THE SECOND SHIFT AND THE NONSTANDARD SHIFT: NONSTANDARD WORK HOURS AND THE RELATIONSHIP BETWEEN DIVISIONS OF HOUSEHOLD LABOR AND PERCEPTIONS OF FAIRNESS OF HOUSEHOLD LABOR DIVISIONS

by

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(Under the Direction of Jody Clay-Warner)

ABSTRACT

Studies consistently show that women do more housework than men, but most women do not view this arrangement as unfair. In recent years, however, the U.S. has moved from a manufacturing to a service economy that demands new types of work schedules. Prior research shows that nonstandard work schedules affect the division of household labor but does not indicate whether these schedules change the relationship between the division of household labor and fairness perceptions concerning this division. This thesis addresses this issue and finds that women who work nonstandard hours (or have husbands who work nonstandard hours) are less likely to perceive themselves to be under-benefited in the division of household labor than women who work standard hours (or have husbands who work standard hours). This interaction disappears, however, when controlling for husbands' time in routine chores. Substantive and theoretical implications of these findings are discussed.

INDEX WORDS: Household labor, nonstandard work, perceptions of fairness, equity

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DEDICATION

For my mother, who spent years doing household labor and never perceived it to be unfair.

Thank you.

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CHAPTER 1

INTRODUCTION

Social scientists have long been interested in the gender differences in perceptions of fairness about the division of household labor. Paradoxically, women do more housework than men, but the majority of these women do not view this as unfair (Barnett and Baruch 1987; Benin and Agostinelli 1988; Berk 1985; Hill and Scanzoni 1982; Pleck 1985; Rosen 1987; Yogev 1981). This pattern is largely consistent through time and across many cultures (Davis and Greenstein 2004; Davis 2004). Though this paradox is a consistent finding, researchers have not yet examined the ways in which work schedules may affect the paradox. The U.S. is now in a new type of economy, and social scientists do not know whether this new economy facilitates the gender paradox or whether it is a catalyst for women to view unequal divisions of household labor as unfair.

Since the 1950s, the U.S. has shifted from a manufacturing to a service economy in which people are often expected to be available to work at any time of the day (Presser 2003). As a result, there has been an increase in the number of people working during nonstandard times such as hours in the evening, night, or early morning. Recent research shows that working during nonstandard hours affects many parts of workers' lives, including how they divide their household labor. Although the division of household labor in the U.S. is still gendered, when either partner of a heterosexual couple works a nonstandard schedule, men are more likely than men in couples where neither partner works nonstandard hours to do feminine-typed tasks such as cooking and cleaning when their partners are not at home, breaking traditional gender role

expectations (Presser 1994). Thus, we know that nonstandard work hours affect the division of household labor, but we do not know the role that nonstandard work hours play in the relationship between divisions of household labor and perceptions of fairness of these divisions.

It is plausible that nonstandard work hours may affect the relationship between divisions of household labor and perceptions of fairness because recent research has shown that people who work during nonstandard hours have mental and physical health needs that are different from those who work during standard hours (Boggild and Knuttson 1999; Jamal 2004; Schernhammer et al. 2000; U.S. Congress 1991; Wedderburn 2000). Most notably, nonstandard work hours dramatically affect workers' sleep times such that it may be difficult for these people to participate equitably in household labor. Since people who work during nonstandard hours have different needs, their partners may take these needs into account when formulating perceptions of fairness of household labor. Specifically, partners may allow their spouses who work nonstandard hours to do less household labor but not perceive themselves to be under-benefited because they attribute this inequity to their partner's work hours rather than to their partner's unwillingness to participate in household labor.

While it is possible that both men and women take their spouses' needs into account due to working nonstandard hours, feminist scholars argue that women tend to privilege men's needs above their own (Bem 1993; Blair Loy 2003). One way that women do this is by completing more household labor than their partners. Since women privilege men's needs, and people who work nonstandard hours have more needs than people who work standard hours, it is reasonable to think that women whose husbands work nonstandard hours may be less likely than women whose husbands work standard hours to perceive themselves to be under-benefited by inequitable divisions of household labor. Additionally, considering Presser's (1994) finding that

men engage in feminine-typed chores when their wives work nonstandard hours, it is possible that women view this as threatening to their husband's masculinity. As a result, the effect of doing more household labor than their husbands may be less important for wives' perceptions of fairness since their husbands are participating in chores that are incongruent with traditional gender roles due to their wives' work hours.

Participation in paid work during nonstandard hours is, however, only increasing in the U.S. economy. Yet, women continue to do more household labor than men and generally do not perceive themselves to be under-benefited by this arrangement (Barnett and Baruch 1987; Benin and Agostinelli 1988; Berk 1985; Hill and Scanzoni 1982; Pleck 1985; Rosen 1987; Yogev 1981). Research has not examined how nonstandard work hours affect the relationship between divisions of household labor and perceptions of fairness of these divisions. It is important to address this question for at least two reasons. First, I test competing hypotheses of important social theories, which suggests that the results of this paper will have important implications not only for theory-testing, but perhaps for theory modification or integration. Second, the results of this paper will have substantive implications for understanding why women do not perceive under-benefit when they do more household labor than their husbands. As the U.S. moves into a time where the social inequalities between men and women are thought to be narrowing, it is possible that the 24/7 economy may be stalling these advancements for women. Thus, this paper is an attempt to see how the new economy affects the existing paradox. Specifically, does the new economy force women to confront inequities in their divisions of household labor or serve as a way for women to justify them?

Taking theories of justice as well as theories of gender into account, I test hypotheses using multinomial logistic regression techniques on data from the second wave of the National

Survey of Families and Households. Specifically, Chapter 2 reviews relevant research concerning trends in nonstandard work hours, divisions of household labor, and perceptions of fairness. Chapter 2 also presents several hypotheses grounded in theories of justice and gender regarding the role of nonstandard work hours. Then, in Chapter 3, I describe the data, measures, and analytic strategy used to test the hypotheses presented in Chapter 2. Chapter 4 beings with a brief review of descriptive statistics, and then I present and interpret multivariate results. In Chapter 5, I conclude by discussing limitations, directions for future research, and the theoretical and substantive implications of this project.

CHAPTER 2

LITERATURE REVIEW

This chapter briefly describes the literature surrounding nonstandard work schedules, divisions of household labor, and distributive justice. First, this chapter covers trends regarding the increasing number of nonstandard work hours in the U.S. and discusses the ways in which the needs of people who work nonstandard hours are different from the needs of people who work standard hours. Then, the chapter reviews broad trends concerning who is typically responsible for household labor and how nonstandard work hours affect the way couples divide their household labor. The next section of the chapter reviews equity theory, the need rule of distributive justice, and women's lack of perceived injustice over divisions of household labor within a distributive justice framework. The chapter concludes with three alternative theoretical frameworks offering competing hypotheses that attempt to explain the impact of nonstandard work hours on the relationship between divisions of household labor and perceptions of fairness of these divisions.

Trends in Nonstandard Work Schedules

Since the 1950s, the United States has seen significant changes in the economy, demography, and technology, resulting in what Presser (2003) terms the "24/7" economy. In the "24/7" economy, jobs that provide services to customers have largely replaced manufacturing jobs. In the 1950s, for example, manufacturing accounted for 33.7 percent of all non-farm jobs in the U.S, but by 2000, only 14 percent of all non-farm jobs were in manufacturing (Pollina 2003). Thus, the U.S. has entered into a service economy. Many workers in the service industry

are now expected to be available to work at any time, thereby increasing the prevalence of work at nonstandard times. Nonstandard work schedules include work during the evening, at night, on a rotational basis, or on the weekend. Over two-fifths of Americans now work during non-standard times (Presser 2003). As Presser (1995) shows, only 31.5 percent of all employed Americans over 18 work regular day shifts, five days a week, from Monday through Friday, and 35 to 40 hours a week. Furthermore, people who work in service occupations and personal service industries are more likely to work nonstandard schedules (Presser 1995). Cashiers, truck drivers, sales workers, waiters and waitresses, janitors, registered nurses, nursing aides and orderlies are the occupations that are most likely to have nonstandard work schedules. Work at nonstandard times in these occupations is paid less than similar work at standard times in these occupations, except in the case of registered nurses, who are paid more for working at nonstandard times (Presser 2003).

Factors that increase one's likelihood of working nonstandard schedules include gender, race, education, age and marital status. Overall, men are slightly more likely than women to work during nonstandard hours, but gender composition of nonstandard hours changes by work schedule. Men are more likely than women to work fixed nights and rotating schedules. Women, in turn, are more likely than men to work other nonstandard schedules such as fixed evening and irregular day schedules. Minorities are more likely to work nonstandard shifts than non-Hispanic whites. Education and age have negative effects on one's likelihood of working nonstandard schedules. Additionally, non-married people are more likely to work nonstandard schedules than are married people (Presser 1995, Presser 2003).

Although some people work nonstandard schedules for flexibility purposes, Presser (2003) finds that people generally work these schedules because of the constraints of the job.

Often, workers cannot find other jobs, or the nature of the job itself requires nonstandard hours. Thus, workers may feel pressured to work these nonstandard schedules to provide for their families, and yet, they limit the amount of waking hours families can spend together. Therefore, nonstandard work schedules can have serious effects on many aspects of workers' lives, including mental and physical health, relationship quality, and divisions of household labor (Presser 2003).

Nonstandard work hours affect workers' mental and physical health. People who work at nonstandard times are more likely than those who work during standard hours to report job burnout, emotional exhaustion, and job stress. They also report higher instances of psychosomatic health problems such as headaches, inability to sleep, fatigue, and inability to relax (Jamal 2004). Additionally, people who work at nonstandard times suffer more than those who work at standard times from gastrointestinal disorders, breast cancer, miscarriage, giving birth prematurely, and having babies with low birth weights (U.S. Congress 1991; Wedderburn 2000; Schernhammer et al. 2000). Rates of cardiovascular disease are 40 percent greater for shift workers than non-shift workers (Boggild and Knuttson 1999). Therefore, people who work nonstandard hours have different emotional and physical health needs than those who work during standard hours.

Not only do nonstandard work schedules affect individuals' health, they also affect the health of their personal relationships, specifically their marriages. Working nonstandard schedules affects marital quality, but it does so differently for single-earner couples than for dual earner couples. For single-earner couples, when husbands work non-day shifts, the likelihood of having a high-quality marriage increases, with quality measured as general happiness, quality time, perceptions of lack of trouble in marriage, and perceptions that chances of divorce are low.

When wives in single-earner couples work nonstandard shifts, lower rates of marital quality are reported. For dual-earner couples, when both spouses work non-day shifts, they both report lower levels of marital quality than do either single-earner couples or dual-earner couples who work only day shifts (Presser 2003). Additionally, nonstandard work schedules can increase the likelihood of divorce or separation (Presser 2000).

Nonstandard schedules also affect the division of household labor by changing who is responsible for feminine-typed tasks, such as cooking, washing dishes, washing and ironing clothes, and cleaning the house. These feminine-typed tasks tend to be the most routine chores of the household considering that they must done more frequently than other chores. Overall, during the hours when wives are employed and husbands are not, husbands spend more time in the types of housework that are traditionally done by women, which breaks traditional gender expectations. This does not mean, however, that husbands whose wives work nonstandard schedules do more household labor than husbands whose wives do not work nonstandard schedules. Rather, husbands whose wives work nonstandard schedules increase their time spent in feminine-typed chores and may decrease their time spent in other chores (such as yard work, shopping, paying bills, car maintenance and repair, or driving household members to activities). Furthermore, when husbands are employed at times when wives are not, women tend to spend more time on feminine-typed tasks, which reinforces traditional gender expectations. Thus, this research suggests that the frequency and flexibility of the chores matter in determining how couples divide their household labor when at least one spouse works nonstandard hours. As feminine-typed chores are traditionally more frequent and less flexible than masculine-typed chores, it seems that the responsibility for these chores falls on the spouse who is not working

when these tasks must be done because these chores need to be completed in order for the household to function (Presser 1994).

Trends in the Division of Household Labor

Although there is a new economy, there is still an imbalance in the division of household labor. There is consistent evidence that women do more housework than men. Blair and Lichter (1991) find that women do 33 hours of housework per week, compared to 14 hours averaged by men. Shelton and John (1996) estimate that men do between 20 and 35 percent of the household labor. Although current research shows that men's contribution to household labor has increased slightly, Bianchi et. al. (2000) argue that this increase can be attributed to the fact that women are doing less housework, not that men today are doing much more than men in the past. These statistics are consistent with Hochschild's (1989) idea of the "stalled revolution," whereby women have entered the workforce but still do not experience equality at all levels.

Even though women are still doing more household labor than men, the service economy has changed the amount of work women do. For example, Bianchi et. al. (2000) find that women both within and outside of the paid labor force have reduced the hours they spend on household labor by half since the 1960s. They attribute this to the growth of the service sector, which allows people to outsource household labor. They also argue that people may have lowered their standards with regards to the acceptable products of household labor. They find that men's contribution to household labor has doubled since the 1960s. This increase is most likely due to the rising number of women entering the paid labor force and the real need for men to help complete household chores so that the household runs smoothly. Their results show that the increase in men's housework has slowed since the 1970s and 1980s. Thus, although men are doing more household labor than they did in the past, women still shoulder the responsibility for

the majority of the household labor, and there are three broad theoretical frameworks that attempt to explain the persistence of this inequality.

The first perspective, relative resources, argues that differences in partners' resources (namely income) allow the partner with more resources to opt out of housework (Brines 1983; Coverman 1985; Spitze 1988). Indeed, inequality in household labor increases as differences in husbands' and wives' earnings increase. This effect is gendered, however, in that men are more likely than women to work in paid labor, and are therefore less likely than women to spend time in household labor. Recent research by Cunningham (2007) shows that within white couples, husbands of women with higher incomes and more years of employment experience do more household labor than husbands of women with less time in the paid labor force. Additionally, as differences in earnings between husbands and wives decrease, differences in time spent in household labor also decrease (Blair and Lichter 1991; Brayfield 1992; Calasanti and Bailey 1991; Coltrane 1996; Deutsch et al. 1993; Greenstein 1996a; Harrell 1995; Heath and Bourne 1995; Hersch and Stratton 1994; Sanchez and Thomson 1997; Starrels 1994; Steil and Weltman 1991; Sullivan 1997; Van der Lippe and Siegers 1994).

The second perspective, gender ideology, argues that men and women construct their household labor in accordance with societal norms and personal beliefs surrounding gender roles. For example, inequality in household labor increases as broad social norms promote the gender-typing of household responsibilities of men and women. In the 1950s, for example, the breadwinner-homemaker family was considered by many to be the ideal. In this model, the division of household labor was extremely unequal with women doing a majority of the household work. Additionally, inequality in household labor increases when an individual supports the traditional gender role ideology wherein men work in the paid labor force while

women stay at home. Most studies consistently find that husbands' gender ideologies are often more important in determining the division of household labor than the gender ideologies of their wives (Hiller and Philliber, 1986; Ross 1987).

The third perspective, time availability, argues that people construct their divisions of household labor around who has the time available to do household chores (Coverman 1985; England and Farkas 1986; Hiller 1984). Within this perspective, working in paid labor is thought to allow people to decrease their time spent working in household labor. Indeed, inequality in household labor increases as differences in the amount of work outside the home increase. This effect is also gendered because men have traditionally worked out of the home more than women and, as a result, spend less time doing housework (Coverman 1985, Spitze 1988). As Mikula (1998) notes, however, the association between relative resources, gender ideology, and time availability and the allocation of household labor is weak. Gender still accounts for the largest amount of variability in how much a person contributes to household labor, as women consistently do more household labor than men (Mikula 1998).

Distributive Justice Framework

As exchange relationships occur in households, perceptions of fairness are often based on principles of distributive justice. Taken from Homans' (1961) definition, Cook and Rice (2003) explain that "distributive justice exists when rewards align with investments ….Distributive justice is obtained when the profits (rewards minus costs) of two actors are equal" (60). Thus, distributive justice is primarily concerned with fair outcomes. There are three justice rules that shape how outcomes are determined in distributive justice. The first, equality, states that outcomes are fair if they are distributed equally among all people, regardless of inputs. The second rule, equity, finds that outcomes are fair when they are determined by inputs. One who

contributes more should receive more. The third rule, need, states that people are entitled to receive an outcome based on their needs, not their inputs (Major 1993). In regards to household labor, research has focused primarily on the distributive justice rules of equity and need (Ahlander and Bahr 1995; DeMaris and Longmore 1996; Ward 1993).

Equity Theory

Classical equity theory states that equity exists when Actor A's ratio of outcomes to inputs equals that of Actor B. Formally stated, equity exists when (Adams 1965; Jasso 1978)

$$\frac{\text{Outcome (Actor A)}}{\text{Input (Actor A)}} = \frac{\text{Outcome (Actor B)}}{\text{Input (Actor B)}}$$

Inequity, in turn, occurs when there is an imbalance between these ratios. In this equation, outcomes are the rewards one actor receives from an exchange, while inputs are the actor's contributions to the exchange (Walster, Walster, and Berscheid 1978, Adams 1965). In exchange relationships, actors mutually benefit from the exchange of valued resources. When Actor A provides a valuable resource, then that resource is Actor A's input as well as Actor B's outcome in the exchange. Therefore, within intimate relationships, a wife's input is generally thought to be her husband's outcome and vice-versa (Cook and Hegtvedt 1983). For example, if a wife spends one hour cooking dinner for her husband, then her input is an hour of work, and the outcome is a shared meal. In this simplified example, the wife's greater input would result in an imbalance in the equity equation, and both partners would perceive injustice (Homans 1974). Specifically, the wife will perceive she is under-benefited because she put in an hour of work while her husband, who received the shared outcome of the meal and put in no work, will perceive that he is over-benefited.

It is rare, of course, for partners to make equal contributions in every area of their relationship such as income, household labor, and childcare. Rather, partners tend to contribute to almost every aspect of their relationship, and an imbalanced ratio of one's inputs and outcomes in one area can be compensated for by another imbalanced ratio (in the opposite direction) in another area. Therefore, equity in marriages may be examined by taking the inputs and outcomes of husbands and wives across marital domains rather than looking at one domain individually. That is, both partners may consider it equitable for a wife to do more household labor than her husband provided that her husband is contributing more than his wife to their total household income. As a result, studies of perceptions of fairness of divisions of household labor often take into account perceptions of inputs and outcomes in other marital domains (DeMaris and Longmore 1996). In addition, people make judgments about equity based on how valuable and relevant they view their own inputs and outcomes as well as those of their partners.

One of the main principles of equity theory is that imbalances produce distress (Walster, Walster, and Berscheid 1978, Adams 1965, Blau 1964, Homans 1961). This prediction is supported, even amongst couples who have justification for over-benefit. For example, when cancer patients feel that they are not contributing enough to their marriages, they experience depression. In turn, when the partners of these cancer patients feel under-benefited, this increases their likelihood of reporting signs of depression (Ybema et al. 2001). In regards to household labor, classical equity theory predicts that both partners will view inequitable divisions of household labor as unfair and negative emotions will arise. Indeed, the findings of Lively et. al. (2008) confirm this prediction. They find that when people are under- or over-benefited in household labor, they experience distress, although the effect of under-benefit is a stronger predictor of negative emotions than over-benefit. When people perceive that they are

under-benefited, they experience distress in the form of anger, rage, and fear. When people perceive that that they are over-benefited, they experience these negative emotions as well as self-reproach and guilt.

Therefore, classical equity theory speaks directly to the issue of perceptions of fairness of household labor. According to equity theory, people view equitable arrangements as fair. In turn, imbalances in the equity equation lead to perceptions of unfairness. Classical equity theory makes predictions about fairness perceptions based on the relative contributions each spouse makes to the overall functioning of the household. Equity theory posits the straightforward prediction that imbalances in the equity equation lead to perceptions that the division of household labor is unfair. Specifically, spouses who contribute more to the household relative to their partners should perceive that they are under-benefited. Spouses who contribute less to the household relative to their partners should perceive that they are over-benefited. This is reflected in the following hypotheses (H1 and H2). Additionally, Hypothesis 1 is presented in two causal diagrams (Figure 1a and Figure 1b) and Hypothesis 2 is also represented in two causal diagrams (Figure 2a and Figure 2b).

> H1: As unfavorable inequity in the division of household labor increases, the likelihood of perceiving one's self to be under-benefited increases, and the likelihood of perceiving one's self to be over-benefited decreases.

> H2: As favorable inequity in the division of household labor increases, the likelihood of perceiving one's self to be over-benefited increases, and the likelihood of perceiving one's self to be under-benefited decreases.

Importantly, classical equity theory makes no predictions about the role nonstandard work hours or gender may play in determining perceptions of fairness of divisions of household labor. In the next section, I discuss how people in close relationships incorporate the needs of their partners into their decisions about fairness in their relationships. Then, I present hypotheses from a

needs-based approach that predicts the role of nonstandard work hours in the relationship between divisions of household labor and perceptions of fairness of these divisions.

Needs-Based Approach to Distributive Justice

Classical equity theory does not take into account how the different needs that arise from working in a 24/7 economy may affect perceptions of fairness in household labor. A needs-based approach to distributive justice evaluations may take us further than equity theory in understanding fairness perceptions of household labor divisions in a 24/7 economy. As a justice rule, need states that people accommodate others' needs when allocating rewards (Deutsch 1975; Lerner 1977; Leventhal 1976a, Leventhal 1976b, Mikula and Schwinger 1978). Experimental studies have found that people often allocate more to people with needs, even in non-emergency settings (Bar-Tal 1976). Additionally, people allocate more money to poorer experiment partners than richer ones (Leventhal 1976a) and more extra credit grade points to classmates who are doing poorly in a class (Hoffman and Maier 1959). In these settings, the exchange partners are strangers, but evidence indicates that the need principle is even more salient in close relationships. Indeed, scholars contend that in close relationships, people utilize the need-rule over equity and equality when making allocation decisions because helping is seen as a normal and necessary part of being in a relationship (Deutsch 1975; Lerner, Miller, and Holmes 1976; Leventhal 1976b; Mikula and Scwinger 1978). For example, Kuijer, Buunk, and Ybema (2001) find that partners of cancer patients do not feel under-benefited in their relationships relative to partners of healthy people. Partners of cancer patients may objectively put more into their relationships, but they take the health needs of their partners into account and do not view themselves as being under-benefited in the relationship.

Thus, in close relationships, people often utilize the need-rule of distributive justice. Since people who work during nonstandard hours have different needs than those who work during standard hours (Jamal 2004), a needs-based approach expects that people will take these needs into account when judging the fairness of their division of household labor. That is, when people do more household labor than their partners who work during nonstandard hours, they may view this arrangement as fair because they are trying to accommodate the different needs of their partners. For example, people might view unfavorable divisions of household labor as fair when their partners are working nonstandard hours because they are attempting to allow their partners to opt out of household labor to fulfill their needs for things like sleep. Further, when spouses have different needs because of their nonstandard work schedule but do more household labor than their partners, they should perceive to be under-benefited because their spouses are not adequately providing for their needs. Therefore, the need-rule of distributive justice suggests the following hypotheses (H3 and H4), which are represented as causal diagrams in Figures 3 and Figure 4 respectively.

> H3: Partner's nonstandard work will moderate the positive relationship between unfavorable inequity and perceptions of under-benefit such that the effect of unfavorable inequity on perceptions of under-benefit will be weaker for people whose spouses work nonstandard hours than it will be for people whose spouses work standard hours.
>
> H4: Self's nonstandard work will moderate the positive relationship between unfavorable inequity and perceptions of under-benefit such that the effect of unfavorable inequity on perceptions of under-benefit will be stronger for people who work nonstandard hours than it will be for people who work standard hours.

A needs-based approach, however, does not incorporate the role gender may play in perceptions of fairness. In the next section, I discuss gender differences in preferences of and adherence to justice norms and relate these differences to women's lack of perceived injustice of unfavorable divisions of household labor.

Gendered-Needs Based Approach to Distributive Justice

Although a needs-based approach to distributive justice can address how the 24/7 economy might affect fairness perceptions about divisions of household labor, it does not explain how these perceptions of fairness may be influenced by gender. Early research in justice behavior shows that women's behavior in reward distribution does always not correspond with the predictions posed by equity theory. In experimental studies, researchers often find that women take less reward for themselves than do men (Callahan-Levy and Messé 1979; Lane and Messé 1971; Katz and Messé 1973). Women also report receiving less money was fair pay. Additionally, even when women perform better on joint tasks, they are more likely than men to allocate rewards from that task equally, while men tend to divide rewards equitably (Leventhal and Anderson 1970; Leventhal and Lane 1970, Mikula 1974). The findings of these experimental studies dovetail nicely with Gilligan's (1982) distinction between an ethic of care and an ethic of justice. Gilligan argues that men operate under an ethic of justice in which they take equity, not need, into account when making allocation decisions and evaluating the fairness of a situation. Women, in turn, operate under an ethic of care in which they take the needs of others rather than others' contributions into account. Similarly, Leventhal (1976a) argues that women attempt to maintain accord in their personal relationships by utilizing the need-rule of distributive justice more often than men in allocation decisions. According to Gilligan, Leventhal, and other scholars, these relationships between gender, distributive justice preferences, and adherences to justice rules exist not only in experimental settings but within intimate relationships as well. Specifically, scholars argue that women are more concerned than men with promoting harmony and stability in intimate relationships.

Empirical studies of intimate relationships, however, do not necessarily reflect gender differences in distributive justice preferences and adherences. For example, Major, Bylsma, and Cozzarelli (1989) find that distributive justice preferences in intimate relationships do not differ significantly for men and women. Likewise, Grote and Clark (1998) find that both husbands and wives consider communal norms (norms that account for the needs of the partner) to be ideal, and they follow these communal norms more than equity or equality rules of distributive justice. Despite a lack of empirical support of gender differences in preferences and adherences to distributive justice rules, several feminist scholars continue to argue that even though men and women may both advocate the need rule, it is women who tend to privilege men's needs above their own. In the following section, I present insights from Blair-Loy, Major, and Bem that attempt to explain women's lack of perceived injustice over unfavorable divisions of household labor.

Explaining Women's Lack of Perceived Injustice

Several feminist theorists contend that women privilege men's needs above their own, especially in the case of household labor. As a result, women do more household labor than men but most do not view this arrangement as unfair (Barnett and Baruch 1987; Benin and Agostinelli 1988; Berk 1985; Hill and Scanzoni 1982; Pleck 1985; Rosen 1987; Yogev 1981). Feminist scholars attribute women's lack of perceived injustice in response to inequitable household labor arrangements to women's feeling that they are entitled to less than are men. Men and women may have different senses of entitlement due to traditional gender role socialization that teaches them to want and value different things, such as work and family. Additionally, through traditional gender role socialization men and women can come to realize that they are often held to different comparison standards.

During gender role socialization, many girls are taught devotion to family, and many boys are taught devotion to work (Blair-Loy 2003). The schema of work devotion is traditionally masculine and characterizes careers as callings to which men should give their undivided attention. The schema of family devotion, in contrast, is traditionally feminine and places motherhood and marriage as women's calling. Thus, through gender role socialization, young children learn that housework is more closely related to a woman's identity than to a man's identity because of the woman's association with the schema of family devotion. Blair-Loy argues that these schemas are culturally created but internalized such that they shape people's goals and identities. As such, women are more likely than men to identify with the schema of family-devotion and feel that it is their responsibility to care for their husbands, children, and households. Thus, women are socialized to value the intrinsic rewards of housework and are therefore more likely to view an unfavorable division of household labor as fair than unfair.

Along with gender role socialization, being held to different comparison standards also contributes to women's lack of perceived injustice over unfavorable divisions of household labor. People compare their outcomes to social standards in order to assess what is normative and thereby fair. Major (1993) describes four types of comparison standards. The first, normative comparisons, stresses the importance of the norms that govern a situation. According to this comparison standard, when prevailing norms in society have women doing a majority of housework, then many of these women are unlikely to view this situation as unfair. The second type, judgment standards, stipulates that men and women utilize stereotypes in evaluating justice. That is, traditional stereotypes show women as homemakers, who must therefore keep a clean home so that they will not be negatively judged. The third type, feasibility comparisons, shows

that women may want a more equal distribution of household labor but must also factor in the feasibility and attractiveness of this new arrangement. Equal distribution may seem ideal, but for a variety of factors, may not actually be feasible. The fourth type, self-comparisons, is a process through which people compare current inputs and outcomes to what they have contributed and received in the past to determine what is fair (Major 1993). Thus, if women have taken on more housework than men in the past, they may not view this arrangement as unfair in the present.

Traditional gender role socialization and the comparison standards that Major (1993) describes have historically privileged men over women. Likewise, Bem (1993) contends that several aspects of society, divisions of household labor included, have been artificially polarized by gender in an androcentric way. For example, household chores, especially routine tasks like cooking and cleaning, are polarized by gender in that they are largely considered to be women's responsibilities. These polarizations have come to be naturalized through biological essentialism. Thus, not only are women more likely to be responsible for household labor, it becomes thought of as a part of their nature, that somehow, women are naturally better than men at doing routine chores. Through androcentrism, gender polarization, and biological essentialism, women become enculturated

> to give themselves much less priority than they rightfully deserve while men are culturally predisposed to give themselves much more priority than they rightfully deserve….The heterosexual marriage is a perfect breeding ground for inequality because it brings a male assumer of privilege together with a female denier of privilege (Bem 1993: 159).

Thus, in terms of household labor, women are enculturated to believe that doing more than their partners is natural and fair. As a result, they may even construct their division of household labor in an unequal way to express their femininity in line with social and cultural comparison standards that describe women as nurturing homemakers.

Thus, according to the distributive justice framework of the unequal division of household labor introduced by Major (1993) and Thompson (1991), "women will not perceive the gendered division as unfair as long as doing a larger share of family work than the partner corresponds to what they are socialized to want or value from their relationship, matches their comparison standards, and is perceived as justifiable" (Mikula 1998: 221). Based on this framework, an unfavorable distribution of household labor is only perceived as unfair to the extent that it violates what a person feels entitled to receive. Thus, the paradox of women doing more household labor than men but viewing it as fair may be explained by women's wants, values, and comparison standards that tend to privilege men's needs over their own.

Therefore, women may privilege men's needs above their own, especially in the case of household labor. Since women consistently do more household labor than men, but most do not view this as unfair, it is plausible to think that the presence of a need (as in partner's nonstandard work hours) may strengthen this relationship for women but not for men. That is, women may attempt to fulfill the needs of their husbands who are working during nonstandard times because they have different needs than men who work during standard hours. Women may do this through taking on more household labor than their husbands but not perceiving to be under-benefited by this arrangement. Men, however, are not socialized to privilege women's needs above their own. As such, a gendered-needs based approach to distributive justice predicts that unfavorable inequities in divisions of household labor will have a weaker effect on women's perceptions of under-benefit when their husbands work nonstandard hours than when their husbands work standard hours. As women may be more inclined than men to take the needs of their partner into account, a gendered-needs based approach to distributive justice predicts that

Hypothesis 3 would hold true only for women. This hypothesis (H5) is presented below, and is represented as a causal diagram in Figure 5.

> H5: Husbands' (but not wives') nonstandard work will moderate the positive relationship between unfavorable inequity and perceptions of under-benefit such that the effect of unfavorable inequity on perceptions of under-benefit will be weaker for wives of men who work nonstandard hours than it will be for wives of men who work standard hours.

Importantly, as men are not socialized to privilege women's needs above their own, a gendered-needs based approach would not anticipate that the above hypothesis (H5) would apply to men whose wives work nonstandard hours. As such, the effect of unfavorable inequitable divisions of household labor on men's perceptions of under-benefit would not be expected to vary based on their wives' work hours.

An alternative argument within the gendered-needs based approach considers the effect of unfavorable inequity and women's perceptions of fairness when women work nonstandard hours. Considering Presser's (1994) finding that when women work nonstandard hours, their husbands tend to do more feminine-typed (or routine) chores than husbands of standard workers, it is possible that women's nonstandard work weakens the positive relationship between unfavorable inequity and perceptions of under-benefit. More specifically, men's participation in routine chores counters traditional gender role stereotypes, and women may take this into account as a need when evaluating fairness. That is, women may see that their husbands are participating in tasks that do not coincide with traditional gender role stereotypes. As a result, they might perceive that doing more household labor than their partners is fair as a way to restore traditional gender roles within their homes. Therefore, a gendered-needs based approach hypothesizes first (represented in Hypothesis 6 and presented as a causal diagram in Figure 6) that the effect of unfavorable inequities in household labor on perceptions of under-benefit will

be weaker for women who work nonstandard hours than it will be for women who work standard hours. Then, a gendered-needs based approach predicts Hypothesis 7 (presented as a causal diagram in Figure 7), which attempts to explain the mechanism through which women who work nonstandard hours view inequities as fair.

> H6: The positive relationship between unfavorable inequity and under-benefit will be weaker for women who work nonstandard hours than for women who work standard hours.
>
> H7: The effect of the interaction between unfavorable inequity and wife's nonstandard work hours on wife's perceptions of under-benefit will be mediated by husband's time spent in routine chores.

Support for Hypothesis 7 might indicate that what is occurring with women's perceptions of under-benefit is not necessarily the number of hours their husbands spend in household labor but rather the types of chores their husbands perform. As routine chores are incongruent with traditional gender roles, women may take on more household labor than their husbands and not perceive to be under-benefited as a way to restore traditional gender roles in their home. Thus, it is not necessarily women's nonstandard work hours that drive women to take on more household labor, but rather, it is the way men participate in household labor, which is necessitated by women's nonstandard work hours. Thus, a gendered needs-based approach predicts in Hypothesis 8 (represented as a causal diagram in Figure 8) that the effect of the unfavorable inequity on women's perceptions of under-benefit will be less important once their husband's time in routine chores is taken into account.

> H8: Husband's hours in routine chores will moderate the relationship between wife's unfavorable inequity and perceptions of under-benefit such that higher levels of unfavorable inequity for wives will be less influential on their perceptions of under-benefit when their husbands spend time in routine chores.

In order to test these hypotheses, I perform multinomial logistic regressions on data from the second wave of the National Survey of Families and Households. In the following section, I briefly describe this dataset and explain the measures and analytic strategy used to obtain the results of this study.

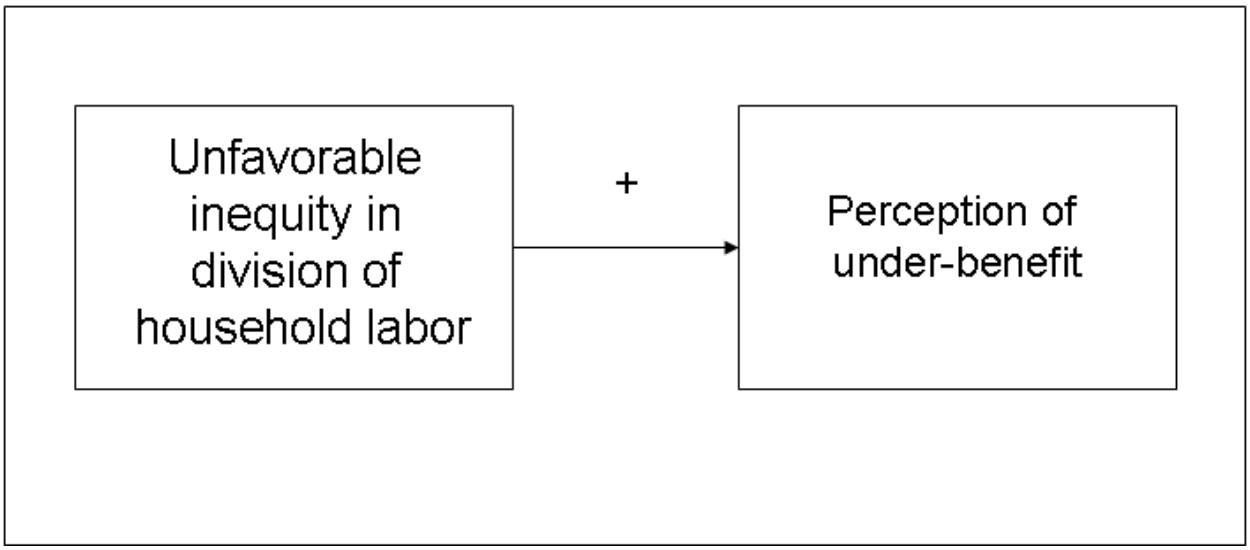

Figure 1a: Causal Diagram for Hypothesis 1

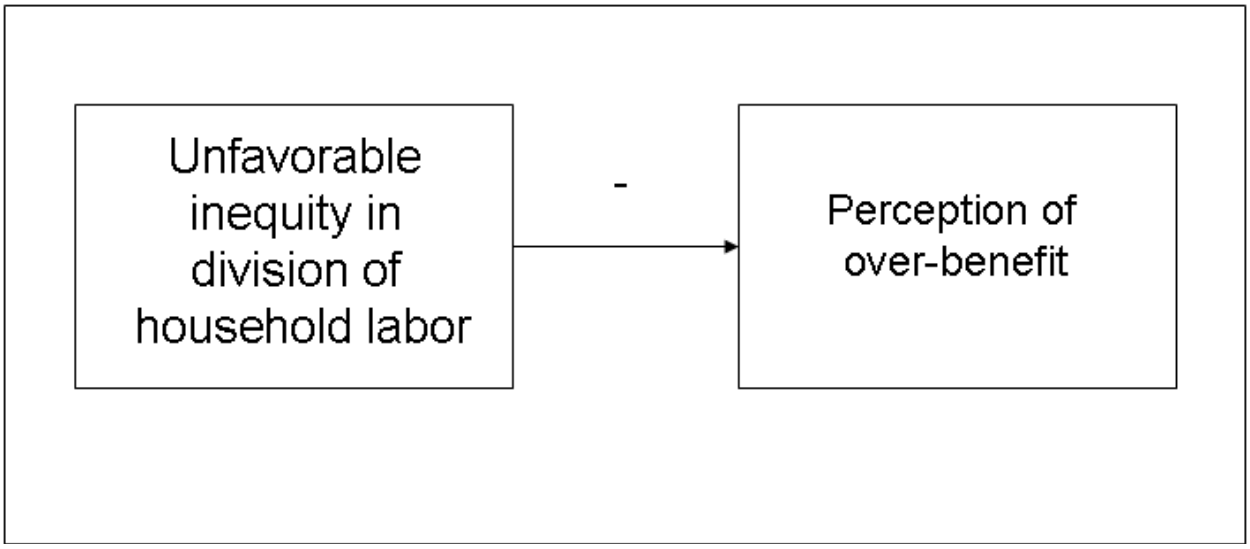

Figure 1b: Causal Diagram for Hypothesis 1

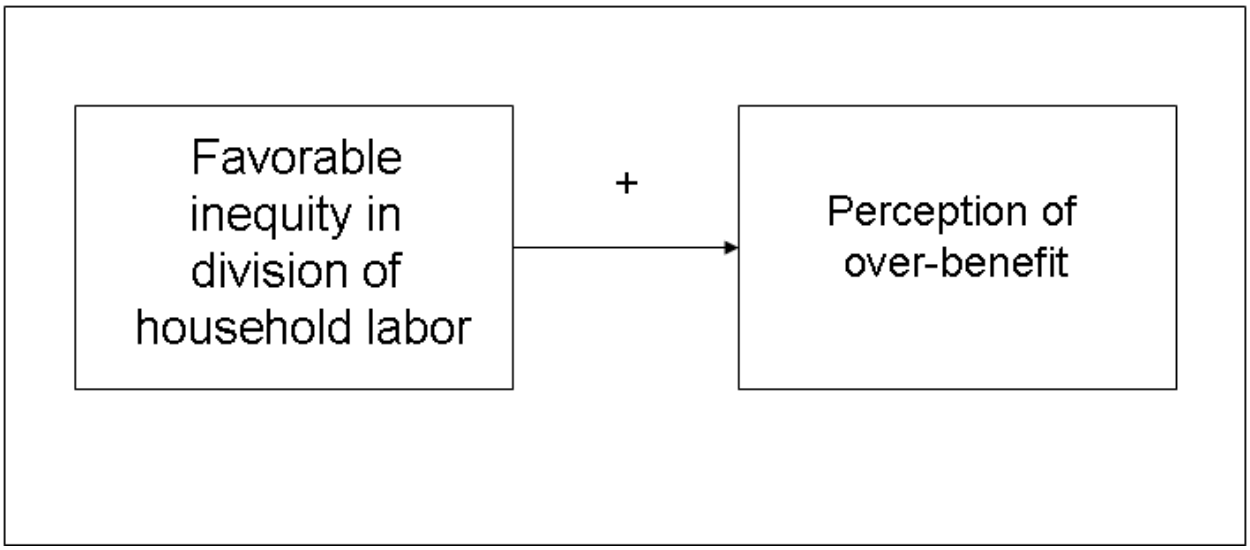

Figure 2a: Causal Diagram for Hypothesis 2

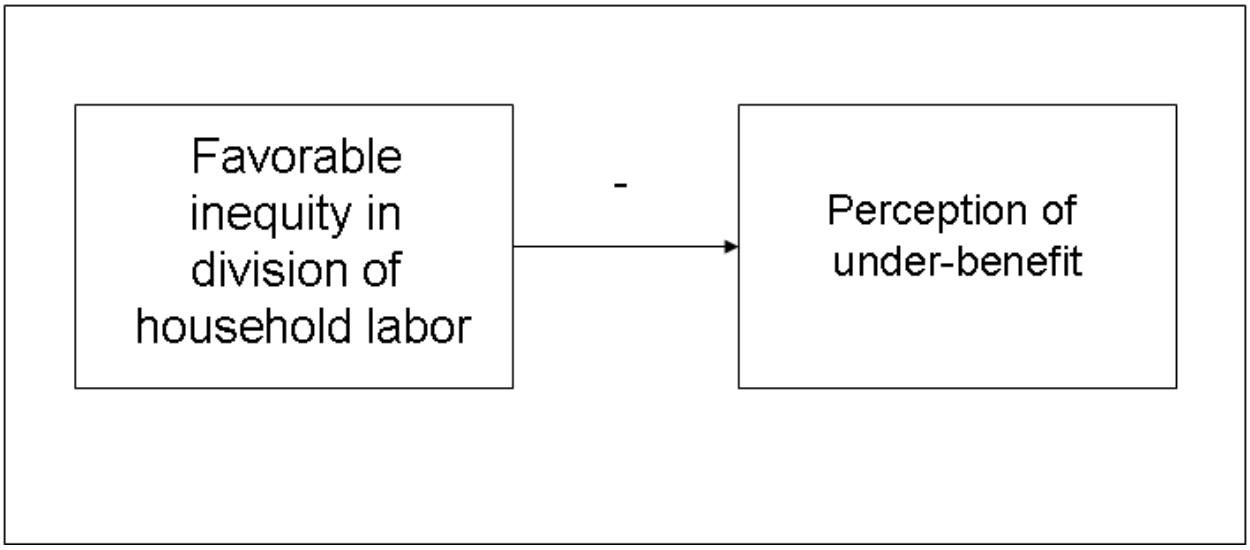

Figure 2b: Causal Diagram for Hypothesis 2

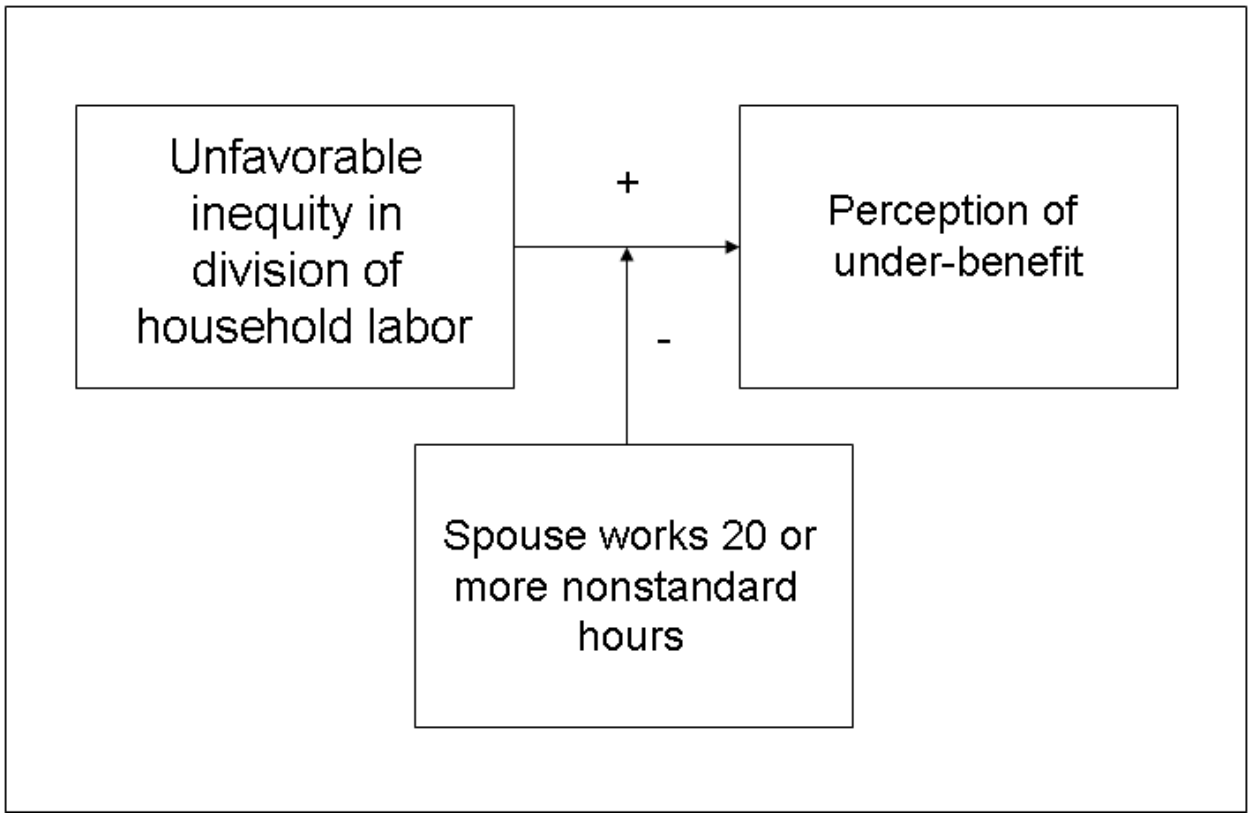

Figure 3: Causal Diagram for Hypothesis 3

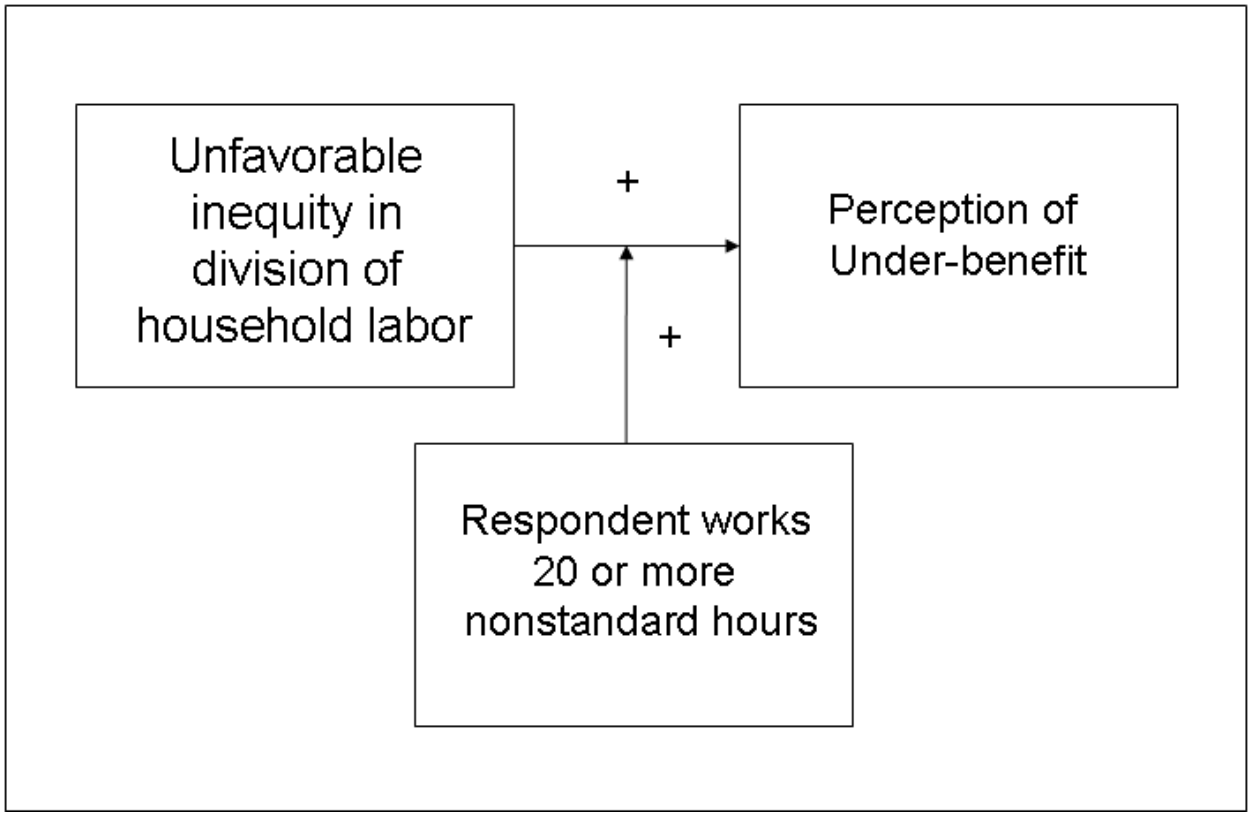

Figure 4: Causal Diagram for Hypothesis 4

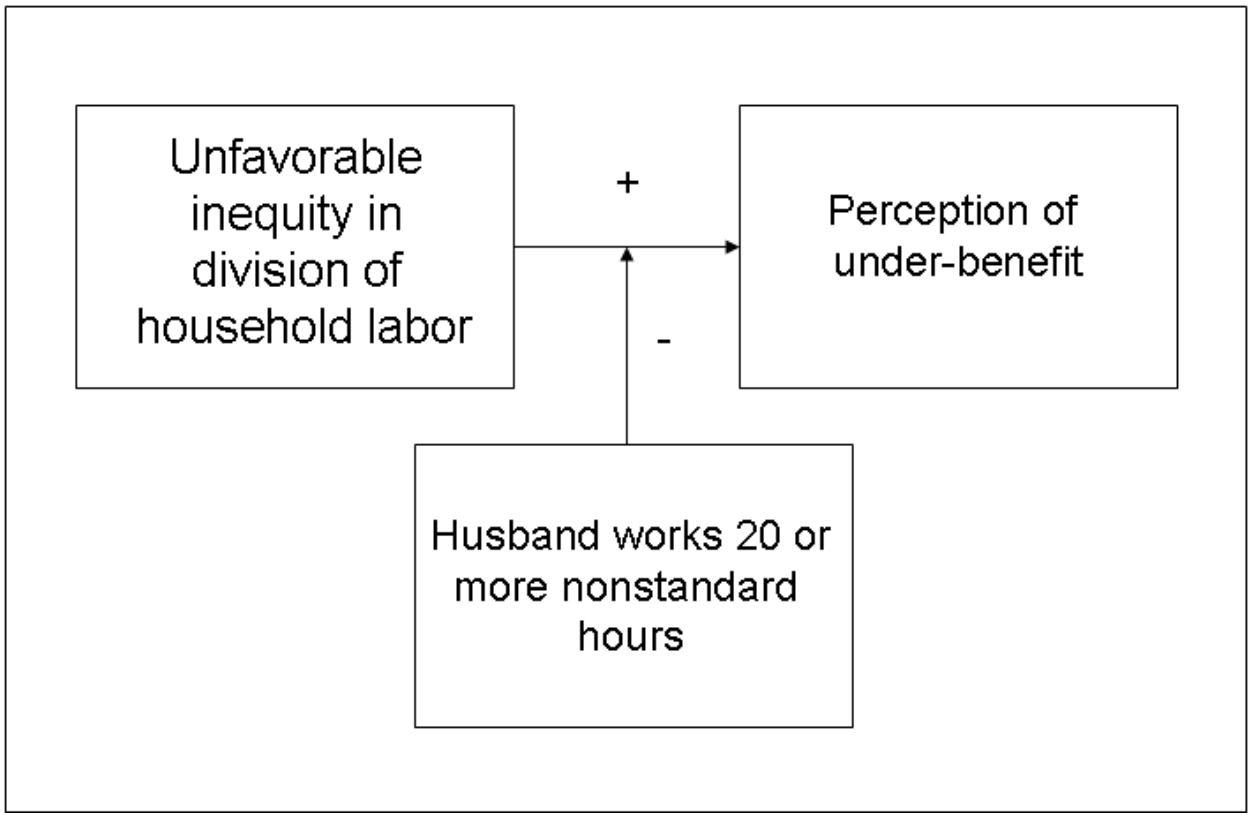

Figure 5: Causal Diagram for Hypothesis 5

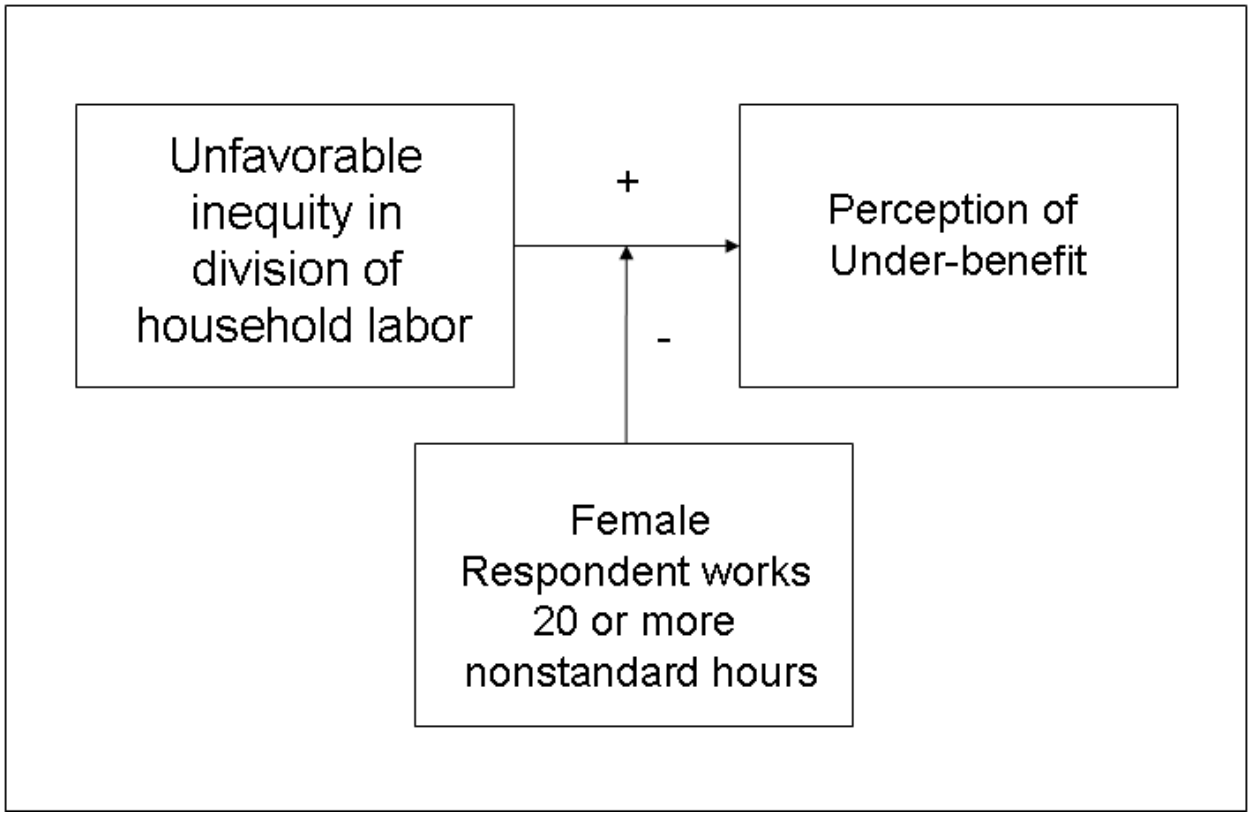

Figure 6: Causal Diagram for Hypothesis 6

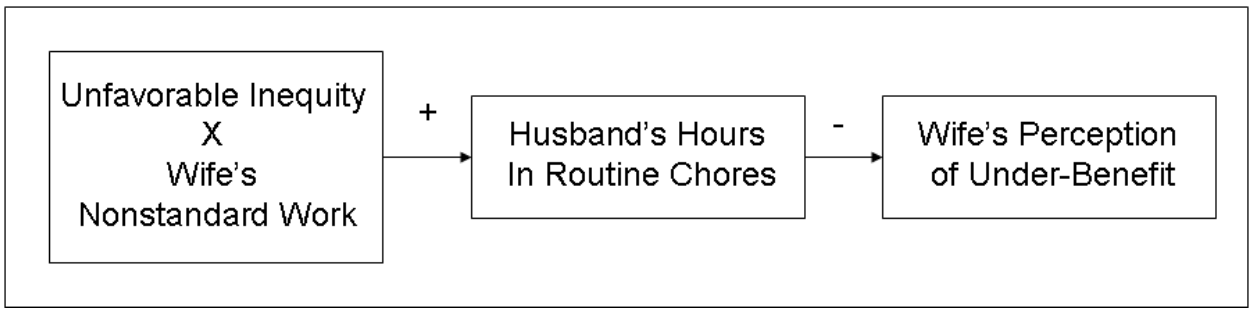

Figure 7: Causal Diagram for Hypothesis 7

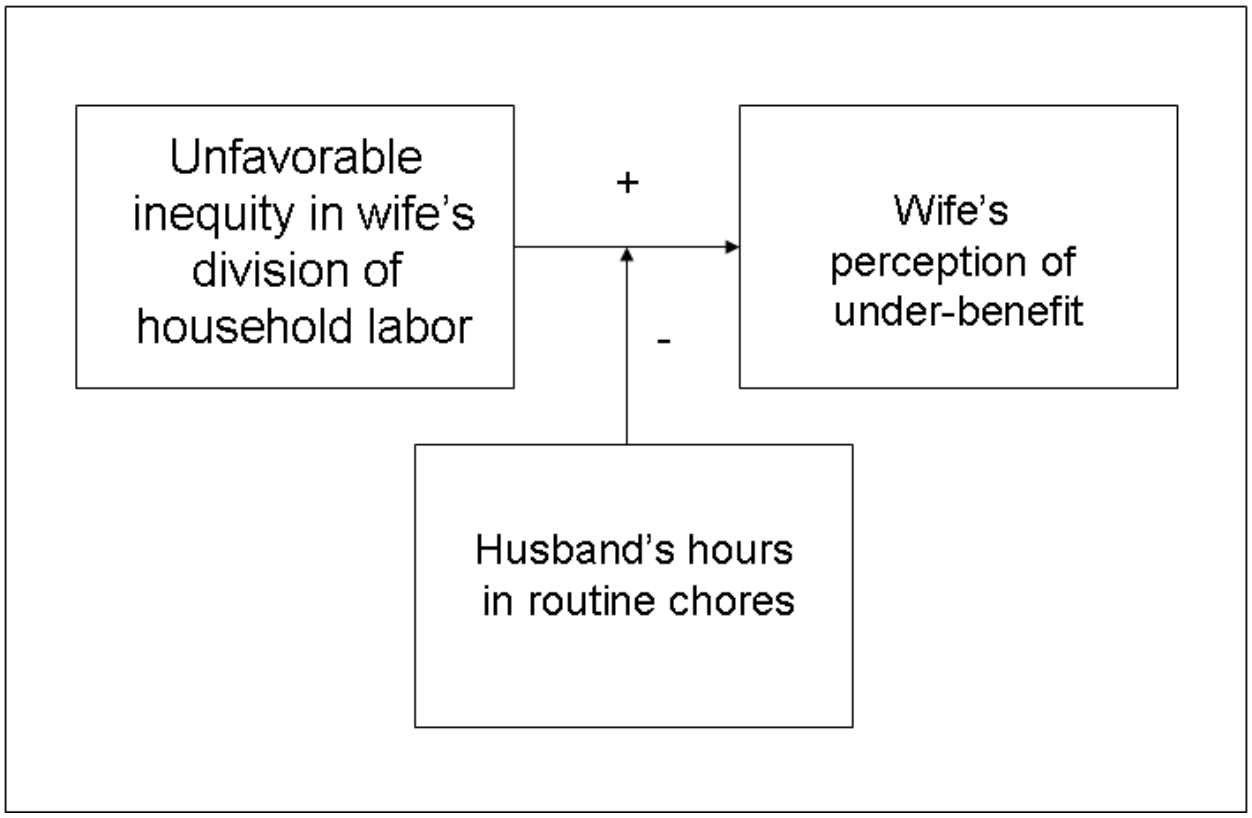

Figure 8: Causal Diagram for Hypothesis 8

CHAPTER 3

METHODS

Data

Data for this study are taken from the second wave of the National Survey of Families and Households, 1992-1994 (n=10,007). The NSFH is a national, longitudinal, multi-stage area, probability sample. The first wave, collected from 1988 to 1989, includes life-history data such as information regarding living arrangements, histories of marriage, cohabitation, education, fertility and employment of the 13,007 respondents. The sampling frame is based on population projections from the 1985 U.S. Census. Blacks, Puerto Ricans, Mexican Americans, single-parent families, families with stepchildren, cohabiting couples, and recently married couples were double sampled. Each primary respondent participated in a personal interview, lasting about an hour and a half. The main interview response rate was 74.3 percent. The primary respondents and their partners completed self-administered questionnaires separately. The second wave includes personal interviews with original respondents as well as interviews with their current partners and former partners if the couple's relationship had ended since the first wave. The attrition rate from the first wave to the second wave is 23 percent (Bumpass and Sweet 1996). The unit of analysis for this study is the individual. The subsample for this study includes responses from 4,188 married respondents. The analyses presented below examine only cases of the focal respondents. Thus, the cases presented in the following analyses are independent of one another.

Measures

Dependent Variable

The dependent variable is the respondent's *perception of fairness* regarding the division of household labor. To measure this, the study asks respondents, "How do you feel about the fairness of your relationship in…household chores?" Respondents can answer that they perceive that they are *under-benefited* in their division of household labor (coded as 1), that their division of household labor is *fair* to both partners (coded as 2), or that they are *over-benefited* in their division of household labor (coded as 3).

Independent Variables

The key independent variable is the *ratio of hours spent in household labor*. The study asks respondents to write in the approximate number of hours per week that they and their spouses spend in the following nine household chores: (1) preparing meals; (2) washing dishes and cleaning up after meals, (3) washing and ironing clothes; (4) cleaning house; (5) outdoor tasks/household maintenance; (6) automobile maintenance and repair; (7) shopping for groceries and other household items; (8) paying bills; and (9) driving household members to various activities. To construct a chore ratio, I sum respondent's hours and partner's hours across these nine chores. Then, I create a ratio of respondent's hours to partner's hours. Values greater than 1 on these measures indicate that the respondent experiences *unfavorable inequity*. Values of one indicate an even split of housework.[1] Values less than one on these measures indicate that the partner is doing more housework relative to the respondent, and in these cases, the respondent experiences *favorable inequity* in their division of household labor.

Following DeMaris and Longmore (1996), I also create measures for *partner's hours in routine housework*. This measure sums respondents' reports of the hours their spouses spend

[1] Values of 1 were rare and excluding them from the analyses did not change the results.

preparing meals, washing dishes and cleaning up after meals, washing and ironing clothes, and cleaning house. These chores are typically defined by their intensity. They are highly frequent and generally inflexible. Often, these chores are denoted as feminine-typed chores. Therefore, in order to test the final hypothesis of the gendered-needs based approach, it is important to include a measure of partner's hours in routine chores because these are the chores that are typically incongruent with traditional masculine identity.

The next key independent variable of interest is whether or not the *respondent works nonstandard hours.* This variable is dummy coded to define someone who works 20 or more hours between 6:00 P.M. and 5:00 A.M. as a worker with a nonstandard schedule (1=works 20 or more nonstandard hours, 0=works 19 or fewer nonstandard hours). To measure work hours, subjects were asked what time they normally started and stopped working at their main job for seven days out of the week. If they worked 20 or more hours between 6:00 P.M. and 5:00 A.M., they were defined as someone who works nonstandard hours.[2] I chose these cut-off times because people who work 20 or more hours a week between 6:00 P.M. and 5:00 A.M. are likely not working during normal waking hours.

I also measure whether the *respondent's spouse works nonstandard hours.* Again, this is dummy coded to define a partner who works 20 or more hours between 6:00 P.M. and 5:00 A.M. as a worker with a nonstandard schedule (1=respondent has a spouse who works 20 or more nonstandard hours, 0=respondent has a spouse who works 19 or fewer nonstandard hours). [3]

[2] I am indebted to Dr. Jeremy Reynolds for the code used to create these variables.

[3] It would be fascinating to study the impact of nonstandard work hours on the relationship between divisions of household labor and perceptions of fairness when both members of a couple work 20 or more nonstandard hours per week. However, there are not enough couples in the data who have such work hours. These cases (N=11) were defined as missing, and the results of this paper are limited to respondents in households where neither spouse or only one spouse works 20 or more nonstandard hours.

Control Variables

Control variables include relative contributions to household income, ratio of hours in the paid labor force, race, age, number of children, education, length of relationship, and gender ideology.

Although relative contributions to housework tap into a measure of equity of housework, *relative contributions to income* also factor into equity considerations. That is, if a respondent does less housework than a partner, but brings home more income, this arrangement may be seen as equitable. Therefore, it is necessary to control for income inputs. *Relative income* is measured in dollars as the proportion of household earnings contributed by the respondent. Many studies show that as wives' proportion of total household income increases, equal divisions of household labor also increase (Blair and Lichter 1991; Brayfield 1992; Calasanti and Bailey 1991; Coltrane 1996; Deutsch et al. 1993; Greenstein 1996; Harrell 1995; Heath and Bourne 1995; Hersch and Stratton 1994; Sanchez and Thomson 1997; Starrels 1994; Steil and Weltman 1991; Sullivan 1997; Van der Lippe and Siegers 1994).

Another consideration in the equity equation is time spent in the paid labor force. Similar to contributions to income, if a respondent does less housework than a partner, but spends more time in paid labor, this arrangement may also be seen as equitable. Thus, it is also necessary to control for paid labor inputs. The *ratio of hours in paid labor* is measured as the number of hours respondents spend in the paid labor force relative to that of their spouses. Recent research has shown that the number of hours women spend in the paid labor force increases their husbands' hours in household labor. (Blair and Lichter 1991; Coltrane & Ishii-Kuntz, 1992; Greenstein 1996; Shelton & John, 1993). Findings regarding the relationship between time in paid labor and hours spent in domestic work are less consistent for men. Most

studies show that men who are employed fewer hours than their wives do a greater share of the household labor (Baxter 1993; Brines,1993; Ishii-Kuntz and Coltrane, 1992; Greenstein 1996; Haddad 1994; Hersch and Stratton 1994; Waite & Goldscheider 1992). Other research, in contrast, does not find a consistent relationship between men's employment hours and the number of hours they spend in household labor (Almeida et al. 1993; John and Shelton 1997; Sullivan 1997).

Race/ethnicity is measured as being non-Hispanic white, black, Hispanic, or any other race/ethnicity. In all models, black is left out as the reference category. Models include a control for race because race has been found to be a significant predictor of both divisions of household labor and perceptions of fairness. Studies find that black men do more household labor than white men (Bergen 1991; Broman 1991; Heath and Bourne 1995; Hossain and Roopnarine 1993; John and Shelton 1997; Orbuch and Eyster 1997; Padgett 1997; Sanchez and Thomson 1997) and that employed black women do fewer hours of housework than other women (Silver and Goldscheider 1994). Interestingly, black men are less likely than white men to perceive that their divisions of household labor are unfair to their wives (DeMaris & Longmore 1996; John, Shelton, and Luschen 1995). Studies are inconsistent with findings concerning divisions of household labor among Hispanic persons, but DeMaris and Longmore (1996) shows that Latino men and women are less likely than white men and women to perceive that their divisions of household labor are unfair to their wives. Thus, race/ethnicity impact not only divisions of household labor but perceptions of fairness of these divisions as well.

Models include a control for respondent's *age* because younger women tend do less housework than older women. Additionally, younger women tend to share housework more

often with their husbands than older women (Hersch and Stratton 1994; Shelton & John 1993; Van der Lippe and Siegers 1994).

Number of children is measured continuously and was created by adding the number of children respondents had at the time of the first wave of the NSFH to the number of children they have had between the time of their first and second wave interviews. I control for the number of children because studies have found that the presence of children significantly increases the amount of household labor that people do, and women often shoulder this responsibility more than men (Blair and Lichter 1991; Cowan and Cowan 1992; South and Spitze 1994). Couples without children tend to share housework more equally than couples with children (Coltrane 1990; Pittman and Blanchard 1996).

Education was measured by asking respondents their highest education level completed. Response categories include having a high school degree or less, having some college education (including an associate's degree), having a bachelor's degree, or having an advanced degree. In all models, having a high school degree or less is the omitted reference category. Many studies find that as women's education increases, their time spent in household labor decreases, but as men's education increases, their time in household labor increases (Bergen 1991; Haddad 1994; Hersch and Stratton 1994; Pittman and Blanchard 1996; Presser 1994; Orbuch and Eyster 1997; Sanchez and Thomson 1997; South and Spitze 1994). Further, people with high levels of education are more likely to view divisions of household labor as unfair than fair (DeMaris and Longmore 1996; John, Shelton, and Luschen, 1995; Robinson and Spitze 1992).

The *length of marriage* is measured in years and was calculated as the year of their marriage subtracted from the year of the interview. Based on Major's (1993) notion of self-comparison in which people look to how they have divided household labor in the past as an

indicator of the fairness of divisions of household labor in the present, it is possible that as marriage length increases, people might view inequities in their divisions of household labor as normative within their relationship. Thus, the length of marriage might increase spouses' likelihood of viewing their divisions of household labor as fair because they see these divisions as an enduring part of their relationship.

To construct the *gender ideology* scale, I summed responses on five statements. Respondents were asked whether they strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4) or strongly agree (5) to the following seven statements:

1. "It is much better for everyone if the man earns the main living and the woman takes care of the home and family"*
2. "Preschool children are likely to suffer if their mother is employed."*
3. "It is alright for a man to have a child without being married"
4. "A woman can have a fully satisfying life without children."
5. "A man can have a fully satisfying life without getting married."

I included asterisks next to the statements that were reverse coded. Possible values range from 1 to 5. Higher values on the scale indicate an egalitarian gender ideology while lower values on the scale indicate a traditional gender ideology. Many studies show that people with egalitarian gender ideologies split housework more evenly than people with traditional gender ideology (Almeida et al. 1993; Blair and Johnson 1992; Baxter 1993; Calasanti and Bailey 1991; Greenstein 1996; Harrell 1995; Ishii-Kuntz and Coltrane 1992; Mederer and Weinstein 1992; Orbuch and Eyster 1997; Perry-Jenkins and Crouter 1990; Pittman and Blanchard 1996; Presser 1994; Starrels 1994; Waite and Goldscheider 1992; Wright et al. 1992; Sanchez and Thomson 1997). Gender ideology has also been found to interact with divisions of household labor to

affect perceptions of fairness of divisions of household labor. Greenstein (1996b) finds that women with traditional gender ideologies perceive unfavorable divisions of household labor as fair more often than women with egalitarian gender ideologies. Thus, gender ideologies can affect not only how people divide their household labor, but also whether or not they view their divisions as fair. The alpha for this scale is .61.

Analytic Strategy

In order to answer the research questions presented above, I perform a series of multinomial logistic regressions. Multinomial logistic regressions are appropriate to use when the dependent variable is nominal and has more than two categories. Multinomial logistic regression produces odds ratios for various independent variables that show how likely it is that a certain group will have a specific outcome. Thus, it predicts membership in categories of the dependent variable based on membership in certain categories of the independent variable (Pampel 2000). Using this technique, the three-category dependent variable will be regressed on the set of independent variables above. Models will be presented with and without interaction terms between the division of household labor and nonstandard work hours in order to test model fit. I split full models by gender in order to test whether gender interacts with chore ratios and nonstandard work to affect perceptions of fairness of divisions of household labor.

CHAPTER 4

RESULTS

In this chapter, I present descriptive statistics (Table 1). Then, I test mean differences in hours spent in household labor for respondents who work standard hours and respondents who work nonstandard hours (Table 2), then these results are split by gender (Tables 3 and 4). Tables 5-7 present results of cross-tabulations of work schedule and perceptions of fairness of household labor. Tables 8-11 present results from multinomial logistic regressions that test hypotheses developed in Chapter 3.

Descriptive Statistics

As Table 1 shows, there are more women than men in this sample. Women comprise about 52% of the sample. Additionally, the majority of the sample is white (85%), and this is similar across sex. Specifically, 84% of men are white, nine percent are black, six percent are Hispanic and one percent is of another race, while 85% of women are white, eight percent are black, five percent are Hispanic and one percent is of another race. Almost half the sample has only or less than a high school degree. Around 24% of respondents have some college experience, while 17% have a college degree, and 10% have an advanced degree. Men seem to fare a bit better in educational attainment. Almost 18% of men have a college degree compared to 16% of women, and 12% of men have an advanced degree compared to eight percent of women. Concerning the other control variables, the average respondent has two children (S.D. 1.66). The average length of marriage for respondents is about 20 years (S.D. 13.22). The average score on the gender ideology scale is 2.86. The gender ideology scale ranges from one

to five, with five being egalitarian and one being traditional, so the average respondent has a relatively neutral gender ideology. Women have slightly more egalitarian gender ideologies than men, with the average gender ideology score for women is 2.94 (S.D. .70), while the average gender ideology score for men is 2.77 (S.D. .68). The average age of all respondents is 45. The average income is slightly less than $29,000 (S.D. 24,418). On average, men seem to make more money than women. The average income for men is $36,986 (S.D. 27,797), while the average income for women is $20,567 (S.D. 16,504). Finally, the average number of hours that respondents spend in the paid labor force is 28.55 (S.D. 22.14). Men have a higher average of hours in the paid labor force than women. Men spend on average 36 hours per week in paid labor (S.D. 22.13) compared to 22 hours on average for women (S.D. 20.01).

Descriptive statistics of time spent in household labor can also be found in Table 1. The average time spent in all nine household chores for all respondents is 30 hours per week (S.D. 25). Women's average hours in total household labor are substantially larger than men's. Specifically, women perform on average around 39 hours per week (S.D. 28.23), while men perform 20 hours per week on average (S.D. 15.19). This relationship changes, however, based on the types of chores men and women perform. For example, on average, men spend more time than women in sporadic chores (outdoor tasks/household maintenance, automobile maintenance and repairs, shopping for groceries and other household items, paying bills, and driving household members to various activities). Specifically, men spend 12 hours per week on average performing sporadic chores (S.D. 10.43), compared to 10 hours for women (S.D. 10.63). In contrast, women spend much more time than men on average in routine chores (preparing meals, washing dishes and cleaning up after meals, washing and ironing clothes, and cleaning house).

On average, women spend almost 30 hours per week in routine chores (S.D. 20.90) while men spend eight hours per week on average in routine chores (S.D. 8.21).

Even though women do more household labor than men, descriptive statistics in Table 1 show that the majority of women (and men) view their divisions of household labor to be fair to both partners (66% of men and 61% of women). Almost 34% of women feel under-benefited in their divisions of household labor, while only about six percent of men feel this way. Conversely, only six percent of women feel over-benefited in their divisions of household labor, while almost 29% of men perceive over-benefit. Thus, most respondents think that their divisions of household labor are fair, but women are more likely than men to think that they are unfavorably treated and men are more likely than women to think that their partners are unfavorably treated.

Since the hypotheses developed in Chapter 3 hinge upon the notion that those who work standard hours are different from those who work nonstandard hours, it is important to first determine whether there are significant differences in their mean hours spent in household labor. Thus, Tables 2-4 examine whether there such significant differences exist.[4] As Table 2 shows, people who work nonstandard hours spend about two hours less than people who work standard hours doing all household chores, but this difference is not statistically significant. The average number of hours spent in total household labor per week for the spouses of people who work nonstandard hours does differ significantly from the spouses of people who work standard hours. Specifically, spouses of people who work nonstandard hours spend almost 36 hours per week on average in all household chores (S.D. 31.02), while spouses of people who work standard hours spend about 27 hours per week on average (S.D. 23.69). A mean difference test is statistically

[4] I performed Bartlett's tests for equal variances, and all of these tests confirmed setting unequal variances for mean difference t-tests.

significant, indicating that the average time that spouses of people who work nonstandard hours spend in total household labor is significantly greater than that of spouses of people who work standard hours. Based on these descriptive statistics, is seems that spouses of people who work nonstandard hours might recognize that their partners need them to perform a greater share of the household labor. Interestingly, however, these significant findings do not persist when separate analyses are performed for men and women who work nonstandard hours (Tables 3 and 4). This may indicate that the variation we see in hours spent in total household labor between people based on their work hours is accounted for by gender rather than work schedule.

Another interesting pattern exists in Table 2 concerning routine chores (preparing meals, washing dishes and cleaning up after meals, washing and ironing clothes, and cleaning house). People who work nonstandard hours spend on average about 16 hours per week in routine chores (S.D. 18.02) compared to 19 hours for people who work standard hours (S.D. 19.36), and a t-test of mean differences is significant at the .05 level. Additionally, spouses of people who work nonstandard hours spend about 23 hours on average per week in routine chores (S.D. 20.65) compared to about 17 hours per week for spouses of people who work standard hours (S.D. 18.08). A t-test also reveals that these means significantly differ at the .05 level. Thus, people who work nonstandard hours spend less time than people who work standard hours in routine chores, and their spouses spend more time than spouses of people who work standard hours doing routine chores. This is understandable since nonstandard work hours may not allow people to be at home during normal waking hours, so they may not be able to do things like cook meals for their families or clean up after those meals.

The gender differences that are seen in Tables 3 and 4 concerning routine chores are also interesting. In Table 3, we see that the average time men who work nonstandard hours spend per

week in routine chores is about 9 hours (S.D. 10.49) compared to 8 hours for men who work standard hours (S.D. 8.06). Also, wives of men who work nonstandard hours spend about 30 hours per week on average in routine chores (S.D. 20.86), compared to 27 hours for wives of men who work standard hours (S.D. 22.22). Neither of these mean differences is significant at the .05 level, however. Alternatively, Table 4 shows that husbands of women who work nonstandard hours spend on average 11 hours per week in routine chores (S.D. 11.58) compared to 7 hours for husbands of women who work standard hours (S.D. 10.23), and this mean difference is statistically significant. This indicates that when women work nonstandard schedules, their husbands may increase their time in routine chores, which are typically considered feminine tasks. This is relevant to Hypothesis 7, which predicts that husbands' time in routine chores mediates the relationship between the interaction of wives' work hours and inequity and wives' perceptions of fairness. Thus, even though men who work nonstandard hours may not spend significantly more time in routine chores than men who work standard hours, the husbands of women who work nonstandard hours do spend significantly more time in routine chores than husbands of women who work standard hours.

As it is important to show that there are significant differences in the mean hours of household labor between people who work standard hours and people who work nonstandard hours, it is also helpful to show that people who work nonstandard hours may also have different substantive patterns than people who work standard hours in their perceptions of fairness for these divisions of household labor. As such, Tables 5-7 show cross-tabulations of work hours and perceptions of fairness. Almost two-thirds of people who work standard and nonstandard hours feel that their divisions of household labor are fair to themselves and their partners. About 14% of people who work nonstandard hours feel that they are under-benefited in their divisions

of household labor, while over 21% feel that they are over-benefited. This relationship is almost reversed for people who work standard hours. Over 20% of those who work standard hours feel they are under-benefited in their divisions of household labor, while about 17% feel they are over-benefited in their divisions of household labor. The likelihood ratio chi-square for this cross-tabulation is significant at the .05 level, indicating this relationship is likely not due to chance.

When I break this cross-tabulation down by gender in tables 6 and 7, however, it is no longer significant for men or women. Table 6 shows that there is little difference between men who work standard hours and men who work nonstandard hours in their perceptions of fairness of divisions of household labor. About 66% of each feel their divisions of household labor are fair, about six percent of each feel under-benefited, and about 28% of each feel over-benefited. Table 7 shows substantial differentiation between women who work nonstandard hours and women who work standard hours. About 28% of who work nonstandard hours feel under-benefited in their divisions of household labor, while about 34% of women who work standard hours feel under-benefited. Again, these differences are not statistically significant at the .05 level.

These descriptive statistics have implications for substantive differences between people who work standard hours and people who work nonstandard hours. Specifically, spouses of people who work nonstandard hours spend more time in household labor than spouses of people who work standard hours, especially in the case of routine chores. Further, these descriptive analyses support Presser's (1994) finding that husbands of women who work nonstandard hours spend more time in routine chores than husbands of women who work standard hours. Also, women who work nonstandard hours are more likely than women who work standard hours to

perceive that they are over-benefited by their divisions of household labor and less likely than women who work standard hours to perceive that they are under-benefited. Although these relationships were not statistically significant, these descriptive findings might point to the 24/7 economy's role in increasing men's time in household labor and perhaps pushing couples towards equitable divisions of housework. However, the differences between women who work standard hours and women who work nonstandard hours suggest that women working nonstandard hours might feel guilty about the hours their husbands must spend in routine chores, thereby reaffirming the traditional notion that women, not men, are responsible for household labor.

Multivariate Findings

Findings in Tables 8-11 and Table 13 present results from multinomial logistic regressions of perceptions of fairness of household labor on a set of independent variables. For each model, I present only the odds ratios. These can be interpreted as the likelihood of being in a certain category of the dependent variable as opposed to the reference category. Odds ratios that are greater than one indicate that the respondent is more likely to be in that category than in the reference category. Odds ratios that are less than one indicate that the respondent is less likely to be in that category than in the reference category. For each model, the perception that the division of household labor is fair to both spouses is the reference category. Table 12 presents results from an ordinary least squares regression that tests whether women's nonstandard work influences their husbands' hours in routine chores.

Overview of Significant Controls

Findings that remained consistent across models concerned gender, men's education, marriage length, age, gender ideology and men's ratio of hours in paid labor. Across all models

that controlled for gender, women were significantly more likely than men to perceive under-benefit as opposed to fair treatment in their divisions of household labor. For men, higher levels of education for men yielded a higher likelihood of perception of over-benefit. Across all models, length of marriage significantly decreased the likelihood of perceiving under-benefit in divisions of household labor. These findings indicate that the longer people are married, the more complacent they become with their divisions of household labor. There are similar findings regarding age. As age increases, people are less likely to perceive themselves to be either under-benefited or over-benefited. Thus, as age increases, the likelihood of perceiving divisions of household labor to be fair also increases. With regard to gender ideology, a one unit increase in the gender ideology scale (indicating a more egalitarian gender ideology) increases the odds of perceiving to be under-benefited by about 14% (Table 8, Model 1, O.R. 1.14, $p<.05$). This finding is consistent across models with all respondents, but the findings regarding gender ideology do not persist once models are split by gender. There are also consistent findings with regards to men's ratio of hours in paid labor. For men, a one unit increase in this ratio[5] decreases their likelihood of perceiving to be over-benefited by one percent (Table 8, Model 3, O.R. .99, $p<.001$). Thus, as men contribute more than their wives to paid labor, they are less likely to feel that they are over-benefited than fairly treated in their divisions of household labor.

Equity Theory Predictions

Table 8 tests the predictions posed by equity theory. First, Model 1 in Table 8 includes all respondents, and then women and men are analyzed separately in Models 2 and 3. Across all

[5] An example may be useful. The variable of interest here is the ratio of respondent's hours in paid labor to their spouse's hours in paid labor. A value of one on this variable indicates that the two spouses are spending the same amount of hours in paid labor. Consider a case where the respondent works 40 hours and his or her spouse works 20 hours in paid labor. The ratio would then be two. A value of two on this variable indicates that the respondent is spending twice as many hours in paid labor as his or her spouse. A value of three indicates that the respondent is spending three times the number of hours in paid labor as his or her spouse, so on and so forth.

models in Table 8, the predictions posed by equity theory are upheld. Supporting Hypothesis 1, as people's chore ratios increase (meaning they have greater inputs in their divisions of household labor than their spouses), they have a higher likelihood of perceiving that they are under-benefited in their divisions of household labor than fairly treated. As Model 2 in Table 8 shows, a one unit increase in their chore ratio[6] increases women's likelihood of perceiving that they are under-benefited by 4% (O.R. 1.04, $p<.001$). Similarly for men in Model 3 of Table 8, a one unit increase in the chore ratio increases men's odds of perceiving under-benefit by 91% (O.R. 1.91, $p<.001$). Also supporting Hypothesis 1, as unfavorable inequity in the division of household labor increases, respondents are significantly less likely to perceive that they are over-benefited than fairly treated. These findings hold for men and women. Hypothesis 2 is also supported for men and women. As favorable inequity increases (indicated by a decrease in the chore ratio), men and women are more likely to perceive they are over-benefited than fairly treated.

It has previously been noted, however, that equity theory does not address the role that nonstandard work hours may have on the relationship between divisions of household labor and perceptions of fairness. In order to test this relationship, I add dummy variables into the models in Tables 9 and 10 that address whether the respondent or the respondent's spouse works nonstandard hours. Then, I separately interact each dummy variable with the total household labor chore ratio to see if the predictions posed by the needs-based approach or the gendered-needs based approach are supported.

[6] The chore ratio is the ratio of respondent's to partner's hours spent in household chores. A value of one on this variable shows that respondents and partners are spending equal amounts of time in household labor. Consider a case, however, where the respondent spends 20 hours in household labor and the partner spends 10. This would yield a value of two on the chore ratio variable. In this case, the respondent does twice as much household labor as the respondent.

Predictions of the Needs-Based and Gendered-Needs Based Approaches

The first hypothesis posed by the needs-based approach (H3) predicts that the effect of unfavorable inequity on perceptions of under-benefit will be weaker for people whose spouses work nonstandard hours than it will be for people whose spouses work standard hours. In order to test this hypothesis, I add a dummy variable for partner's nonstandard work and then interact it with the total household labor chore ratio. These models are seen in Table 9. First, I analyze all respondents, and then I separately analyze men and women. I present models with and without the interaction term between partner's nonstandard work hours and the total household chore ratio.

Across all of the models in Table 9, the chore ratio is positively related to perceptions of under-benefit. While partner's nonstandard work hours never has a significant direct effect on perceptions of fairness, it does significantly interact with the total household chore ratio for all respondents. When the models are analyzed separately by gender, however, the relationship only holds for women. Specifically, the significant interaction term for women in Model 2 of Table 9 indicates that an increase in their chore ratio has a weaker effect on perceptions of under-benefit for women whose husbands work nonstandard hours than for women whose husbands work standard hours (O.R. 1.22, $p<.05$). Since this interaction term only remains significant for women, this finding only partially supports Hypothesis 3, but it fully supports the prediction posed by Hypothesis 5.

In order to better understand the effect of the interaction between husbands' hours in routine chores and the chore ratio on women's perception of under-benefit, Table 11 presents the predicted probabilities that women will perceive to be under-benefited based on differing levels of the chore ratio and whether their husband works standard or nonstandard hours. As the Table

11 shows, moving from a chore ratio of one (which indicates equity) to a chore ratio of two (which indicates that the wife is doing twice as much household labor as her husband), increases the predicted probability of perceptions of under-benefit by .0093 (.3277-.3184) for women whose husbands work standard hours and .0071 (.2265-.2194) for women whose husbands work nonstandard hours. Thus, the effect of an increase in the chore ratio is weaker for women whose husbands work nonstandard hours than it is for women whose husbands work standard hours, which supports the prediction posed by Hypothesis 5.

A needs-based approach also makes predictions about perceptions of fairness of divisions of household labor when respondents work nonstandard hours. Specifically, Hypothesis 4 predicts that an increase in the chore ratio will have a stronger effect on perceptions of under-benefit for those working nonstandard hours than it will for those who do not. In order to test this hypothesis, I added a dummy variable for whether the respondent works nonstandard hours and then interacted this variable with the total household labor chore ratio. The results of these analyses are presented in Table 10. Again, I present results for all respondents, and then I analyze men and women separately. Each has a model with and without the interaction term between respondent's nonstandard work and the chore ratio. Under the model that includes the interaction term for all respondents in Table 10, the prediction of Hypothesis 4 is not supported. Increases in the chore ratio have a weaker effect on the perceptions of under-benefit for those who work nonstandard hours than those who work standard hours (O.R. 1.28, $p<.05$). When models are separated by gender, however, this relationship only persists for women (O.R. 1.31, $p<.05$). This finding supports the prediction posed by Hypothesis 6, which stated that when women work nonstandard hours, this would weaken the positive relationship between unfavorable inequity and perceptions of under-benefit.

In order to better understand the effect of the interaction between women's hours in routine chores and the chore ratio on women's perception of under-benefit, we can turn to the predicted probabilities presented in the last two columns in Table 11. As the table shows, moving from a chore ratio of one to a chore ratio of two, increases the predicted probability of perceptions of under-benefit by .009 (.3285-.3195) for women who work standard hours and .0069 (.0855-.0786) for women who work nonstandard hours. Thus, the effect of an increase in the chore ratio is weaker for women who work nonstandard hours than it is for women who work standard hours, which supports the prediction posed by Hypothesis 6.

Thus, women who work nonstandard hours are less likely to perceive to be under-benefited by unfavorable inequities than women who work standard hours. The gendered-needs based approach suggests that this relationship occurs because husbands of women who work nonstandard hours spend more time in routine chores, and wives may feel guilty about their husbands completing chores that are incongruent with traditional gender roles. Therefore, the gendered-needs based approach predicts that wives who work nonstandard hours will take on more household labor than their husbands but not perceive to be under-benefited. In order to first test whether the effect of the interaction between unfavorable inequity and wives' nonstandard work hours is mediated by husbands' time in routine chores, I present two models in Table 12. Model 1 in Table 12 shows how the interaction between women's nonstandard work and chore ratio affects their likelihood of perceiving to be under-benefited. In Model 2 of Table 12, I introduce a measure of husbands' time spent in routine chores. As these results show, the significant effect of the interaction between the chore ratio and women's nonstandard work hours on perceptions of under-benefit disappears when the measure for husbands' time spent in routine

chores is added to the model.[7] A one unit increase in their husbands' time spent in routine chores reduces the odds of women's perception of under-benefit by 5% (O.R. .95, p<.001) and increases their odds of perceiving to be over-benefited by 2% (O.R. 1.02, p<.001). While the interaction term between inequity and wife's nonstandard work hours on wife's perceptions of under-benefit is no longer significant once husband's time spent in routine chores, which lends partial support to Hypothesis 7, in order to show that husbands' hours in routine chores actually mediates this relationship, further analysis must be done.

First, it must be shown that women's nonstandard work increases the number of hours husbands spend in routine chores. While it was shown in Table 4 that the mean number of hours spent in routine chores is greater for husbands of women who work nonstandard hours than it is for husbands of women who work standard hours, it is important to show that this relationship exists in a multivariate analysis. As such, results in Table 13 show an ordinary least squares regression where the dependent variable is men's time in routine chores and the independent variable is women's nonstandard work hours. Indeed, husbands of women who work nonstandard hours spend more time in routine chores. Specifically, the predicted number of husbands' hours in routine chores is 2.63 hours greater for women who work nonstandard hours than for women who work standard hours (b=2.63, p<.05).

Second, in order to show that men's hours in routine chores is the mechanism through which women view unfavorable inequitable divisions of household labor as fair, it must be shown that the effect of the chore ratio is less important to women's perception of under-benefit if their husbands are spending time in routine chores. Thus, I present a multinomial logistic

[7] The significant effect of the interaction between the chore ratio and women's nonstandard work hours on perceptions of *over*-benefit persists when the measure for husbands' time in routine chores is added to the model. Women who work nonstandard hours have a higher probability of perceiving to be over-benefited than women who work standard hours. A one unit increase in the chore ratio significantly increases the likelihood that women who work nonstandard hours will perceive to be over-benefited (Table 12, Model 2, O.R. .11 p<.05).

regression model in Table 14. Model 2 introduces an interaction term between husbands' hours in routine chores and the chore ratio. This interaction term is significant (O.R. 1.02, $p<.001$). To better understand this interaction term, I include a graph in Figure 9 that shows the predicted probabilities for women's perception of under-benefit at different levels of the chore ratio as men's hours in routine chores varies from zero to forty. As the graph shows, women's predicted probability of perceiving to be under-benefited is highest when their husbands spend no time in routine chores. Additionally, women with more unfavorable and inequitable divisions of household labor have a higher predicted probability of perceiving to be under-benefited when their husbands spend no time in routine chores than women who have equitable divisions of household labor (as indicated by the chore ratio=1 line). However, the differences in the effect of the chore ratio diminish at high levels of men's routine chores. For example, when men spend twenty hours in routine chores, the differences between the predicted probabilities of perceptions of under-benefit for all levels of the chore ratio is relatively low. Further, the effect of the chore ratio almost disappears completely when husbands spend forty or more hours per week in routine chores. Thus, the chore ratio is less important to women's perceptions of under-benefit provided that their husbands spend time in routine chores, which supports the prediction posed by Hypothesis 8.

Therefore, the positive effect of unfavorable and inequitable divisions of household labor on women's perceptions of under-benefit diminishes at higher levels of men's time in routine chores. This provides support for the notion that women are concerned about the types of chores their husbands perform. Since routine chores are incongruent with traditional masculine gender roles because they are typically frequent, inflexible, and feminine, wives seem to take on more household labor than their husbands when their husbands spend time in routine chores as a way

to restore traditional gender roles within their household. Thus, it appears that the types of chores husbands carry out (rather than the number of hours they perform) are an extremely important factor in women's relative contributions to household labor as well as their perceptions of fairness. Since women's nonstandard work hours significantly increase men's time in routine chores, it is possible that nonstandard work hours are a way for the paradox of women doing more household labor than their husbands but not perceiving to be under-benefited to persist.

Table 1: Descriptive Statistics

Sex	**N**	**Percentage**				
Men	1,999	47.73%				
Women	2,189	52.27%				
	All Respondents		**Men**		**Women**	
Race/Ethnicity	**N**	**Percentage**	**N**	**Percentage**	**N**	**Percentage**
White	3,543	84.60%	1,672	83.64%	1,871	85.47%
Black	368	8.79%	187	9.35%	181	8.27%
Hispanic	229	5.47%	118	5.90%	111	5.07%
Other	48	1.15%	22	1.10%	26	1.19%
Education	**N**	**Percentage**	**N**	**Percentage**	**N**	**Percentage**
High School Degree or Less	2,070	49.43%	945	47.27%	1125	51.39%
Some College	994	23.73%	459	22.96%	535	24.44%
College Degree	708	16.91%	349	17.46%	359	16.40%
Advanced Degree	416	9.93%	246	12.31%	170	7.77%
Perceptions of Fairness of Household Labor	**N**	**Percentage**	**N**	**Percentage**	**N**	**Percentage**
Under-Benefit	845	20.18%	112	5.60%	733	33.49%
Fair	2,644	63.13%	1,318	65.93%	1,326	60.58%
Over-Benefit	699	16.69%	569	28.46%	130	5.94%
Time Spent in Household Labor	**Mean**	**S.D.**	**Mean**	**S.D.**	**Mean**	**S.D.**
Total Chores	30.07	24.77	20.33	15.19	38.97	28.23
Total Household Labor Chore Ratio	2.43	5.19	.71	.72	3.99	6.78
Routine Chores	19.27	19.31	8.17	8.21	29.42	20.90
	Mean	**S.D.**	**Mean**	**S.D.**	**Mean**	**S.D.**
Children	2.07	1.66	1.81	1.73	2.31	1.55
Length of Marriage	19.63	13.22	19.67	13.31	19.59	13.13
Gender Ideology	2.86	.70	2.77	.68	2.94	.70
Age	44.67	13.66	45.83	14.13	43.61	13.13
Income	$28,992	$24,418	$36,986	$27,797	$20,567	$16,504
Proportion of Income	.63	.24	.71	.20	.55	.25
Hours in Paid Labor	28.55	22.14	35.64	22.13	21.95	20.01
Paid Labor Ratio	7.41	16.25	11.89	20.20	3.33	9.89

Table 2: Tests of Mean Differences in Household Chores by Work Schedule for All Respondents

	Respondents Working Standard Hours		**Respondents Working Nonstandard Hours**	
	N=4013		N=175	
	Mean	Standard Deviation	Mean	Standard Deviation
Hours in Total Household Labor, n.s.	30.14	24.60	28.41	28.27
Partner's Hours in Total Household Labor#	26.85	23.69	35.55	31.02
Total Household Labor Ratio#	2.47	5.29	1.36	1.82
Routine Chores#	19.42	19.36	15.95	18.02
Partner's Hours in Routine Chores#	16.78	18.08	22.99	20.65
# = t test of mean difference with unequal variances assumed is significant at the .05 level. n.s. = not significant				

Table 3: Tests of Mean Differences in Household Chores by Work Schedule for Men

	Men Working Standard Hours		**Men Working Nonstandard Hours**	
	N=1889		N=110	
	Mean	Standard Deviation	Mean	Standard Deviation
Hours in Total Household Labor, n.s.	20.15	14.52	23.4	23.83
Wife's Hours in Total Household Labor, n.s.	36.94	25.01	42.66	30.47
Total Household Labor Ratio n.s.	.72	.73	.65	.52
Routine Chores n.s.	8.10	8.06	9.35	10.49
Wife's Hours in Routine Chores n.s.	27.41	19.05	30.22	21.44
n.s. = not significant				

Table 4: Tests of Mean Differences in Household Chores by Work Schedule for Women

	Women Working Standard Hours		**Women Working Nonstandard Hours**	
	N=2124		N=65	
	Mean	Standard Deviation	Mean	Standard Deviation
Hours in Total Household Labor n.s.	39.03	28.08	36.88	33.02
Husband's Hours in Total Household Labor n.s.	17.88	18.25	23.88	28.32
Total Household Labor Ratio#	4.04	6.87	2.57	2.49
Routine Chores n.s.	29.49	20.86	27.12	22.22
Husband's Hours in Routine Chores#	7.31	10.23	10.74	11.58
# = t test of mean difference with unequal variances assumed is significant at the .05 level. n.s. = not significant				

Table 5: Cross-Tabulation of Work Schedule by Perceptions of Fairness of Divisions of Household Labor for All Respondents

	Respondents Working Standard Hours	**Respondents Working Nonstandard Hours**	**Total**
Under-Benefit	821 20.46%	24 13.71%	845 20.18%
Fair	2,530 63.05%	114 65.14%	2,644 63.13%
Over-Benefit	662 16.50%	37 21.14%	699 16.69%
Total	4,013 100.00%	175 100.00%	4,188 100.00%
Likelihood Ratio Chi-Square: 6.37* * p<.05			

Table 6: Cross-Tabulation of Work Schedule by Perceptions of Fairness of Divisions of Household Labor for Men

	Men Working Standard Hours	**Men Working Nonstandard Hours**	**Total**
Under-Benefit	106 5.61%	6 5.45%	112 5.60%
Fair	1,245 65.91%	73 66.36%	1,318 65.93%
Over-Benefit	538 28.48%	31 28.18%	569 28.46%
Total	1,889 100.00%	110 100.00%	1,999 100.00%
Likelihood Ratio Chi-Square: .01, not significant			

Table 7: Cross-Tabulation of Work Schedule by Perceptions of Fairness of Divisions of Household Labor for Women

	Women Working Standard Hours	**Women Working Nonstandard Hours**	**Total**
Under-Benefit	715 33.66%	18 27.69%	733 33.49%
Fair	1,285 60.50%	41 63.08%	1,326 60.58%
Over-Benefit	124 5.84%	6 9.23%	130 5.94%
Total	2,124 100.00%	65 100.00%	2,189 100.00%
Likelihood Ratio Chi-Square: 1.83, not significant			

Table 8: Multinomial Logistic Regression of Perceptions of Fairness on Divisions of Household Labor and Control Variables

	Model 1: All Respondents		***Model 2: Women***		***Model 3: Men***	
	Under-Benefit	***Over-Benefit***	***Under-Benefit***	***Over-Benefit***	***Under-Benefit***	***Over-Benefit***
Total Household Labor Chore Ratio	1.04***	.65***	1.04***	.87**	1.89***	.11***
Ratio of Hours in Paid Labor	.99	.99*	1.00	1.00	.99	.99***
Income	.84	1.23	.79	.96	1.81	.84
Children	1.02	1.07*	1.02	1.01	1.03	1.08*
Length of Marriage	.99*	.99	.99	.99	.95***	.99
Gender Ideology	1.14*	.93	1.10	1.09	1.27	1.02
Age	.99**	.97***	.98**	1.00	1.00	.96***
White[a]	.88	1.85***	.95	.93	.63	2.00**
Hispanic	.77	1.23	.78	.71	.66	1.33
Other Race	.80	.85	.70	.00	1.24	1.24
Some College[b]	1.22	1.78***	1.14	1.15	1.42	2.41***
College Degree	1.29*	1.82***	1.28	1.50	1.30	2.44***
Advanced Degree	1.52**	2.10***	1.61**	1.25	.93	3.02***
Female	5.09***	.41***	---	---	---	---
N	4188		2189		1999	
Chi^2	1147.29***		115.43***		456.51***	

Note: **The numbers in the table are exponentiated coefficients. Fair to both is the reference category of the dependent variable.**
a: For race, black is the omitted category
b: For education, high school degree or less is the reference category
***p<.05, **p<.01 ***p<.001**

Table 9: Multinomial Logistic Regression of Perceptions of Fairness on Divisions of Household Labor, Partners' Nonstandard Work, and Control Variables

	All Respondents				***Women***				***Men***			
	Model 1		**Model 2**		**Model 1**		**Model 2**		**Model 1**		**Model 2**	
	Under-Benefit	**Over-Benefit**	**Under-Benefit**	**Over-Benefit**	**Under-Benefit**	**Over-Benefit**	**Under-Benefit**	**Over-Benefit**	**Under-Benefit**	**Over-Benefit**	**Under-Benefit**	**Over-Benefit**
Chore Ratio	1.04***	.66***	1.04***	.63***	1.04***	.87**	1.03***	.86**	1.89***	.11***	1.91***	.11***
Respondent WNSH[a]	.78	1.02	.78	1.02	.74	1.30	.75	1.30	.87	1.03	.86	1.03
Partner WNSH	1.05	1.14	.63	.60	1.11	1.48	.59	.82	.80	.89	4.05	.58
ChoreXPartnerWNSH	---	---	1.20*	1.56**	---	---	1.22*	1.26	---	---	.13	2.21
Ratio of Hours in Paid Labor	.99	1.00*	.99	.99*	.99	1.00	1.00	1.00	.99	.99***	.99	.99***
Income	.84	1.22	.84	1.22	.79	.97	.79	.97	1.80	.84	1.73	.84
Children	1.02	1.07*	1.02	1.07*	1.02	1.01	1.02	1.01	1.03	1.08*	1.03	1.08*
Length of Marriage	.99*	.99	.99**	.99	.99	.99	.99	.99	.95***	.99	.95***	.99
Gender Ideology	1.15*	.93	1.15*	.93	1.10	1.08	1.11	1.08	1.27	1.02	1.27	1.02
Age	.99**	.97***	.99**	.97***	.98**	1.00	.98**	1.00	1.00	.96***	1.01	.96***
White[b]	.88	1.87***	.87	1.84***	.96	.97	.95	.96	.62	2.00**	.62	2.00**
Hispanic	.76	1.24	.75	1.23	.78	.74	.76	.72	.65	1.32	.65	1.32
Other Race	.79	.85	.79	.84	.69	.00	.70	.00	1.24	1.24	1.28	1.22
Some College[c]	1.22	1.79***	1.22	1.78***	1.15	1.15	1.14	1.14	1.42	2.41***	1.44	2.41***
College Degree	1.29*	1.83***	1.28*	1.84***	1.28	1.53	1.27	1.52	1.29	2.44***	1.29	2.44***
Advanced Degree	1.51**	2.12***	1.49*	2.10***	1.61**	1.30	1.58	1.28	.93	3.02***	.96	3.03***
Female	5.06***	.41***	5.05***	.41***	---	---	---	---	---	---	---	---
N	4188		4188		2189		2189		1999		1999	
Chi^2	1148.75***		1161.43***		118.43***		127.53***		456.83***		459.60***	

Notes: **The numbers in the table are exponentiated coefficients.**
Fair to both is the reference category of the dependent variable.
a: WNSH=Works Nonstandard Hours
b: For race, black is the reference category
c: For education, high school degree or less is the reference category
***p<.05, **p<.01 ***p<.001**

Table 10: Multinomial Logistic Regression of Perceptions of Fairness on Divisions of Household Labor, Respondents' Nonstandard Work Hours, and Control Variables

	All Respondents				***Women***				***Men***			
	Model 1		**Model 2**		**Model 1**		**Model 2**		**Model 1**		**Model 2**	
	Under-Benefit	**Over-Benefit**	**Under-Benefit**	**Over-Benefit**	**Under-Benefit**	**Over-Benefit**	**Under-Benefit**	**Over-Benefit**	**Under-Benefit**	**Over-Benefit**	**Under-Benefit**	**Over-Benefit**
Chore Ratio	1.04***	.66***	1.04***	.67***	1.04***	.87**	1.03***	.88**	1.89***	.11***	1.87***	.12***
Respondent WNSH[a]	.78	1.02	.42*	3.88**	.74	1.30	.33*	13.93**	.87	1.03	.47	2.25
ChoreX Respondent WNSH	1.05	1.14	1.28*	.10*	1.11	1.48	1.31*	.10*	.80	.89	1.70	.19
Partner WNSH	---	---	1.05	1.15	---	---	1.12	1.54	---	---	.81	.89
Ratio of Hours in Paid Labor	.99	1.00*	.99	.99*	.99	1.00	1.00	.99	.99	.99***	.99	.99***
Income	.84	1.22	.84	1.21	.79	.97	.78	1.01	1.80	.84	1.79	.84
Children	1.02	1.07*	1.02	1.07*	1.02	1.01	1.02	1.00	1.03	1.08*	1.03	1.09
Length of Marriage	.99*	.99	.99*	.99	.99	.99	1.00	.99	.95***	.99	.95***	.99
Gender Ideology	1.15*	.93	1.14*	.94	1.10	1.08	1.10	1.06	1.27	1.02	1.27	1.02
Age	.99**	.97***	.99**	.97***	.98**	1.00	.98**	1.00	1.00	.96***	1.00	.96***
White[b]	.88	1.87***	.86	1.85***	.96	.97	.94	.99	.62	2.00**	.62	2.00**
Hispanic	.76	1.24	.76	1.27	.78	.74	.77	.77	.65	1.32	.62	1.33
Other Race	.79	.85	.78	.80	.69	.00	.68	.00	1.24	1.24	1.24	1.18
Some College[c]	1.22	1.79***	1.23	1.81***	1.15	1.15	1.15	1.10	1.42	2.41***	1.42	2.43***
College Degree	1.29*	1.83***	1.28*	1.86***	1.28	1.53	1.27	1.50	1.29	2.44***	1.29	2.46***
Advanced Degree	1.51**	2.12***	1.51**	2.12***	1.61**	1.30	1.61**	1.30	.93	3.02***	.91	3.01***
Female	5.06***	.41***	4.99***	.40***	---	---	---	---	---	---	---	---
N	4188		4188		2189		2189		1999		1999	
Chi[2]	1148.76***		1170.73***		118.43***		133.30***		456.83***		461.22***	

Note: **The numbers in the table are exponentiated coefficients.**
Fair to both is the reference category of the dependent variable.
a: WNSH=Works Nonstandard Hours
b: For race, black is the reference category
c: For education, high school degree or less is the reference category
***p<.05, **p<.01 ***p<.001**

Table 11: Women's Predicted Probabilities of Perceiving to be Under-Benefited in Divisions of Household Labor

	Women with Husbands Who Work Standard Hours	Women with Husbands who Work Nonstandard Hours	Women who Work Standard Hours	Women who Work Nonstandard Hours
Chore Ratio				
1	.3184	.2194	.3195	.0786
2	.3277	.2265	.3285	.0855
4	.3458	.2403	.3462	.1000
10	.3967	.2812	.3984	.1464

Table 12: Multinomial Logistic Regression of Women's Perceptions of Fairness on Divisions of Household Labor, Respondents' Nonstandard Work, Husbands' Time in Routine Chores, and Control Variables

	Model 1		*Model 2*	
	Under-Benefit	**Over-Benefit**	**Under-Benefit**	**Over-Benefit**
Total Household Labor Chore Ratio	1.03***	.88**	1.02*	.94
Respondent WNSH[a]	.33*	13.93**	.41	13.53*
ChoreXWNSH	1.31*	.10*	1.23	.11*
Partner WNSH	1.12	1.54	1.18	1.51
Partner's Hours in Routine Chores	---	---	.95***	1.02**
Ratio of Hours in Paid Labor	1.00	.99	1.01	.99
Income	.78	1.01	.80	.99
Children	1.02	1.00	1.03	.98
Length of Marriage	1.00	.99	.99	.99
Gender Ideology	1.10	1.06	1.15	1.07
Age	.98**	1.00	.98***	1.00
White[b]	.94	.99	.91	1.00
Hispanic	.77	.77	.75	.68
Other Race	.68	.00	.68	.00
Some College[c]	1.15	1.10	1.15	1.11
College Degree	1.27	1.50	1.30	1.57
Advanced Degree	1.61**	1.30	1.62**	1.38
N	2189		2189	
Chi^2	133.30***		204.24***	

Notes: **The numbers in the table are exponentiated coefficients.**
Fair to both is the reference category of the dependent variable.
a: WNSH=Works Nonstandard Hours
b: For race, black is the reference category
c: For education, high school degree or less is the reference category
***p<.05, **p<.01 ***p<.001**

Table 13: Ordinary Least Squares Regression of Men's Hours in Routine Chores on Wife's Nonstandard Work Hours and Control Variables

Dependent Variable: Husband's Hours in Routine Chores	Beta
Wife Works Nonstandard Hours	2.63*
Husband Works Nonstandard Hours	1.10
Ratio of Hours in Paid Labor	.15***
Income	.91
Children	.19
Length of Marriage	-.04
Gender Ideology	.84*
Age	-.004
White[a]	-1.03
Hispanic	.60
Other Race	.26
Some College[b]	.05
College Degree	.09
Advanced Degree	-.29
Constant	5.13**
N=2189	

a: For race, black is the reference category
b: For education, high school degree or less is the reference category
***p<.05, **p<.01, ***p<.001**

Table 14: Multinomial Logistic Regression of Women's Perceptions of Fairness on Divisions of Household Labor, Husbands' Time in Routine Chores, Interaction between Chore Ratio and Routine Chores, and Control Variables

	Model 1		*Model 2*	
	Under-Benefit	**Over-Benefit**	**Under-Benefit**	**Over-Benefit**
Total Household Labor Chore Ratio	1.02*	.93	1.01	.97
Husbands' Hours in Routine Chores	.95***	1.02**	.92***	1.08***
Chore Ratio X Husbands' Hours in Routine Chores	---	---	1.02***	.93***
Respondent WNSH[a]	.81	1.29	.81	1.21
Partner WNSH	1.17	1.47	1.19	1.60
Ratio of Hours in Paid Labor	1.01	.99	1.01	.98
Income	.81	.96	.82	.91
Children	1.04	.99	1.02	1.02
Length of Marriage	.99	.99	.99	.99
Gender Ideology	1.15	1.09	1.17*	1.12
Age	.98**	1.00	.98**	.99
White[b]	.93	.98	.90	1.07
Hispanic	.75	.66	.76	.51
Other Race	.69	.00	.67	.00
Some College[c]	1.14	1.16	1.15	1.07
College Degree	1.31*	1.60	1.31	1.51
Advanced Degree	1.62**	1.38	1.63**	1.30
N	2189		2189	
Chi^2	192.29***		261.67***	

Notes: **The numbers in the table are exponentiated coefficients.**
Fair to both is the reference category of the dependent variable.
a: WNSH=Works Nonstandard Hours
b: For race, black is the reference category
c: For education, high school degree or less is the reference category
***p<.05, **p<.01 ***p<.001**

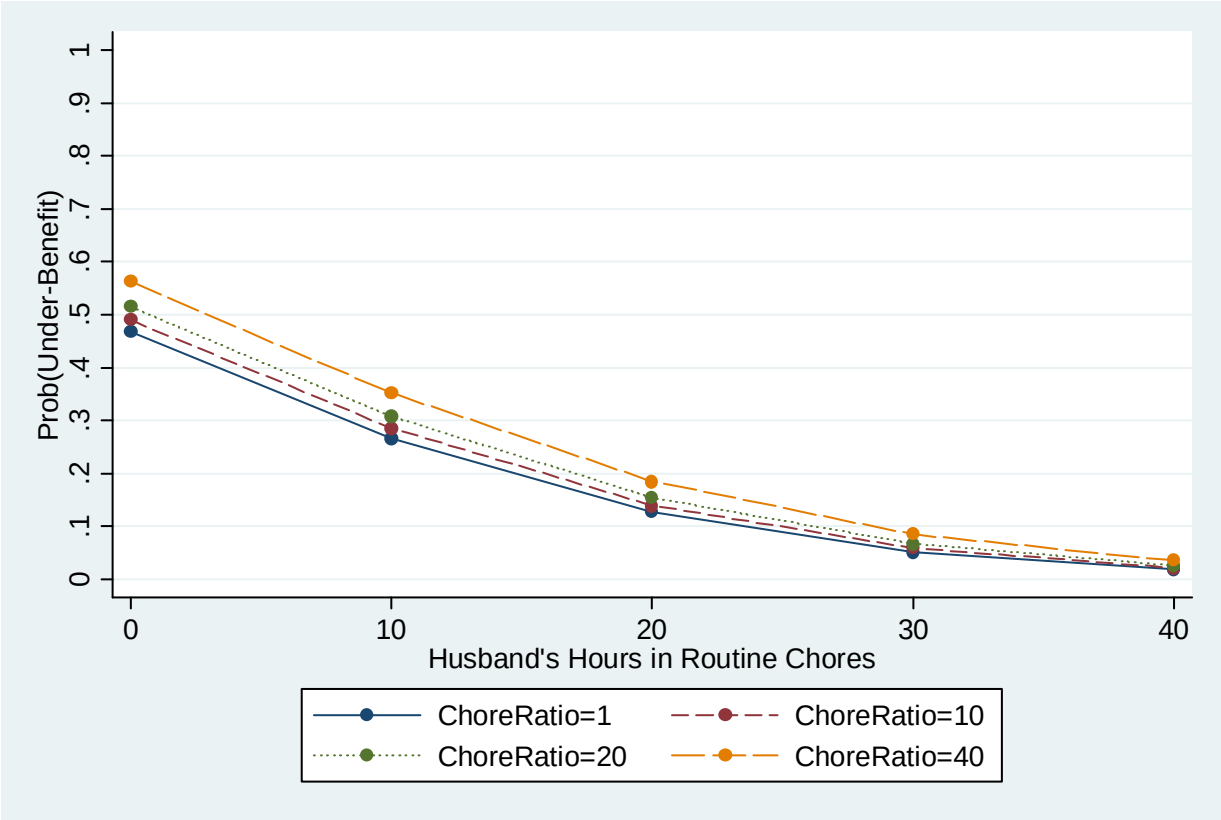

Figure 9: Graph of the Effect of the Interaction between Chore Ratio and Husband's Hours in Routine Chores on Women's Probability of Perceiving to be Over-Benefited

CHAPTER 5

DISCUSSION AND CONCLUSION

This paper sought to understand how nonstandard work hours affect the division of household labor and perceptions of fairness of these divisions. There is a consistent paradox in the literature on household labor that women do more household labor than men, but most women do not perceive to be under-benefited by this relationship. This study specifically sought to understand the way in which nonstandard work hours affects this paradox. Hypotheses based on equity theory, a needs-based approach, and a gendered-needs based approach to distributive justice were presented to explain the multiple theoretical views on this topic.[8]

Across all models, the predictions posed by equity theory were upheld. As inequitable divisions of household labor increased, respondents were more likely to perceive these arrangements to be unfair than fair. However, incorporating nonstandard work hours into the analysis provided interesting results. Specifically, women who work nonstandard hours (or have husbands who do) are less likely than women who work standard hours (or have husbands who do) to perceive to be under-benefited by unfavorable inequities in their divisions of household labor. Since the effect of the interaction between women's nonstandard work and the chore ratio on women's perception of under-benefit did not remain significant when models controlled for husbands' hours in routine chores, it was necessary to do exploratory analyses to further understand this relationship. Results from these analyses showed two important details. First, women's nonstandard work is significantly and positively related to men's time in routine

[8] For a summary of all hypotheses and their extent of support, see Table 15.

chores. Second, the effect of unfavorable and inequitable divisions of household labor diminishes when husbands spend time in routine chores.

Thus, these findings have important substantive implications for the ways men and women divide their household labor. As the effect of the interaction between women's nonstandard work hours and the chore ratio on women's perception of under-benefit disappeared when husbands' time in routine chores was taken into account, it may be the case that nonstandard work hours are a way for women to continue to allow their husbands out of household labor (as the gendered-needs based approach suggests). This relationship suggests that when their husbands participate in chores that are not in line with traditional gender roles, women who work nonstandard hours are less sensitive to inequities. As such, it is possible that women's nonstandard work hours indirectly perpetuate the paradox of women's lack of perceived injustice over divisions of household labor. That is, husbands of women who work nonstandard hours spend more time in routine chores since their wives may not be home during the time that these chores need to be done. Since these chores are frequent and rather inflexible, women's participation in nonstandard work necessitates that men complete them. When men do, however, their wives are not more likely to perceive to be under-benefited than fairly treated by unfavorable and inequitable divisions of household labor. This suggests that women's lack of perceived injustice over inequitable divisions of household labor persists through the 24/7 economy. Husbands only need to contribute slightly to their divisions of household labor through routine chores in order for their wives to view inequities as fair.

The theoretical implications of these findings suggest that future applications using a gendered-needs based approach should not only consider the importance of nonstandard work hours but also the meaning of performing household labor that is not in line with traditional

gender roles that may be necessitated by nonstandard work. Since this relationship was accounted for by men's hours in routine chores, this suggests that the paradox persists through the 24/7 economy, as women's time in nonstandard work has been shown to be positively related to men's time in routine chores (Presser 1994).

Thus, future applications using a gendered-needs based approach should focus on the importance women place on their spouses completing tasks that are incongruent with traditional gender roles when women's paid work necessitates this discrepancy. As this incongruence seems to be the mechanism through which women who work nonstandard hours continue to view inequities as fair, future projects regarding divisions of household labor will benefit by considering that women may place more weight on the types of chores their husbands do, rather than the amount of work that their husbands complete. That is, women who work nonstandard hours may continue to do more household labor than their husbands since they may feel that their paid work changes their divisions of household labor in such a way that it challenges their husbands' masculinity. As a result, women may attempt to make up for this incongruence by taking on more household labor than their husbands but not perceiving to be under-benefited by these arrangements.

Limitations and Directions for Future Research

While this project has important substantive and theoretical implications, no project is without limitations. The main limitation of this research is that these analyses only control for the number of children and not time spent in childcare. As it is possible that time spent in childcare could affect people's perceptions of fairness of household labor, future research should consider childcare as a factor. The reason that childcare was not considered in these analyses is that the National Survey of Families and Households has a separate measure for respondent's

perceptions of fairness of childcare, so the fairness in household labor variable explicitly excludes childcare. Similarly, the NSFH has separate measures for perceptions of fairness of working for pay and spending money. Thus, future research might examine an overall measure of household fairness that includes all four of these measures in an attempt to understand how the 24/7 economy affects the relationship between how couples negotiate important relationship factors across marital domains and whether they perceive the outcomes of these negotiations to be fair. This type of analysis, however, lies outside the scope of this paper.

Another way to address this limitation could be by running separate analyses for people with and without children, so that time spent in childcare could be included as a control variable in the model for parents. If there were substantial differences between the models of those with and without children, it might imply that childcare is a factor in perceptions of fairness of household labor. It was not possible to run separate analyses for parents and non-parents in this study, however, as there were not enough cases of nonstandard work among people who did not have children to construct the necessary interaction terms.

Another limitation of this project that future research should examine is emotional reactions to perceptions of injustice. While it was not within the scope of this project to measure the emotional reactions of perceptions of injustice, this is nonetheless an important factor to consider. Although equity theory predicts that perceptions of injustice lead to negative emotions, this is not always the case. It is certainly possible that people can perceive a situation to be unfair but not feel angry or upset by it. If indeed it is the case that the effect of inequity was stronger for women who work nonstandard hours and women whose partners work nonstandard hours on perceptions of under-benefit, then it is likely that in order to change their divisions of household labor, these women will also have to feel anger or resentment upon perceptions of

under-benefit. This limitation shows the need for longitudinal data on divisions of household labor, nonstandard work hours, and perceptions of fairness that the NSFH does not provide. Thus, while the 24/7 economy may affect women's lack of perceived injustice over household labor, strong emotional reactions against inequitable divisions of household labor may also be necessary to bring couple's towards equitable divisions of household labor. Also, longitudinal data would be useful for future projects because it would allow researchers to consider how moving in or out of nonstandard work schedules affects divisions of household labor and perceptions of fairness over time.

Conclusion

The sociological relevance of this study is twofold. First, I incorporated justice theory with a feminist theorizing through the elaboration of a gendered-needs based approach to distributive justice. I also extended equity theory and a traditional needs-based approach to understand the effects of nonstandard work on perceptions of fairness in the division of household labor. I then tested predictions derived from these three theoretical perspectives. Though the predictions posed by equity theory held across models, interesting results occurred based on gender and nonstandard work. People perceive to be under-benefited by unfavorable and inequitable divisions of household labor. Similarly, as favorable inequity increases, this increases the likelihood of perceiving to be over-benefited as opposed to being fairly treated. Equity theory does not provide a complete explanation, however, as not only does nonstandard work affect the relationship between equity and fairness perceptions, but this relationship is mediated by men's participation in routine chores.

Second, the results of this paper have substantive implications for the paradox of women's lack of perceived injustice of unfavorable inequitable divisions of household labor.

While the positive relationship between unfavorable inequity and perceptions of under-benefit was diminished when women work nonstandard hours, this relationship did not persist when their husbands' hours in routine chores were taken into account. This points to the notion that when husbands participate in chores that are not in line with traditional gender roles (perhaps due to women's time spent in nonstandard work), then women no longer feel under-benefited by unfavorable inequities in their household labor. Thus, women seem to be heavily influenced by the types of chores their husbands perform. This suggests that the 24/7 economy serves as a way for the paradox to persist. As women's nonstandard work hours necessitate men completing chores that are incongruent with traditional gender roles, women do not seem to recognize their needs that come with working nonstandard hours, and they also privilege the needs of their husbands who they feel may have their masculinity called into question by performing these routine chores. Thus, men need only contribute slightly to their divisions of household labor in ways that are incongruent with traditional gender roles in order for women to view unfavorable inequities as fair. Provided that men spend time in chores in which they have not traditionally been held accountable, the 24/7 economy serves as a way for the paradox of women's lack of perceived injustice over inequitable divisions of household labor to persist.

Table 15: Summary of Hypotheses and Extent of Support

Hypothesis	**Support**
Hypothesis 1: As unfavorable inequity in the division of household labor increases, the likelihood of perceiving one's self to be under-benefited increases, and the likelihood of perceiving one's self to be over-benefited decreases.	Supported
Hypothesis 2: As favorable inequity in the division of household labor increases, the likelihood of perceiving one's self to be over-benefited increases, and the likelihood of perceiving one's self to be under-benefited decreases.	Supported
Hypothesis 3: Partner's nonstandard work will moderate the positive relationship between unfavorable inequity and perceptions of under-benefit such that the effect of unfavorable inequity on perceptions of under-benefit will be weaker for people whose spouses work nonstandard hours than it will be for people whose spouses work standard hours	Supported only for women
Hypothesis 4: Self's nonstandard work will moderate the positive relationship between unfavorable inequity and perceptions of under-benefit such that the effect of unfavorable inequity on perceptions of under-benefit will be stronger for people who work nonstandard hours than it will be for people who work standard hours.	Not Supported
Hypothesis 5: Husbands' (but not wives') nonstandard work will moderate the positive relationship between unfavorable inequity and perceptions of under-benefit such that the effect of unfavorable inequity on perceptions of under-benefit will be weaker for wives of nonstandard workers than it will be for wives of standard workers.	Supported
Hypothesis 6: The positive relationship between unfavorable inequity and under-benefit will be weaker for women who work nonstandard hours than for women who work standard hours.	Supported, but no longer meaningful due to support for H7 and H8
Hypothesis 7: The effect of the interaction between unfavorable inequity and wife's nonstandard work hours on wife's perceptions of under-benefit will be mediated by husband's time spent in routine chores.	Supported
H8: Husband's hours in routine chores will moderate the relationship between wife's unfavorable inequity and perceptions of under-benefit such that higher levels of unfavorable inequity for wives will be less influential on their perceptions of under-benefit when their husbands spend time in routine chores.	Supported

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