggests that women continue to have less leisure and discretionary time than men (Shelton, 1992).

Patterns without Gender Interactions

The results of this study are consistent with the hypothesis that a change in employment hours causes a change in household tasks. While controlling for age, education, race, hourly wage rate, and age of youngest child (but not for gender), regressions for total, feminine, and neutral (but not masculine) household tasks suggest that a positive change in employment hours causes a negative change in household tasks.

For instance, the regression results without gender for total, feminine, masculine, and neutral household tasks demonstrate that for every one hour increase in employment hours there is a .26 hour (approximately 16 minutes) decrease in total household tasks, a .20 hour (approximately 12 minutes) decrease in feminine household tasks, a not statistically significant .01 hour (approximately 4 seconds) increase in masculine household tasks, and a .04 hour (approximately 3 minutes) decrease in neutral household tasks for married men and women with children.

Overall, these findings confirm patterns found in previous correlational studies of employment hours and household tasks (Acock & Demo, 1994; Blair & Lichter, 1991; Brayfield, 1992; Coltrane & Ishii-Kuntz, 1992; Coverman, 1985; Demo & Acock, 1993; Kamo, 1988; Rexroat & Shelton, 1987; South & Spitze, 1994). Furthermore, it suggests that time availability as measured by employment hours has significant effects on household tasks after controlling for relative resources such as income and education (Presser, 1994).

Patterns with Gender Interactions

However, these results alone do not consider the possible interaction effects of gender on employment hours and household tasks. Regression analyses testing for gender interaction effects found statistically significant differences between men and women for the effects of change in employment hours on the change in total, feminine, but not masculine and neutral household tasks. Separate regression equations were calculated for men and women. The results indicate provocative patterns consistent with the gender perspective.

When the effects of gender are considered the effects of change in employment hours on the change in household tasks appears to be much larger for women than for men. Regarding total household tasks, the lag regression equation for women's total household tasks suggests that a one hour increase in employment hours results in a .27 hour (approximately 16 minutes) decrease in total household tasks for women. The lag

regression equation for men's total household tasks suggests that a one hour increase in employment hours results in a not statistically significant .06 hour (approximately 4 minutes) decrease in total household tasks for men.

Regarding feminine household tasks, the lag regression equation for women's feminine household tasks suggests that a one hour increase in employment hours results in a .23 hour (approximately 14 minutes) decrease in total household tasks for women. The lag regression equation for men's total household tasks suggests that a one hour increase in employment hours results in a not statistically significant .02 hour (approximately 1 minute) decrease in total household tasks for men.

For masculine tasks and neutral tasks, although the lag regressions with gender interactions were statistically significant ($p < .001$), the effects of change in employment hours on the change in masculine and neutral tasks were not statistically significant for men or women ($p > .05$).

Overall, the results of the lag regressions controlling for gender tend to support time availability hypothesis for women and the gender perspective. It also confirms the patterns found in previous correlational studies of women's employment hours and household tasks (Acock & Demo, 1994; Blair & Lichter, 1991; Brayfield, 1992; Demo & Acock, 1993; Rexroat & Shelton, 1987) and the role of gender in explaining men and women's participation in household tasks (Blair & Lichter, 1991; Brayfield, 1992; Hochschild, 1989; Kamo, 1988; Presser, 1994; Ross, 1987; Shelton & John, 1996). Furthermore, it revealed a 44 minute time bind for women that apparently does not exist for men.

Patterns in the Statistical Controls

In addition to the results for employment hours and household tasks, the lag

regressions with gender interaction effects also revealed some significant patterns among

the controls that, albeit peripheral to the hypothesis, need to be mentioned. When gender

was controlled for as an interaction effect, three statistical controls were statistically

significant for women but not for men. To begin with, education, hourly wage rate, and

age of youngest children were all statistically significant for women's total, feminine, and

neutral household tasks ($p < .05$). In each case, the relationships were negative, that is, for

a one unit increase in education (or hourly wage rate, or age of youngest child) there was

a decrease in reported household task hours. Furthermore, for women's masculine

household tasks, only education was statistically significant as a control ($p < .05$).

However, in this case, the relationship is positive, that is, for a one unit increase in

education there is a increase in reported masculine household task hours. There were no

such patterns in the statistical controls for men or for the lag regressions without gender

interactions.

The fact that the more educated women are, the less household tasks they perform,

is consistent with the liberalizing effect of education with regards to household tasks (Blair

& Lichter, 1991; Coverman, 1985; Farkas, 1976; Presser, 1994; Shelton & John, 1993).

Also, the effect of wage rates for women also fits with gender patterns such as women

having lower income than men (Brines, 1994; McLanahan & Booth, 1989; Shelton &

John, 1996), having to split resources between the market and the household (Hochschild,

1989, 1997; Thomas & Walker, 1989), and using wage rates in decision making of how to divide their labor (Becker, 1991; Berk & Berk, 1983). Lastly, women have historically held greater responsibility for child care and therefore would be more affected than men by the decline in the amount of required household tasks that occurs as children age (Kalleberg & Rosenfeld, 1990; McLanahan & Booth, 1989).

<u>Limitations</u>

Although this study improves our understanding of the nature of relationships between employment hours and household tasks hours for married men and women with children, the study is limited in its applications by a number of factors. First, the study is limited by the lack of high quality couple data. Although it is natural to extend these findings to couples, the fact remains that the results were derived from married individuals (i.e., the married men and women were not married to each other). Hence, the generalizability of the study is diminished by the fact that the dynamics of time relationships between married couples living together were not included in this study. It is possible additional explanations for these results would have be found, had data from each individual's spouse been included. However, the results are consistent with past research studies, many of which has used both couple and individual data.

Second, another limitation is the absence of child care factors being included in measures of household tasks. Clearly, this important factor needs to included in the study of family work whenever possible as previous research indicates. In this study, child care

data could not be used to advantage due to resource limits on the project and was not included as a result.

Third, another limitation is the use of estimated recall data. Because the respondents much estimate how much time is spent on market and household tasks per week, errors are made. Furthermore, there may be a gender bias in how men and women estimate their time use in household tasks.

Fourth, although this study identifies gender as a powerful explanation for why men and women differ in their relationship between changes in employment hours and changes in household task hours, it cannot explain the gender processes that create these differences. Data that allows for the analysis of the dialogue between men and women about family work would be needed.

Recommendations for Future Research

Based on the findings of this study, several recommendations for future research can be made. First, future studies should include a longitudinal design where possible to ensure that the effects of change are considered in the relationship between employment hours and household tasks. Second, future studies should continue to explore the role of time availability, income, and gender with regard to employment hours and household tasks. Third, future research should consider replicating these findings on other populations such as single parents, couples without children, blended families, retired couples, etc. Fourth, future researchers need to consider improving the quality of couple

and child care data collected along with market and household labor data. Given the complexity and depth of research that uses time use or gender data, accurate and complete data (such as time diaries or records of gender processes) are necessary for any meaningful analysis or conclusions to be made. This should specifically include data that allows for the detailed analysis of the gender dialogue that men and women use to negotiate market and household labor divisions. This process is key to explaining why changes in employment hours affects household tasks hours. Such data would allow future researchers to ask important questions such as: Why do women experience a time bind and men do not? Or, do women experience more resentment over family work issues than men because of the time bind? Or, what do women sacrifice to make up for the time bind?

With regards to the study of relationships between market and household labor, the field may approaching the point that little meaningful progress can be made without comprehensive studies that include longitudinal designs; multiple factors such as time availability, income, and gender; improvements in how time use and gender data is collected; and utilize complete information regarding married couples living together and the real demands of children in families. It is hoped that the results of this study will encourage a renewed interest in such comprehensive, longitudinal designs applied to work and family issues.

<u>Conclusion</u>

The results of this longitudinal study support the hypothesis that changes in employment hours causes changes in household tasks hours. The study suggests that time availability is a necessary component of the relationship between changes in employment hours and changes in household tasks for women, but not for men. It also suggests that gender is a powerful factor and interacts with time availability in the relationship between market labor and household labor.

Changes in employment hours cause changes in household tasks among married women with children, but not married men with children even when the gendered nature of household tasks is considered. This is demonstrated by the fact that women's household tasks were more affected by changes in employment hours than men's even though the amount of change over time was the same for men and women. Further support for the role of gender can be drawn from the findings that education, hourly wage rate, and age of youngest child were important factors in women's but not men's household tasks, above and beyond the effects of employment hours. The study also confirms previously found work patterns: (a) men are more likely to be employed full-time than women,
(b) household tasks are gendered, and (c) women work more hours per year and have less leisure time than men.

In closing, a one hour increase in a women's employment hours creates a 44 minute time bind for married women with children. This is not true for married men with children. Although men and women have about the same amount of time, they do not

experience the same balance of work and family responsibilities. As Hochschild (1989, 1997) has pointed out, many women experience resentment and stress under such conditions. Perhaps a new look by men and women at the their current relationships and work patterns is needed, with renewed attention and respect for women's efforts. Excellent educational materials are becoming increasingly available that can assist couples in creating a dialogue that can lead to positive change. Although this study has revealed that the effects of change in employment hours may be negative for women, it is hoped that study will create changes that are positive.

BIBLIOGRAPHY

Acock, A. C. & Demo, D. H. (1994). Family diversity and well being. Thousand Oaks, CA: Sage.

Aldous, J. (1981). From dual-earner to dual-career families and back again. Journal of family issues, 2, 115-125.

Avery, R. J., Bryant, W. K., Douthitt, R. A., McCullough, J. (1996). Lessons from the past, directions for the future. Journal of family and economic issues, 17, 409-418.

Becker, G. S. (1991). A treatise on the family. Harvard University Press: Cambridge, MA.

Bell, D. H. (1981). Up from patriarchy: The male role in historical perspective. In R. A. Lewis, (Ed.), Men in difficult times. Prentice Hall: New Jersey.

Berk, R. A. & Berk, S. F. (1983). Supply-side sociology of the family: The challenge of the new home economics. Annual review of sociology, 9, 375-395.

Berk, S. F. (1985). The gender factory: The apportionment of work in American households. Plenum Press: New York, NY.

Blair, S. L., & Lichter, D. T. (1991). Measuring the division of household labor: Gender segregation of housework among American couples. Journal of family issues, 12, 91-113.

Blood, R. & Wolfe, D. (1960). Husbands and wives. New York: Free Press.

Brayfield, A. (1992). Employment resources and housework in Canada. Journal of marriage and the family, 54, 19-30.

Brines, J. (1994). Economic dependency, gender, and the division of labor at home. American journal of sociology, 100, 652-688.

Coltrane, S. & Ishii-Kuntz, M. (1992). Men's housework: A life course perspective. Journal of marriage and the family, 54, 43-57.

Coverman, S. & Sheley, J. F. (1986). Change in men's housework and child-care time, 1965-1975. Journal of marriage and the family, 48, 413-422.

Cowan, R. S. (1983). The invention of housework: The early stages of industrialization. In More work for mother. Basic Books: New York, NY.

Cowan, R. S. (1987). Less work for mother? Invention & technology, (Spring), 57-63.

Demo, D. H. & Acock, A. C. (1993). Family diversity and the division of domestic labor: how much have things really changed? Family relations, 42, 323-331.

Ericksen, J. A., Yancey, W. L., & Ericksen, E. P. (1979). The division of family roles. Journal of marriage and the family, 41, 301-313.

Farkas, G. (1976). Education, wage rates, and the division of labor between husband and wife. Journal of marriage and the family, 38, 473-483.

Ferree, M. M. (1990). Beyond separate spheres: Feminism and family research. Journal of marriage and the family, 52, 866-884.

Gerson, K. (1985). Hard choices: How women decide about work, career, and motherhood. University of California Press: Berkeley, CA.

Gorman, E. H. (1998). Bringing home the bacon: Marital allocation of income-earning responsibility, job shifts, and men's wages. Journal of marriage and the family, 61, 110-112.

Hall, L. D., Walker, A. J., & Acock, A. C. (1995). Gender and family work in one-parent households. Journal of marriage and the family, 57, 685-692.

Hareven, T. K. (1992). Continuity and change in American family life. In Leudtke, L. S. (Ed.). Making America: The society and culture of the U. S. Chapel Hill and London: The University of North Carolina Press.

Hochschild, A. (1989). The second shift: Working parents and the revolution at home. Avon Books: New York, NY.

Hochschild, A. R. (1997). The time bind: When work becomes home and home becomes work. Mountain Press: New York, NY.

Hughes, D., Galinsky, E., & Morris, A. (1992). The effects of job characteristics on martial quality: Specifying linking mechanisms. Journal of marriage and the family, 54, 31-42.

Kalleberg, A. L., & Rosenfeld, R. A. (1990). Work in the family and in the labor market: A cross-national, reciprocal analysis. Journal of marriage and the family, 52, 331-346.

Kamo, Y. (1988). Determinants of household division of labor: resources, power, and ideology. Journal of family issues, 9, 177-200.

Kamo, Y. (1994). Division of household work in the United States and Japan. Journal of family issues, 15, 348-378.

Kessler, R. & Greenberg, D. (1981). Linear Panel Analysis: Models of Quantitative Change. Academic Press.

McLanahan, S. & Booth, K. (1989). Mother-only families: Problems, prospects, and politics. Journal of marriage and the family, 51, 557-580.

Meiners, J. E. (1984). Time used for household work: Comparisions for farm, rural nonfarm, and urban women. Unpublished dissertation.

Menaghan, E. G., & Parcel, T. L. (1991). Parental employment and family life: Research inn the 1980s. In Booth, A. (Ed.), Contemporary families: Looking forward, looking back. National Council on Family Relations: Minneapolis, MN.

Mishel, L., Bernstein, J., & Schmitt, J. (1997). The state of working America. Economic Policy Institute Series. M. E. Sharpe: Armonk, NY.

Model, S. (1981). Housework by husbands: Determinants and implications. Journal of family issues, 2, 225-237.

Nickols, S. Y. & Metzen, E. J. (1982). Impact of wife's employment upon husband's housework. Journal of family issues, 3, 199-216.

Osmond, M. W. & Thorne, B. (1993). Feminist theories: The social construction of gender in families and society. In Boss, P.G., Doherty, W. J., LaRossa, R., Schumm, W. R., & Steinmetz, S. K. (Eds.), Sourcebook of Family Theories and Methods: A Contextual Approach. Plenum Press: New York, NY.

Pedhazur, E. J. (1982). Multiple regression in behavioral research. CBS College Publishing: New York, NY.

Pleck, J. H. (1985). Working wives, working husbands. Sage Publications: Newbury Park, CA.

Potucheck, J. L. (1992). Employed wives' orientations to breadwinning: A gender theory analysis. Journal of marriage and the family, 54, 548-558.

Presser, H. B. (1994). Employment schedules among dual-earner spouses and the division of labor by gender. American sociological review, 59, 348-364.

Rexroat, C. & Shehan, C. (1987). The family life cycle and spouses' time in housework. Journal of marriage and the family, 43, 737-750.

Robinson, J. P. (1988). Who's doing the housework? American demographics, 10, 24-63.

Ross, C. E. (1987). The division of labor at home. Social forces, 65, 816-833.

Shelton, B. A. (1992). Women, men, and time: Gender differences in paid work, housework, and leisure time. Greenwood Press: New York, NY.

Shelton, B. A., & John, D. (1993). Does marital status make a difference? Housework among married and cohabiting men and women. Journal of family issues, 14, 401-420.

Shelton, B. A., & John, D. (1996). The division of household labor. Annual review of sociology, 22, 299-332.

Smuts, R. W. (1971). Women and work in America. Schocken Books: New York, NY.

South, S. J., & Spitze, G. (1994). Housework inn marital and nonmarital households. American sociological review, 59, 327-347.

Spitze, G. (1988). Women's employment and family relations: A review. Journal of marriage and the family, 50, 595-618.

Thompson, L., & Walker, A. (1989). Gender in families: Women and men in marriage, work, and parenthood. Journal of marriage and the family, 51, 845-871.

Voydanoff, P. (1990). Work roles characteristics, family structure, demands, and work/family conflict. Journal of marriage and the family, 50, 749-761.

Voydanoff, P. (1991). Economic distress and family relations: A review of the Eighties. Journal of marriage and the family, 52, 1099-1115.

Walker, K. E., & Woods, M. E., (1976). Time use: A measure of household production of family goods and services. American Home Economic Association, Center for the Family: Washington, D. C.

Zvonkovic, A. N., Greaves, K. M., Schmiege, C. J., & Hall, L. D. (1996). The marital construction of gender through work and family decisions: A qualitative analysis. Journal of marriage and the family, 58, 91-100.