

## ABSTRACT

Title of Document: FULL-TIME MOTHERHOOD:  
UNDERSTANDING TRANSITION  
DYNAMICS.

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In this dissertation, I investigate the determinants of labor force exits and entrances among married mothers with children under 15 considering work, family, and demographic characteristics, using the Survey of Income and Program Participation 1996 panel data. Three theoretical streams guide the research and interpret the findings—neoclassical economic theory, the life course perspective, and the gender perspective.

Using discrete-time event history analysis, I find that wives who outearn their husbands are more likely to exit the labor force. An interaction with other family income (excluding the wife's earnings) reveals that the main effect of the wife as a primary provider is negative, and primary provider wives are more likely to exit the labor force as other family income rises.

I also find that married mothers who delay childbearing are more likely to exit the labor force. An interaction with personal earnings lends support to the life course

perspective's argument that delayed childbearers may believe that they can reenter the labor force without suffering downward mobility, as high earners who delay childbearing more likely to exit labor force. However, an interaction with education level does not, as delayed childbearers with a college degree are less likely to exit the labor force.

It appears that entrances are driven more by the human capital attributes and labor force commitment of the mother than by family considerations. The effect of predicted wages on entrances into part-time employment is positive, suggesting that married mothers who are predicted to attain higher wages may be able to use their higher market value to negotiate part-time employment.

Labor force exits do not appear to differ by the reason for the labor force exit—the determinants of labor force exits appear to be similar regardless of whether the mother exits to care for children and family or for other reasons. However, full-time mothers seem to be less inclined to enter the labor force than other mothers as full-time mothers with high predicted earnings are not more likely to enter the labor force and the introduction of a new baby is not related to a labor force entrance.

FULL-TIME MOTHERHOOD: UNDERSTANDING TRANSITION DYNAMICS

By

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## **Dedication**

I dedicate this dissertation to my three children, Marliese, Eva Lian, and Elias—May their generation find egalitarian ways to balance the demands of work and family.

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## **Chapter 1: Statement of the Problem**

On all accounts, women have made great strides in achieving equality with men since the 1950s. Women's labor force participation and attachment have increased, more women than men in recent cohorts have college degrees, and women's earnings have risen relative to men's. Yet, evidence of a stalled revolution is mounting. A steady drumbeat of research finds that the sweeping changes in the work and family lives of Americans ushered in during the 1970s and 1980s have, for the most part, stalled in the 1990s (Cotter, Hermsen, and Vanneman 2004; Hochchild and Machung 1989; Sayer, Cohen, and Casper 2004; Smith, Downs, and O'Connell 2001; Williams 2000). Women, it seems, have reached a limit on the amount of paid work they can take on, by decreasing their housework to a minimum level and cajoling their husbands to increase their domestic responsibilities, but this new "equilibrium" falls short of full market equality with men (Sayer et al. 2004). Despite their increasing time spent in market work, women still are primarily responsible for the care of children and other housework (Coltrane 2000). In fact, a shift to more part-time work among women is visible among first-time mothers before and after the birth (Smith et al. 2001); and for the first time in decades, a decline in the labor force participation rate of mothers with infants was documented (Bachu and O'Connell 2000; Downs 2003). It appears that some of the women who are poised to compete evenly with men in the market place are "opting out," rather than breaking glass ceilings or finding ways to balance their work and family responsibilities (Belkin 2003).

Labor force exits of high-earning women, and particularly among women who outearn their husbands, raise questions about gender equality in the home and the workplace. Why is it that men can have high-earning, demanding careers and have a family too, whereas women seem to have to choose between the two?

This dissertation aims to answer the question, “which women shed their worker role, and which married women take on employment”? Some point to the current social organization of work, one that marginalizes those who have care-giving responsibility by reinforcing men’s position of power and authority in the home and workplace (Moen and Yu 2000; Williams 2000). The cultural template of the family has undergone significant change since the middle of the 20<sup>th</sup> century. No longer do the majority of American families resemble the breadwinner/homemaker model, characterized by a gendered separation of spheres, with men responsible only for paid market work and women responsible only for unpaid domestic work (Casper and Bianchi 2002; Moen and Yu 2000; Tilly and Scott 1978). Moen and Yu (2000) argue that because work and society remain structured around this outdated model, we are left in the midst of a structural lag. The breadwinner/homemaker model is predicated on the notion of the ideal worker who can devote endless time to work because there is a family member (typically a wife) at home devoted to the care of children, the preparation of meals, and all other family functions (Moen and Yu 2000; Williams 2000). The entrance of women into paid market work has been accompanied by some change on the part of men and the organization of work, but some question if it has been enough. Women—especially mothers—are still saddled with the “second shift” (Hochschild with Machung 1989).

There is ample evidence that contemporary families are feeling squeezed by the demands of their work and family responsibilities. Few workers have family members at home to manage their family responsibilities and personal involvements, thus freeing them up to concentrate exclusively on market work (Moen and Wethington 1992; Moen and Yu 2000; Spain and Bianchi 1996). The widespread entrance of women into the market place has reduced the back-stage support that men historically have received, and most employed women, are either divorced, never married, or married to men who work full time. Thus, women receive little or no back stage support (Hochchild with Machung 1989) and take on the second shift often single-handedly. Some find that the typical hours worked per week has increased, with workers putting in more hours on the job (Jacobs and Gerson 1998; Schor 1991) and workers experience a general feeling of being overworked and rushed (Robinson and Godbey 1997). While others have found that the average hours have not increased, the number of weeks worked has increased and the percent working very long hours has increased (Bianchi 2000; Gerson and Jacobs 2001). Success at work is often times equated with high amounts of time spent on the job, and the culture of occupations rewards those employees that put in overtime at the expense of family involvement (Hochchild 1997). These overloads are particularly apparent among two-earner families, and especially among married employed mothers.

At the same time, socially prescribed gender roles in the home have remained for the most part unchanged. Attitudes of acceptable behavior for women and men are slowly changing, but it is still socially more acceptable for women to be primarily

responsible for domestic tasks and men to be the breadwinner. Blair-Loy (2003) explains that the conflict experienced by mothers employed in time-intensive occupations is due to the collision of two cultural schemas—the work devotion schema and the family devotion schema—that compete for a mother’s time and soul. Research on family balance and the time bind reveals that it is female workers, and particularly working mothers, who are doing the balancing and feeling the most squeezed and rushed (Hochschild with Machung 1989). Research also shows that employed mothers do more combined paid and nonpaid work than employed fathers (Hochschild with Machung 1989; Robinson and Godbey 1997), which likely contributes to the reason women feel more imbalance than men (Milkie and Peltola 1999). Although men’s time spent doing housework has increased, the nature of typical male and female housework requires different time allocation and leads to differing levels of stress and overload. For example, Milkie and Peltola (1999) find that male tasks tend to be less frequent and flexible (yard work and car maintenance), while female tasks are more routine and time dependent (child care, meal preparation), leading women to feel imbalanced and stressed from the overload. Further, married men more often have a wife who works fewer hours than they do (either part time or not at all) who take care of the home front and ease the burden of work and family life; whereas married employed women often have a husband who works full time, resulting in no one at home to do the back stage support required to enable her to be an ideal worker and ease her double burden. Thus, women are feeling the squeeze or imbalance. In response to this sense of imbalance, many

women, and particularly mothers, seek strategies to balance their work and family lives (Becker and Moen 1999; Spain and Bianchi 1996).

Given the overload that working mothers experience, the still prevalent gendered notions of acceptable women's and men's roles, the structural lag manifest in the organization of work and home, and the general tendency of employers, husbands, and policy to pin the problem of the double burden on women alone, it is not surprising that some mothers decide to leave market work altogether and fully concentrate on the domestic sphere.

However, it is important to keep in mind the price mothers pay for periods of nonemployment. Several studies document a wage penalty for motherhood (Budig and England 2001; Felmler 1995; Lundberg and Rose 2002; Waldfogel 1997b; Waldfogel 1998a; Waldfogel 1998b), yet there seems to be no such penalty for men, instead having children seems to increase their wages (Lundberg and Rose 2002). Working part-time, a common work-family balance strategy used by many mothers, reduces the penalty for one child from 6 percent to 4 percent, but a penalty remains (Waldfogel 1997c). Lifetime earnings are lower for mothers because of periods of nonemployment (Joshi 1990), and in turn their private pensions are lower. Lower earnings may affect married mothers bargaining power with their husband and contribute to dependence and inequality within the home (Crittenden 2001; England and Kilbourne 1990; Ferree 1990); and in the case of divorce, low-earning mothers and those with less work experience are more apt to fall into poverty. Women's economic marginalization has negative ramifications for children too, since mothers tend to spend more of their earnings on children and children of divorce often spend

periods of time in poverty (Cherlin 1992; Furstenberg and Cherlin 1991; McLanahan and Sandefur 1994). Since most women are mothers, and most mothers do the bulk of child rearing, the price of motherhood contributes to gender inequality (Budig and England 2001).

This dissertation focuses on married mothers with children under age 15 and examines their labor force transitions. By looking at the determinants of married mothers' labor force exits and entrances, I attempt to discern whether theories of neoclassical economics, stage in the life course, and the gender perspective explain married mother's labor force transitions. Using the 1996 panel of the Survey of Income and Program Participation (SIPP) longitudinal data, discrete-time event history models are run exploring labor force transitions.

The objective of this dissertation is to add to the current body of research on the decision making process surrounding mother's employment in married couple families. By including information on both spouses, I pose questions about gender equality in the home, and inform policy concerned about the ability of parents to balance work and family responsibilities and child well-being. Using longitudinal data, I study full-time homemaker mother families, specifically looking at labor force exits into and from this family type. This is an important family type to study because of the link between parental employment and child and family well-being, and because of the implications of periods of nonemployment for gender equality in the work place as well as in the home. The dissertation addresses several research questions:

- 1) What are the determinants of married mothers' labor force exits or entrances?
- 2) What is the role of the wife's relative earnings on a married mother's labor force participation?
- 3) What is the role of the age at first birth on a married mother's labor force participation?
- 4) How do the different theoretical streams interpret the findings?
- 5) Does the reason for nonemployment influence the determinants of married mothers' labor force participation?

This research goes beyond prior studies of the relationship between gender and a mother's work and family decision-making in important ways. First, the bulk of the literature on mother's labor force exits concentrates on labor force exits either around the time of the first birth or a subsequent birth. The value of time in the home greatly increases with the first birth, as caring for a young child is labor intensive. In addition, the greatest changes in various activities have been demonstrated with entry into the parenthood role rather than with additions to an established family (Desai and Waite 1991; Elder and Rockwell 1976; Hofferth and Moore 1979; Hogan 1981; Sorensen 1983). While it is likely that the birth of a child is a turning point for many women, and motivates some to exit the labor force, not all mothers exit at this time and for this reason. Little research has been conducted on the labor force transitions into and out of full-time motherhood as a whole regardless of the age of the youngest child. This research will take a broader look at the timing of women's labor force exits than in previous research.

Second, this study is unique because the rich SIPP data set allows me to include several new measures to explain labor force transitions and explore the interpretations of results relying on several theories, broadening the discussion and understanding of the determinants of married mother's labor force participation. I draw on neoclassical economic theory, the life course perspective, and the gender perspective simultaneously.

Additionally, the SIPP panel is a representative sample of the entire population, unlike the NLSY which as Rosenfeld (1996, page 204) points out "over represents young mothers and understates the degree of labor force attachment as women have postponed child bearing and increased their work experience before having the first child." This dissertation allows the inclusion of a representative sample of women who began child bearing at young, on-time, and older ages and provides insight into how these different life course trajectories based on age at first birth influence labor force attachment. One drawback, however, is that by using the SIPP, this research only tracks labor force transitions over a four-year period.

Third, this research concentrates on married mothers, rather than all mothers, because the intent is to examine family dynamics surrounding gender specific specialization of family roles. I study married couples because I am interested in issues of gender equality in the home and couple-level responses to work and family balance. However, as more fathers take on parental and home responsibilities, they too feel the squeeze and imbalance associated with work and care-giving (Coltrane 2000). It is important to examine the labor force behavior of married mothers, because work and family balance policy is often conceptualized around the

challenges facing these women, yet these same challenges exist for fathers with significant care-giving responsibility and for single mothers who have the dual role of primary economic provider and primary care-giver.

Finally, this dissertation takes a modest first step toward a better definition of full-time mothers than previous research in that I compare mothers who exit the labor force for any reason with those who exit specifically to care for family and children. I examine a rich longitudinal data set, the Survey of Income and Program Participation (SIPP), to track changes in labor force status and income, concurrently with changes in family composition and job characteristics. Estimates of the number and characteristics of full-time mothers have relied on cross-sectional data only and have not been able to capture the dynamic nature of work and family decisions.

In sum, this research contributes to the debate on the relationship between gender equality and the child care and work decision-making processes. The results have policy implications for child well-being, family well-being, and gender equality in the work place and the home.

## Chapter 2: Literature Review

Between 1970 and the late 1990s there was a steady uptick in the labor force participation rate of mothers with infants. Then for the first time in decades, we witnessed a slight, but statistically significant, decline in the labor force participation rate of mothers with infants. Simultaneously, recent research documents a stalling out of women's market equality<sup>1</sup> with men, despite women's impressive gains in other work-related measures including education and earnings, maternity leave legislation, and job continuity. One might have thought that by the year 2000 more married couples would have found egalitarian ways to balance the demands of work and family, given the advances made due to the feminist movement, the steady move toward more father involvement in the family, and family friendly changes instituted in the work place. But that does not appear to be the case. Rather, it appears that something very strong continues to push a sizable proportion of mothers to opt for nonemployment. Perhaps it is driven by economics, or maybe it is cultural, or perhaps the answer lies in unbending gender roles. We need to understand which women exit the labor force for full-time mothering because of workforce issues—the labor market is losing some of the best and brightest workers—but also because of continued inequality in the workplace and the home. This dissertation takes a different approach to the old question of women's labor force participation by flipping the way we look at this phenomenon. Rather than focusing on women's

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<sup>1</sup> Cotter, Hermsen, and Vanneman (2004) define market equality by three dimensions (labor force participation, occupational segregation, and earnings) and track changes in these from 1950 to 2000.

labor force participation and who is working, I focus instead on why women leave the labor force.

### Organization of the chapter

This chapter begins with an examination of the trends in the labor force participation of mothers and then discusses mother's labor force patterns around the time of childbirth. Next, it reviews several different types of married couple families, paying specific attention to issues of gender equality and power. A discussion of other cultural currents and how they might influence mothers' labor force participation ensues. Finally, the chapter reviews the previous literature on the determinants of labor force participation.

### Trends in the labor force participation of mothers

Historically, formerly married mothers had higher labor force participation rates than did married mothers (Casper and Bianchi 2002). This is not surprising given that these mothers did not have a husband's earnings to rely on and thus were compelled to combine work with child rearing. Likewise, minority and low-income married mothers have always had substantial levels of paid work. Since the 1960s however, we have seen a dramatic increase in the proportion of married mothers who are working for pay, particularly among mothers of preschool-age children. In 1960, only 19 percent of married mothers with children under 6 were in the labor force, by 2001 that proportion had increased to 63 percent (US Census Bureau 2002). Clearly,

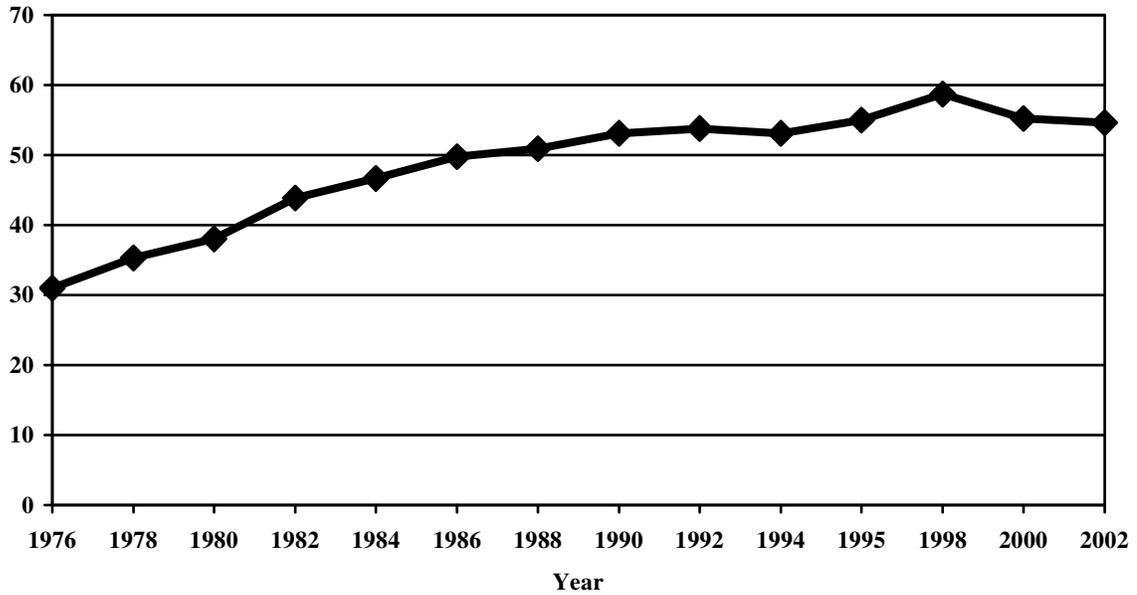
more married women today simultaneously combine work outside the home and raising young children than in the past (Cohen and Bianchi 1999).

Women have increased their educational attainment over the past four decades, and many women spend several years in the labor force prior to childbearing and then remain attached to the labor force after they begin child bearing. This new pattern of women's work and family building differs markedly from the path that women of previous generations took. In mid-20<sup>th</sup> century America, women would marry early, have children quickly after marriage, and remain outside the labor force to raise their children (Goldin 1990). In part, this was possible because of the "family wage" that white, married men typically received. The rise in women's labor force participation in the 1950s and 1960s was largely due to an increase in older women returning to the labor force after their children were grown (Goldin 1990). More recently, the stagnant wage rates of men, especially men with lower levels of education, coupled with rising housing costs have made it a necessity for families to have two paychecks to make ends meet, and to afford the level of consumption that they desire (Levy 1987; Levy 1998).

The historical trend of increasing labor force participation among mothers with infants seems to have declined and leveled off. Figure 2.1 shows the labor force participation rate of mothers with infants less than one year of age from 1976 to 2002. For the first time since 1976, the decade's long trend of increasing labor force participation among mothers with infants has fallen from an all-time high of 59 percent in 1998 to 55 percent in 2000 and remained at that same level in 2002 (Bachu

and O'Connell 2000; Downs 2003). The decline is apparent among older, White, and married mothers, as well as mothers with some college education.

**Figure 2.1: Labor Force Participation Among Women With Infants, 1976 to 2002**



Source: Downs, B. 2003. Fertility of American Women, 2002. Current Population Reports. U.S. Census Bureau.

New data from the CPS show a rise in the percent of stay-at-home mothers – defined as married mothers with children under 15 who are out of the labor force for at least one year to care for home and family—from 20 percent in 1994 to 22 percent in 2000, representing an increase of 14 percent (Fields 2003).<sup>2</sup> It is against this backdrop of an increase in married mothers who are shedding their worker roles for

<sup>2</sup> This percentage may seem low compared with the percentage of married mothers with children who are not in the labor force, but that is expected since it is a more strict definition of stay-at-home motherhood (the mother must be married with a child under 15 and have been out of the labor force for the entire year, and have a husband who was in the labor force for that same entire year).

full-time motherhood that I aim to better understand the labor force transition dynamics of this group. Little is known about full-time mothers and what processes motivate them to leave the labor force. Do women who exit the labor force to be full-time mothers share the same characteristics as women who exit for other reasons?

*Mother's labor force patterns surrounding childbirth*

Women's labor force activity surrounding the birth of a child is well researched. While the 1960s represented a time when the vast majority of women exited the labor force upon the birth of the first child, today the majority of women remain employed, taking only short maternity leaves (Smith et al. 2001). There is consensus among studies that as the birth approaches, women increasingly reduce the number of hours worked per week (Cramer 1979; Desai and Waite 1991; Klerman and Leibowitz 1999; Smith, Downs, and O'Connell 2001; Waite, Haggstrom, and Kanouse 1985). A woman's likelihood of leaving increases as the due date approaches, with fewer women leaving in the first trimester and the majority leaving in the last trimester (Klerman and Leibowitz 1999; Smith, Downs, and O'Connell 2001). In fact, 82 percent of employed women now work into the third trimester (Smith, Downs, and O'Connell 2001), with many (more than half) working the month they deliver. The research also shows that women who work into their third trimester return to their job quicker (most mothers are back to work by 6 months postpartum) (Klerman and Leibowitz 1999; Smith, Downs, and O'Connell 2001) and that those who leave early on in the pregnancy, do not return to work within the first year (Klerman and Leibowitz 1999; Smith, Downs, and O'Connell 2001).

Klerman and Leibowitz (1999) find that women self select into workers and nonworkers at the birth of their first child. Those mothers who work after a first birth are more likely to work after a second or third birth as well, while mothers who leave the labor force after a first birth are more likely to remain out of the labor force for a longer period of time and not work after subsequent births. Similarly, women who work into their pregnancy show stronger long-term ties to the labor force (Hofferth 1996). (Mott and Shapiro 1983) find that work during pregnancy is a good predictor of labor force participation 5 to 10 years after the first birth, and (Even 1987) shows that the probability of women reentering to the labor force after the birth of a child falls as the length of the interruption rises.

However, recent research shows that women's work patterns are more varied and dynamic than previously thought. Research on women's work and family patterns often portray women as falling into two distinct and exclusive groups depending on their attachment to the labor force or family (Blau 1976; Mott and Shapiro 1982; Scanzoni 1979; Schwartz 1989; Waite 1981). Vandenhuevel (1997) debunks the notion that women can be sorted into two types—those for whom career is primary and those for whom family is primary—by showing that women follow diverse life paths after the birth of their first child. Over a ten-year period, the dichotomous distinction loses traction falling from 81 percent of white women in a stable role sequence (either continuously in the labor force or continuously out of the labor force) at two years after the first birth to only 24 percent in a stable role sequence at 10 years after the first birth (Vandenhueval 1997). By five years after the first birth, only half of the white mothers have remained either continuously

employed or continuously not employed, while the other half have experienced diverse labor force patterns. Similar results are found for Black women, although Black women have a slightly higher rate of stable role sequence due to their higher rates of continuous labor force participation. Moen (1985) also finds numerous labor force transitions among women over a five-year period using data from the late 1970s.

Work interruptions are an important part of women's overall labor force patterns, but can have potentially negative repercussions for occupational attainment and overall earnings (Mincer and Polachek 1974; Polachek 1981; Polachek 1987). Polachek (1981), relying on human capital theory, argues that discontinuities in employment diminish skills and reduce overall work experience, which leads the intermittent worker to be viewed as less well-trained, experienced, and committed. Thus, finding a job after a labor force break that has equivalent pay, skills, and rewards with the job prior to the labor force break may be difficult, especially if a mother is searching for work with reduced hours. Mothers may therefore have to settle for a less rewarding job after a labor force break. Felmler (1995) finds that even a single labor force break has immediate and adverse effects on women's employment prospects, including lower wages and job status, and higher rates of downward mobility. She also finds that married women are more likely to have a job change with an interruption, because the family can rely on the father's paycheck in the interim; and that having a preschool age child increases the likelihood of a job change to a lower paying job, suggesting that mothers of young children shift to jobs that are less demanding and have reduced hours. Downs and Smith (2003) also find

that mothers switch jobs in the year after the birth of their first child to accommodate their desire for part-time work, presumably because their pre-birth job did not offer a part-time alternative, and this job switching for reduced hours is often correlated with reduced pay and skill level. Therefore, evidence exists that some mothers trade off pay and prestige for more flexibility and time with children.

### Part-time work

The current organization of work is based on the male breadwinner/ wife homemaker template, which requires the worker to fully concentrate on work and career (Moen and Yu 2000; Williams 2000). Centered on the premise that employees will work full time hours and will work overtime when necessary, job promotions and raises are granted based on a model that uses the “ideal” worker as the norm against which all other employees are compared. Ideal workers appear to have no other personal or family obligations, work overtime when necessary, and prioritize their job before their family. Invisible from this picture of the ideal worker is the backstage support provided by the homemaker wife, which enables the ideal male worker to “have it all,” i.e., pursue a career unfettered by family care obligations yet have a wife to provide nurturance, cooked meals, laundered clothes, and well-behaved and cared for children. Within this rigid framework, there is no place for rewarding part-time work with opportunities for advancement and prestige.

Part-time jobs, which are predominantly held by women, are often equated with low-status and low-pay (Blank 1990; Waldfogel 1997a; Williams 2000). In addition, part-time jobs are usually limited in terms of benefits (health insurance,

pension benefits), are often of uncertain duration, and lack protections that full-time jobs enjoy (Kalleberg, Reskin, and Hudson 2000; Tilly 1996; Williams 2000). Part-time jobs are frequently regarded as “mommy track” positions, with little or no chance for advancement, prestige, or authority and tend to offer less rewarding and challenging work (Blair-Loy 2003; Blank 1990; Blossfeld and Hakim 1997; Drobnic and Wittig 1997).

Yet, not all part-time jobs are “bad jobs.” Blank (1990) finds that women who switched into part-time work voluntarily were paid more per hour than comparable women who worked full-time, controlling for differences among women and factors that affect their decisions to work part-time. Research by Tilly (1996) delineates two different types of part-time jobs. The bad part-time jobs are those in the secondary job market and are entry-level, typically dead-end jobs that demand little skill, training, and responsibility, offer little opportunity for advancement, are poorly paid and offer no benefits (Tilly 1996). Understandably, these jobs have high rates of turnover. On the other hand, the good part-time jobs, are positions in the primary labor market, tend to be well-paid, offer pro-rated benefits, and demand skill and training. As such, Tilly (1996) calls these jobs “retention” part-time jobs because they are used to keep valued employees on the job, and although the part-timer may not have supervisory responsibility or get promoted while in this retention state, they retain their position on the career ladder. These retention part-timers tend to be women who have care-giving responsibilities and prefer to work less than full-time hours, and thus turnover tends to be low in these positions. Perhaps both the

employer and the employee believe that when the time-intensive demands of caring for young children pass, the employee will return to full-time hours.

However, even for retention part-timers, employers and coworkers can be hostile to part-timers and consider them to be less committed to their work. Some professional women who do attempt to work part-time end up leaving their position because they do not like the loss of authority, the lack of rewarding, interesting work, or the hostility felt from coworkers (Crittenden 2001; Wharton and Blair-Loy 2002; Wolf 2001). Blair-Loy (2003) explains that the stigma associated with part-time work leads many professionals, who otherwise would like to cut back their work-week, not to attempt to negotiate reduced workloads. Several studies have documented that parents would like to work fewer hours (Clarkberg and Moen 2001; Galinsky and Swanberg 2000; Gerson and Jacobs 2001; Jacobs and Gerson 1998), and that many feel that they cannot, partly due to fears about the negative effect on their careers (Wharton and Blair-Loy 2002).

One common reason portrayed anecdotally and in the qualitative research for professional women to quit their jobs is that there is no part-time option available—essentially their choice consists of full-time or no time (Crittenden 2001). Some evidence exists that mothers switch jobs in the year after the birth of their first child to accommodate their desire for part-time work (Downs and Smith 2003), presumably because their pre-birth job did not offer a part-time alternative, and this job switching for reduced hours is often correlated with reduced pay and skill level. Others state that they were not prepared for the conflicting demands of work and family, and expected their husbands to play a larger role in the care of children and increased

housework associated with children (Wolf 2001). Others did not realize how time-consuming and all encompassing mothering would be, and how hard it would be to leave their child for long periods of time.

Williams (2000) argues that women looking to balance work and family have two alternatives, neither of which constitutes a full range of choice or equality.

Women can 1) perform as ideal male workers without the backstage support that facilitates full- and over-time employment, or 2) take dead-end “mommy track” jobs or low-paying, low-skilled “women’s work”. Williams (2000) contends that these two “choices” are based on a male ideal worker model, and as such, neither option offers equality. Qualitative research reveals that women often say it is their choice to leave their job, even though their first choice would have been to have the same job, but just with fewer hours, but that was not an option they could choose. In many cases, “choice” hides social constraints and discrimination (Crittenden 2001; Williams 2000). A third alternative that more and more professional women are exercising is to not marry, remain childless, or delay both as long as possible (Moen and Yu 2000).

### *Types of married couples*

#### **“Traditional” couples—Specialization within marriage**

Traditional specialization within marriage occurs when the husband concentrates on market work and the wife concentrates on home production (Becker 1981). In the 1960s, this was the norm for families with children as only 19 percent of wives with children under 6 were employed outside the home, although low-

income mothers and mothers of color often were employed (Casper and Bianchi 2002). The typical pattern of women's employment for those born in the 1930s (thus they married in the 1950s) was employment prior to marriage, but once married a labor force exit would quickly ensue (Goldin 1990). Over time the typical pattern of women's employment has changed such that today, the typical pattern of women's employment is employment, take a short leave of absence for maternity leave, and return to employment. At the turn of the 21<sup>st</sup> century, traditional specialization within marriage was more the exception than the rule. By 2001, 64 percent of married mothers with children under 6 were employed, thus only 36 percent of married couple families with children under 6 consisted of a male breadwinner and a female homemaker (Casper and Bianchi 2002).

Yet, modified forms of specialization within marriage are clearly visible in our society today, especially within married couples with young children. Married mothers with young children work on average 20 hours per week, fewer hours than all married women (25 hours) and all women (27 hours) (Casper and Bianchi 2002, Table 10.1, page 290). Scaling back hours of employment is a strategy many married mothers of young children rely upon to enable them to balance their work and family responsibilities and maintain a foot in both spheres (Spain and Bianchi 1996). A very small minority of married-couple families with children (roughly 2 percent) flip the gender roles upside down and have an employed mother with a full-time father (Fields 2003; Smith and Fields 2004), a reversed form of specialization within marriage. Very few fathers work part-time hours while their wife works full-

time hours, although the percentage of fathers providing child care for their children while the mother is employed has risen since the 1980s (Smith 2002).

Raley, Mattingly, and Bianchi (2006) document the change in the distribution of couples by their breadwinner status from 1970 to 2001. In 2001, 70 percent of couples were dual-earners, up from 41 percent in 1970 (this includes couples without children). Following Nock's (2001) categorization of couples as mutually economic dependent spouses (MEDS), Raley et al. (2006) find that couples where the husband was the primary provider decreased from 87 percent to 64 percent (includes husband as sole earner and primary provider among dual-earners), primarily due to a decrease in husband as sole provider families. The percent of couples with a wife as the primary provider increased from 4 percent to 12 percent over the same time period. Taken altogether, the majority of married couple families with children exhibit either traditional specialization or a modified form of specialization, enabling the husband to focus more on market work and career advancement and the wife to focus more on providing for the well-being of the family and home.

### **Egalitarian marriages**

Gornick and Meyers (2003) view egalitarian marriages as those where men and women share domestic and provider roles. Others find that what sets egalitarian marriages apart from nonegalitarian marriages is the determination to subvert traditionally gendered divisions of labor and power (Blaisur e and Allen 1995; Risman and Johnson-Sumerford 1998), efforts to create more companionate, collaborative marriages (Schwartz 1994), and the valuing of women's paid work as a necessary

condition to achieving a more equitable relationship (Risman and Johnson-Sumerford 1998). Several studies show that when couples are more equal in their earnings, regardless of their economic level, they exhibit more equal power relationships (Bittman, England, Sayer, Folbre, and Matheson 2003; Brines 1994; Coltrane 1996; Sexton and Perlman 1989). It is possible that couples that have equal education levels also regard one another as equals and demonstrate more balanced marital power. The rise of women's labor force participation has been used as a prime indicator of women's status (Cotter, Hermsen, and Vanneman 2004) and dual-earner couples are often considered more egalitarian than husband sole earner couples. More recently, the wife's relative earnings to her husband have become a marker of marital power and couples with high earning wives have come to embody egalitarianism.

### *Delayed childbearing*

Gains in women's market equality to men are in part attributable to an increase in the age at first birth. Since the 1960s, we have seen a shift in the age at first birth toward older ages, notably among women with college degrees (Rindfuss, Morgan, and Offutt 1996). The mean age at first birth has steadily increased from 21.4 in 1970 to 24.9 in 2000, an increase of 3.5 years (Martin, Hamilton, Sutton, Ventura, Menacker, and Munson 2005). Simultaneously, the proportion of women graduating from college has steadily increased from 12 percent in 1970 to more than half in 2004, such that women now are more likely to earn a college degree than men of comparable ages (Stoops 2004).

The birth of a first child is an important life-changing event, and the timing of the onset of family building certainly influences educational attainment, occupational opportunities, marriage prospects and overall earnings (Rindfuss and St. John 1983). Early age at first birth is associated with disruptions in the young mother's schooling, poverty after the birth of her first child, and dependence on public assistance (Geronimus and Korenman 1992; Hofferth and Moore 1979), setting a pathway of decreased market value and job mobility. On the other hand, late child bearers tend to have high market value because they have been on a life course pathway that encourages higher education and continuous employment (Martin 2000). They are likely to be well established professionally and more secure economically (Hofferth 1984).

Bloom (1986) finds that women aged 30-39 who wait until at least age 27 to have their first birth, earn 36 percent more than those who have their first child before age 22, and 18 percent more than those who first give birth at ages 22-26. When controlling for education and years of work experience and other control variables, those who have their first birth after age 27 still earn roughly 10 percent more than those who give birth prior to age 22. Late child bearers and childless women have higher education levels and more work experience, both of which account for most of the hourly wage differential.

The timing of a woman's first birth influences the level of education she attains (Hofferth, Reid, and Mott 2001), and in turn the career paths that are available to her (Coombs and Freedman 1970; Rindfuss and St. John 1983). According to Bloom's (1986) research using the 1985 CPS, childless women are more likely than

women with children to hold managerial positions; childless women and late childbearers are more likely to hold professional positions; and early childbearers are heavily represented in service and blue collar professions. Clearly a woman's early life events are setting the stage for later life outcomes (such as earnings) (Rindfuss and St. John 1983) and are likely contributing to her worldview and shaping her meaning of work and family.

Research suggests that women who delay childbearing until a later age appear to experience the transition to motherhood differently than those who begin childbearing at early ages (Coltrane 1990; Coltrane and Ishii-Kuntz 1992). Although career interruptions tend to have a negative effect on wage attainment, and thus would deter labor force exits, (Taniguchi 1999) argues that the disruptive effect could vary by the timing of the interruption.

### *Specialization in marriage—Negative consequences for women and children*

Important tradeoffs are inherent in specialization in marriage. Although specialization may bring higher total income to some families, it also creates inequities within families (Blau, Ferber, and Winkler 1998; Gornick and Meyers 2003). Full-time homemakers lack bargaining power within the family, are less able to leave the family if domestic abuse or serious problems arise, and often fall into poverty in the case of divorce (Budig and England 2001; Crittenden 2001; Ferree 1990; Gornick and Meyers 2003). For women, long-term negative economic repercussions of specialization in marriage (even modified specialization) are widespread. A significant wage penalty is associated with motherhood (Budig and

England 2001; Lundberg and Rose 2002; Waldfogel 1997b; Waldfogel 1998a; Waldfogel 1998b). Men do not suffer the same penalty—their wages have been found to increase after the birth of a child (Lundberg and Rose 2002). Women who step out of the labor market to raise children have lower lifetime earnings (Joshi 1990), which in turn lowers their pension income. Women experience difficulty reentering the labor force at a level similar to their pre-full-time motherhood spell due to the loss of skills from not working.

Although there has been a narrowing of the gender gap in pay between the hourly earning of women and men in recent decades, women still have lower earnings than men. Despite gains in educational attainment and the increase in continuous employment among women over the life cycle, one important factor explaining the persistence of the gender wage gap is that women tend to have less continuous labor market experience than men with comparable characteristics, such as education (Goldin 1990; O'Neil and Polachek 1993; Sorensen 1991).

These findings have potentially important implications for gender equality in the labor market and in the home. Since most women are mothers and do the bulk of child rearing, any “price” of motherhood not shared equally by fathers has implications in terms of gender equality (Budig and England 2001). In our society, earnings are an important source of power and influence. On the family level, for married women, lower earnings seem to translate into marginalization and dependence.

### Marital power

Breadwinning has traditionally granted privileges to men within the family. Historically, the marriage contract defined husbands as breadwinners and wives as homemakers. An “exchange of resources” then ensues, with men trading their income for domestic and caring labor provided by wives. Because earning money is more highly valued than performing household labor, the act of earning money has translated into the right to control it, and how it is spent, and this control has extended to authority over other household decisions (Tichenor 2005). Other advantages have been conferred to the traditional breadwinner, such as more leisure time and freedom from domestic responsibilities. In essence, a man’s income has guaranteed him greater power and privilege within marriage (Bernard 1981; Ferree 1990).

The equation of money with power has led to the argument that if women are to increase their power vis-à-vis their husbands and in society, they need to pursue higher education and gain independent wages on equal footing with men, so that they can improve their sense of personal competence and increase their autonomy and power in their marital relationship. However, evidence suggests that the movement of large numbers of women into the labor force has not translated into a substantial shift in the balance of marital power in women’s favor—men have for the most part preserved their power and privilege in the home. Some research on marital power suggests that women’s earnings have increased their control over money in the marital relationship (Blumstein and Schwartz 1991; Pahl 1989; Whyte 1990) and that some men have increased their domestic labor in response to their wives’ employment (Berk 1985; Coltrane 2000; Presser 1994). But the bulk of the literature

on marital power suggests that women's employment has not considerably altered the balance of power in marriage, as men still exercise greater decision-making control, and despite employment, women continue to perform the lion's share of the household work and child care (Berk 1985; Bianchi, Milkie, Sayer, and Robinson 2000; Bittman et al. 2003; Blumberg 1984; Blumstein and Schwartz 1991; Brines 1994; Greenstein 2000; Hartmann 1981; Hochschild and Machung 1989; Pleck 1985; Zelizer 1989). The balance of power appears to favor the husband even in marital relationships where the wife outearns her husband (Atkinson and Boles 1984; Bittman et al. 2003; Blair-Loy 2003; Brines 1994; Greenstein 2000; Hochschild and Machung 1989; McRae 1986; Tichenor 1999; Tichenor 2005; Zipp, Prohaska, and Bemiller 2004).

Why have higher earnings on the part of women not translated into greater marital power? (Blumberg and Coleman 1989) argue that men's and women's money have different meanings attached to them, and gendered practices and ideology discount and diminish the value of a wife's earnings in relation to her husband. Tichenor (1999, 2005) argues that gender ideology and expectations—specifically that men should be breadwinners and women should be homemakers—shape the marital interactions in ways that weaken the cultural link between money and power for women. For example, in a sample of 30 couples (in 22 the wife outearns the husband), couples with breadwinning wives maintain and reproduce men's dominance by redefining the provider role, minimizing their income or status differences, and having the wife defer to the husband in decision-making.

### Doing gender

That men retain privileges, even when women are the major earners in their families, implies that gender plays a major role in shaping marital power. Previous literature suggests that gender display, the enactment of gender appropriate behavior in every day interactions, is an important component of marital power. According to the gender perspective, gender is socially constructed through a system of boundaries that define what is appropriate for each gender—self-concepts, beliefs, and expectations for behavior regulate symbolic displays of masculinity and femininity and behavior (Potuchek 1992; Risman and Schwartz 1989; Thompson 1993; Zvonkovic, Greaves, Schmiege, and Hall 1996). Men are typically responsible for breadwinning and derive a self-concept of successful male achievement when they are able to provide adequately for their families. Women are typically responsible for housework and family care and also derive a self-concept as a successful female when the house is clean, the children are well-cared for, and the dishes are done.

Issues of work, paid and unpaid, are fundamental to the gender perspective model. The creation of gender is the same as the creation of a division of labor between the sexes, and the production of gender relations is a major part of what families create in doing housework (Berk 1985; Fenstermaker, West, and Zimmerman 1991; Hartmann 1981). Housework produces home-based commodities but also serves to reproduce gender in that the division of labor is a key marker of what it means to be a woman as distinct from a man (Berk 1985; Fenstermaker, West, and Zimmerman 1991; Hartmann 1981). Women's doing of housework can be viewed as a symbol of love and a symbol of gender (Thorne 1982). Yet, the gender perspective

suggests that the creation of gender is a process of negotiation and renegotiation throughout marriage, and this process can be active and contentious (Potuchek 1992). The renegotiation of gender in marriage as a contentious process is evident in the married-couples studied by Hochchild (1989) and Zvonkovic and her colleagues (1996).

Marriage provides a setting for the enactment of gender because the division of labor and doing housework or not doing it facilitates gender display. Women do gender when they engage in housework, and men do gender when they do not. Culturally, men's primary work is to provide economically for the family; thus if the wife earns more than her husband, the logic of gender display is that the couple will compensate by adopting gender-traditional behaviors elsewhere in the marriage (Brines 1994).

While one would expect that women who outearn their husbands to be able to negotiate less housework, Brines (1994) and Greenstein (2000) both find that women who outearn their husbands also engage in more housework than their husbands, leading to what seems to be diminished marital power. Brines (1994) found that husbands who are financially dependent on their wives due to prolonged joblessness do less housework as their dependency increases, and this finding is particularly notable among married men in low-income households. The masculinity of these low earning men may already be threatened due to their failed economic provisioning. Brines (1994) argues that gender norms are violated when wives outearn their husbands and couples compensate by adopting gender-traditional behaviors elsewhere in the marriage. Bittman et al. (2003) offer the term "gender deviance neutralization"

to explain the compensatory behavior of a high earning wife relative to her husband, when she takes on more than her share of housework to neutralize the failure of her husband to provide a majority of the couple's income. This notion is supported by Hoshschild's (1989) study—she also found husbands who earned less than their wives not sharing in housework.

Blair-Loy (2003) and Hochchild (1989) find a similar reluctance among husbands in middle- and high-income households to break out of the culturally prescribed male role of economic provider, and take on culturally prescribed female family oriented responsibilities, even when the wife had the higher paying job and the couple was contemplating a job exit for the wife. Blair-Loy (2003) reveals in her qualitative study of 81 women executives in finance-related occupations that even when the wife outearns her husband, she quits her job if family emergencies arise, presumably because her husband would not. It is possible that high earning wives may neutralize their gender deviance of outearning their husbands by exiting the labor force altogether.

However, these husbands of the executive women in Blair-Loy's (2003) study were high earners relative to other men, giving these high earning wives the choice of breadwinning or homemaking, without compromising their high standard of living. Research shows that high earning men are more likely to marry high earning women (Burtless 1996) and that since the late 1960s the correlation between husbands' and wives' earnings has grown, although it is still low compared to spouses' correlation on education (Cancian and Reed 1999; Mare 1991). "Positive assortative mating" is a common practice, that is, men and women tend to sort into marriage on the basis of

similar age, religion, race, class, physical characteristics, and education (Becker 1981; Lichter 1990; Oppenheimer 1988; Sweet and Bumpass 1987) and increasingly on earnings (Cancian and Reed 1999; South 1991).

In 1993, 20 percent of wives in dual-earner couples had annual earnings that exceeded that of their husbands, but as husbands' annual earnings increased, wives' annual earnings were less likely to outpace their husbands' (Winkler 1998). When the husbands' income was in the first quintile, 55 percent of wives outearned their husbands. However, only 14 percent and 2 percent of wives outearned their husbands when the husbands' income was in the third and fifth quintiles, respectively. This is important because couples where both spouses have high earnings have a different set of options available to them (hire domestic help, rely on one income) than couples where both spouses are low earners, and the wives' monetary contribution is vital to family well-being.

A wife's higher earnings relative to her husband may augment her marital power and encourage more gender equality in the home, but it also violates gender norms and wives may compensate by exiting the labor force or reducing their work hours to realign themselves on equal or lower footing in relation to their husband, actively creating gender. If money equals power in our society, and it is high earning wives—the very women who are poised to break glass ceilings—who exit the labor force, then what does this say about gender equality in the market place and in the home? If women actively create gender within their marriage by exiting the labor force even when they outearn their husband, what does this imply about the strength

of appropriate gender display. Could this be part of the stalling out of women's market equality with men?

*Stalled market equality*

Several researchers of women's employment and gender relations have noted that a cultural revolution has not occurred simultaneously with the women's economic revolution (Blair-Loy 2003; Crittenden 2001; Gornick and Meyers 2003; Hays 1996; Hochchild and Machung 1989; Presser 1994; Sayer, Cohen, and Casper 2004; Williams 2000) Hochchild (1989) calls it a "stalled revolution" and argues that we need a new ideological revolution encouraging men to share in the housework, and encouraging employers to want to provide child care, job sharing, and parental leave so that women too can succeed in the market place and true gender equality can be achieved. Hays (1996) contends that this solution would only shift the focus from intensive mothering to intensive parenting, and would be only a partial answer to the conflict between work and family, leaving both parents burdened, especially men who currently focus primarily on market work. Several researchers (Crittenden 2001; Williams 2000) call for better and real options for those with care-giving responsibilities, including part-time hours that offer real avenues for advancement and promotions, since the current system marginalizes part-time workers and those who cannot perform as the ideal worker. Blair-Loy (2003), on the other hand, believes that the change must come from within the system, initiated by women holding top managerial positions who can advocate effectively for change. Sayer et al. (2004) explain that in order for women to gain market equality with men

conditions must change, such as less value being placed on maternal time with children, fewer women being solely charged with raising children, men helping more with the second shift, or policies facilitating care-giving and market work. Despite the lively debate on the best solution to reduce the second shift for women and achieve gender equality, feminists agree that socially constructed, unbending gender roles are at the root of why market inequality persists.

### *Intensive mothering*

What is at the root of unbending gender roles? Some point to the high value of and emphasis placed on maternal time with children, or the current context of appropriate parenting called “intensive mothering.”

Several researchers argue that the cultural perspective of what it means to be a “good” mother has changed over time, such that the contemporary mother is expected to pour endless time, energy, and money into the care and well-being of her children (Arendell 1991; Blair-Loy 2003; Crittenden 2001; Hays 1996; Williams 2000). In the past, mothers surely were charged with child care, but also were saddled with time-intensive housework, and often the care of children merely consisted of making sure daily needs were met (Hays 1996). Child rearing values reflected a socially constructed cultural model for appropriate child care in tune with the social beliefs and customs of that time. Over time a shift from producing quantity to producing quality children has occurred, and the socially constructed appropriate child rearing values now require a child-centered focus and necessitate time-intensive, emotionally absorbing, labor intensive care from the mother, as the mother’s love and nurturance

is considered crucial to child well-being (Hays 1996). Child rearing today now includes “floor time,” face to face interactions, chauffeur time shuttling children from enrichment activity (i.e., soccer) to enrichment activity (i.e., music lessons), all centered on the needs and desires of one’s child (Lareau 2002; Lareau 2003; Williams 2000).

Presently, the shift to producing quality children is evident and more pronounced among those with higher education levels. As education rises, women spend more time with their children (Bianchi 2000). Hays (1996) finds that professional women use more intensive time-consuming child rearing techniques than less educated women. Lareau (2003) finds a similar parenting style among middle class families. They tend to talk and read more to their children, and give their children choices, using negotiation rather than demanding obedience to firm rules, which is a more time-consuming child rearing practice. They also set a high premium on developing independence and critical thinking (Crittenden 2001). However, Hays (1996) also finds at all socio economic levels, that intensive mothering is the perceived norm guiding appropriate child rearing, and that it is understood to require a huge expenditure of time and effort.

Blair-Loy (2003) describes intensive mothering in terms of a cultural schema—the family devotion schema—that assigns primary responsibility for home and family to women. It promises women fulfillment, meaning, creativity, intimacy, and a secure livelihood in caring for husband and children and prescribes a model of motherhood that is intensive, emotionally absorbing, and centered on one’s precious child or children (Blair-Loy 2003; Hays 1996). The family devotion schema

mandates stable marriage with different and complementary life callings for men and women.

The corresponding life calling for men, according to Blair-Loy (2003), can be described by another cultural schema—the work devotion schema—one that is traditionally masculine, and demands that one give an immense time commitment and strong emotional allegiance to one’s firm or career. Work in turn gives an important source of meaning, justification, purpose, and status. Fathers, therefore, are culturally given permission to focus exclusively on their breadwinner capacity and specialize in market production without worrying about the care of the home and children, because their wives will be providing the backstage support for their career and tending to the demands of the family and household.

These two cultural schema’s (schema of work devotion and schema of family devotion) require intense time commitments, are typically defined as a calling or vocation, and give purpose to life (Blair-Loy 2003). Because schemas are constructed by societies over time, they are largely unquestioned and are based on shared cultural models. The demands of the work devotion schema make it virtually impossible for those with significant care-giving responsibilities to reach the peak positions in an organization (Acker 1990; Acker 1992; Moen 1992; Moen and Wethington 1992). Even among lower level workers, finding time to care for family and home and engage in market work for regular full-time hours can prove challenging. For employed mothers, these two schemas collide making work and family conflict a poignant challenge that many women must resolve. Mothers are

expected to “act like a man” in the job market, despite the simultaneous cultural expectation that they be fully involved in the lives of their children.

The same conflicting cultural expectations are not as apparent for employed fathers, but competition between the role of worker and father may become more salient as the small but growing proportion of men who desire to share the nurturing role with their wives attempt to do so (Kaufman and Uhlenberg 2000). Research reveals that younger fathers are beginning to question whether they want to work long hours such that their parental role is effectively diminished to that of a “distant provider” (Casper and Bianchi 2002; Cohen 1993; Grimsley 2000; Jump and Haas 1987; Kaufman and Uhlenberg 2000; Milkie, Bianchi, Mattingly, and Robinson 2002) and that some fathers are acting on that desire. Kaufman and Uhlenberg (2000) find a decrease of 9 hours worked per week outside the home among young fathers who have a more egalitarian perspective. Since 1965, we have seen a notable increase in the time married fathers spend with their children, from an average of 2.8 hours per day to 3.8 hours in 1998 (Bianchi 2000).

The literature on fatherhood provides two competing models of what it means to be a father (Goldscheider and Waite 1991; Hyde, Essex, and Horton 1993). The “good provider” model, based in more traditional viewpoints of gender roles, calls for men to demonstrate their commitment to the family by being responsible workers and bringing home an acceptably high income. Under this scenario, we expect that the division of labor would be more traditional, and mothers would be less inclined to be employed, or if they were employed they would view their job as secondary to their husbands’. On the other hand, the “involved” father model (or “new fatherhood”

model) suggests that a more select group of men are becoming fathers, and they are more dedicated to being involved in the nurturing and rearing of their children. These families tend to hold an egalitarian perspective on parenting and providing, with the husband and wife equally sharing responsibility for providing family income and the care of home and family. Families that believe that both parents are equally responsible for market work and housework will exhibit a more equal division of labor and wives living in these families will be employed.

Despite a move toward more gender equality in the home, these fathers by no means represent the norm. Motherhood is highly predictive of nonemployment and a reduction in time spent in market work, while the association between fatherhood and market work effort is reversed—fathers are more often employed and work longer hours than nonfathers (Kaufman and Uhlenberg 2000; Waite, Haggstrom, and Kanouse 1985).

Even among egalitarian couples, the birth of a child tends to increase the division of labor around gender lines. This may be due to the fact that the labor market tends to economically reward fathers better than mothers, with men receiving higher pay and more promotions to a greater extent than women of similar education levels and types of jobs. Many studies find that labor markets are structured to exclude women from the high paying and high status jobs, and therefore their market labor is deemed less valuable than men's (Berk 1985; Coltrane 1996; England and Farkas 1986; Ferree 1990). Due to this external market force, families may have an incentive to choose fathers to specialize in the market and mothers to specialize in the

home. This has contributed to the view that “good” fathers are successful economic providers.

Up against the conflicting cultural expectations and real time pressures inherent in combining paid employment and motherhood, women seek strategies to balance their work and family responsibilities (Moen and Yu 2000; Spain and Bianchi 1996). One strategy many women have used is to delay marriage and child bearing, and limit the number of children they have (Moen and Yu 2000). Other common strategies mothers use to balance their work and family responsibilities are to decrease their hours spent working to part-time and/or decrease their time spent doing housework. Still other strategies include working in a job rather than pursuing a career (Becker and Moen 1999), curtailing career ambitions or putting them on hold, switching jobs or careers (Downs and Smith 2003), and leaving the labor force altogether.

### *Previous research on mother’s labor force participation*

#### **Work related measures**

##### **Market value**

Market-based human capital, or market value measures that represent job commitment, continuity and investment have been shown to be positively associated with continued maternal employment after a child’s birth (Blau, Ferber, and Winkler 1998; Goldin 1990). For example, women with higher levels of education, higher number of hours worked pre-birth, higher hourly wages, and longer job tenure are

more likely to return to work after a child's birth (Glass and Riley 1998; Leibowitz, Klerman, and Waite 1992b; Smith, Downs, and O'Connell 2001). Several researchers draw upon neoclassical economic theory to explain the relationship between market value and labor force transitions (Desai and Waite 1991; Hofferth 1996; Klerman and Leibowitz 1999; Leibowitz, Klerman, and Waite 1992a; Leibowitz, Klerman, and Waite 1992b). Increased market value essentially increases wages, which deter job exits because the value of a mother's market time (her wage) is higher than her nonmarket time (her reservation wage); similarly, women with high market value will be more likely to enter the labor force (Becker 1991; Blau, Ferber, and Winkler 1998). Researchers have argued that as women make greater investments in their careers and demonstrate job commitment in a similar fashion as men, they will be compensated monetarily in a similar way as men, and the wage gap will disappear (Goldin 1990). The thinking follows that women who have higher levels of market value will respond in the same way that men do, that is they will maintain their employment at the same level regardless of their concomitant family responsibilities.

Gaining a higher education represents a career investment and enables the acquisition of a better paying job, with benefits and rewarding work. Research shows that mothers with higher education levels remain employed longer into their pregnancy and return to work more quickly after their first birth (Desai and Waite 1991; Leibowitz, Klerman, and Waite 1992b; Smith, Downs, and O'Connell 2001). However, Leibowitz, Klerman, and Waite (1992a) find that women with less than a high school degree are less likely to return to work than high school graduates, but

women with some college do not differ significantly from women with high school degrees.

Education also serves to provide alternative job opportunities, enabling one to switch jobs and advance when no advancement opportunities occur within the current employment structure. Mothers with higher education levels can use their education to get another job after they experience a labor force interruption, and higher levels of education can buffer the negative effect of less continuous employment (Felmlee 1984). Felmlee (1984) finds that education has a significant and positive relationship to rates of leaving employment.

Wages represent compensation for paid work and reward for earlier career investments. The effect of a woman's wages are consistent across the research—mothers with higher wages are more committed to the labor force; they return to work from maternity leave more quickly after a birth, are less likely to exit the labor force, and enter the labor force more quickly after job interruptions (Desai and Waite 1991; Felmlee 1984; Felmlee 1993; Leibowitz, Klerman, and Waite 1992a; Leibowitz, Klerman, and Waite 1992b).

Hours spent in market work tends to indicate job commitment, and part-time work generally is part of the secondary labor market, associated with low-status, low-pay, limited benefits, and high turnover, although not all part-time jobs are considered dead-end, bad jobs (Tilly 1996; Waldfogel 1997a). Research on job exits shows that the higher the number of hours worked, the lower the likelihood of a job exit (Glass 1988).

Job continuity has been shown to deter job exits. Mothers who remain employed longer into their pregnancy take less time off for maternity leave (Klerman and Leibowitz 1999; Smith, Downs, and O'Connell 2001) and mothers who have more continuous work experience are less likely to exit the labor force (Blau 1976; Blau, Ferber, and Winkler 1998; Moen and Smith 1986; Mott and Shapiro 1982).

### **Job characteristics**

Job characteristics, or measures of the work environment, can influence a mother's labor force participation in several ways. First, jobs that are rewarding—both financially and in nonpecuniary ways, such that they offer prestige, high status, and challenging work—may have higher labor force penalties for labor force withdrawal and thus deter women's labor force exits (Desai and Waite 1991). Managers and professionals often are required to devote a high time investment in work but receive high wages, high status, and challenging work as a reward (Blair-Loy 2003). Women with higher occupational prestige are less likely to experience a labor force exit, while women with high job dissatisfaction were more likely to exit the labor force and to change employers (Glass 1988). Surprisingly, Desai and Waite (1991) do not find any effect of the sex composition of an occupation on women's labor force participation during pregnancy or after the first birth (predominantly female occupation, part-year workers, part-time workers, or many mothers in the occupation), all theoretically predicted to draw women into the occupation because of their believed compatibility with family responsibilities.

Second, jobs that are flexible and convenient to combine with child rearing may be attractive to mothers because they reduce the cost of employment and

facilitate work-family balance, something that so many mothers struggle to achieve. Self-employment or public sector jobs seem to provide greater flexibility than private sector jobs in that they generally do not require over-time hours (Moen and Yu 2000). Holding these jobs may proxy for other job flexibility such as being able to negotiate part-time options. To date, I have not seen any studies that include the worker's sector as a covariate in determining job exits.

Finally, jobs that provide benefits often are considered "good jobs" and have high retention rates (Tilly 1996). These benefits may include health insurance, pensions, flexible spending accounts, flex-time, part-time options, the ability to work at home, child care at work, and liberal unpaid leave policies. Hofferth (1996) found that among mothers who worked during pregnancy, having the option for part-time work and liberal unpaid leave policies increase the chance of a mother returning to work after the birth of a child. Mothers who had access to a flexible spending account and liberal unpaid leave returned to work full-time, while mothers who had part-time work options available and child care at the work site returned to work part-time. Likewise, Glass and Riley (1998) find that job flexibility, the ability to work part-time, longer maternity leaves, the ability to avoid mandatory overtime, and supportive supervisor and co-workers all increased job retention after childbirth. Receiving health benefits through the current job is a likely proxy for other family friendly benefits, and is likely to retain mother workers.

## **Family related measures**

### **Children**

The number of children one has and the presence of young children mark a time in a mother's life that is family intensive and often conflicts with paid work outside the home. According to both the life course perspective and neoclassical economic theory, a mother's labor force participation will decrease at times when her family responsibilities are high. Total family child care costs are greater when preschoolers are present in the family, and increase with additional children. While a mother's earnings may exceed the cost of nonfamily child care for one child, the costs of child care for two or three children may well push the family to consider having one parent stay home with the children. Research shows that the effect of the number of children and age of youngest child on women's labor force exits is mixed, with some studies finding that greater family responsibility increases labor force exits (Baum 2002; Felmler 1995; Han and Waldfogel 2001; Hayghe and Bianchi 1994), and others finding no significant relationship or mixed results (Drobnic, Blossfeld, and Rohwer 1999; Hofferth 1996).

### **Family economics**

The family economic situation is theoretically and empirically an important factor in mother's labor force participation. Historically, economic need has been a driving force (McLaughlin 1982; Mott and Shaw 1986; O'Connell 1990; Rosenfeld 1996), with Black mothers and unmarried mothers returning to work the fastest after the birth of the first child (O'Connell 1990), likely because these mothers depend on their own earnings to support their families. Moen and Smith (1986) find that some

mothers prefer not to work but do so because of economic need. More recent maternity leave data no longer find that economic need is driving quick returns to the labor market; instead work-related variables, such as working late into a pregnancy and the use of maternity leave, are highly predictive of returning to the labor force after the birth of a first child (Smith, Downs, and O'Connell 2001). Similarly, Hofferth (1996) finds that mothers in families that were near poor returned to work less quickly than mothers in higher-income families.

Neoclassical economic theory assumes that the shadow-value of time (or the value of a mother's nonmarket time) would be higher for women with greater alternative sources of income, either from a husband, others, or from nonlabor income. Therefore, one would expect that a mother's labor supply would decrease as other family income increases (family income not including the mother's earnings). Research on mother's labor supply support this premise, and find a positive relationship between other family income and mother's labor force exits and a negative relationship between other family income and mother's labor force entrances (Desai and Waite 1991; Felmler 1984; Felmler 1993; Hofferth 1996; Leibowitz, Klerman, and Waite 1992a; Leibowitz, Klerman, and Waite 1992b).

The effect of child care costs on mothers employment has been studied extensively. According to economic theory, child care costs act as a tax on a mothers earnings, thus lowering the mother's effective wage in the labor market and having a negative impact on her propensity to participate in the labor force (Anderson and Levine 2000; Baum 2002; Blau and Robbins 1989; Connelly 1992; Han and Waldfogel 2001; Hofferth and Wissoker 1992). Additionally, research on child care

suggests that mothers may feel an increased attachment to their new infants and value mother care over other forms of child care, but as a child ages prefer organized child care arrangements for socialization, cognitive development, and school readiness (Smith 2002; Sonenstein 1991). The result from several studies is clear and consistent—higher child care costs decrease the probability that a mother will participate in the labor force. Han and Waldfogel (2001) find that these effects are larger for single mothers than for married mothers.

### **Demographic controls**

Several control variables have been included in models predicting labor force transitions. Age has been shown to decrease the likelihood of a job exit (Smith, Downs, and O'Connell 2001). Minority mothers tend to have a higher propensity to participate in the labor force (Vandenheuval 1997; Waite and Nielsen 2001) and living in a metro area increases the likelihood of a labor force transition. Moving has a negative effect on married women's labor force participation (Bielby and Bielby 1992; Boyle, Cooke, Halfacree, and Smith 2001).

### ***Summary***

This chapter examined the trends in the labor force participation of mothers and discussed labor force patterns around the time of childbirth. Different types of married couple families with children were discussed, and issues of marital power were reviewed. Other cultural currents, such as intensive mothering, delayed

childbearing, the social construction of gender, were considered along with their potential influence on mothers' labor force participation. Finally, the chapter reviewed the previous literature on the determinants of labor force participation. The following chapter reviews the theoretical framework that guides the interpretation of the results.

## Chapter 3: Theoretical Framework and Hypotheses

In this dissertation, I aim to better understand what factors contribute to a married mother's decision to change her labor force status—either to exit the labor force or to enter it. This chapter first develops the theoretical framework guiding the analysis based on three theoretical streams, and then discusses how a variety of determinants of labor force participation would be interpreted under the different theoretical streams.

### Theoretical Framework

In this dissertation, I investigate the extent to which work and family related variables and demographic controls are predictors of labor force transitions for married mothers. I draw on three theoretical streams: neoclassical economics, the life course perspective, and the social construction of gender and consider how each of these three perspectives may assist in the interpretation of labor force decision-making. I do not see these three perspectives as competing theories and I do not test them against one other. Rather, I draw upon all three to broaden the discussion and understanding of the processes at hand, as all three have worthy contributions to understanding labor force transitions of married mothers.

### Neoclassical economics<sup>3</sup>

Neoclassical economic theory, or New Home Economics, focuses on the division of labor within the family and argues that the 1950's style "traditional family" is the ideal family form (Becker 1965; Becker 1981; Becker 1991; Mincer 1962). The basic assumption underlying neoclassical models is that the family is a unit where adults make informed and rational decisions to maximize the utility and well-being of the family (Becker 1965; Becker 1991; Blau, Ferber, and Winkler 1998). In order to be a utility maximizing unit, a traditional division of labor where women specialize in housework and child care and men specialize in market work is necessary because there are considerable efficiency gains. Labor specialization is a central component in the family's cost-benefit calculation, as individuals invest more time and energy in those activities at which they are most efficient.

The notion of specialization and exchange is key to maximizing utility and efficiency of the family. One member specializes in market production enabling the family to purchase market goods and the other specializes in home production enabling the family to enjoy home-produced goods. They then exchange or pool the fruits of their labor to achieve the utility-maximizing household. For specialization to work, it is necessary that one individual has a comparative advantage in market or home production, one whose value of time spent engaged in home work is greater than the value of their time engaged in market work.

The concept behind specialization is that all actors are presumably rational utility maximizers, with each spouse specializing in the work that they do best in

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<sup>3</sup> The following discussion of neoclassical economic theory as applied to analysis of the family draws heavily from Blau, Ferber, and Winkler (1998).

order to gain the largest income and the greatest amount of satisfaction (Ferber 2003). Ferber (2003) offers a simple example to illustrate this point. “Assume that the man can earn \$20 an hour or produce a dinner during the same period of time, while the woman can produce a better dinner, or earn \$15; it is obvious that he should work in the market, and the women should stay home and cook dinner. Or, assume that both could earn \$15 an hour, but the woman would cook a better dinner; the rational decision is that she should stay at home” (page 10-11).<sup>4</sup> When applied to the actual work and family decision-making process, the actual time allocation chosen by each individual will depend on their preferences for market and home-produced goods.

It is generally the case that men have a comparative advantage in market work and women have a comparative advantage in home production. Neoclassical theorists argue that women are more efficient at and better suited for housework and develop “tastes” or “preferences” for it, since they are biologically more involved in the bearing and rearing of children. Men on the other hand, are more efficient at market work because they spend more time doing it, and thus continue to earn more than women. Neoclassical economists argue that women accumulate less human capital because they have less continuous lifetime work experience than men; they seek “family-friendly” jobs that are easier to combine with parenting, at lower pay rates; and they are less productive at work since they have less energy for it due to their exhausting housework and child care demands (Budig and England 2001; Ferber 2003).

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<sup>4</sup> Neoclassical economic theorists have not explicitly discussed rational decision-making when the gender roles are reversed. I discuss this further in the next section.

Blau, Ferber, and Winkler (1998) posit that men's comparative advantage in market work can be true for several reasons—because in general girls and boys are raised with different expectations and receive different education and training; market discrimination against women has lowered their market earnings; and the traditional division of labor generates skills in the sphere in which one specializes, and thus women have become better at home production because they specialize in it and men have become better at market work because they specialize in that.

The neoclassical model can also be used to explain how individuals decide whether or not to participate in the labor force. A mother's decision to work or not is made by comparing the value of her time in the market (her wage,  $w$ ) to the value she places on her time spent at home caring for children and doing housework, or her reservation wage ( $w^*$ ), given a fixed budget constraint. If  $w$  is greater than  $w^*$ , she participates in the labor market; if  $w$  is less than  $w^*$ , she does not (she remains out or exits). The value of her market time consists of her wage rate net of child care expenses, and depends on her market value, including her education level, job skills, seniority, and cumulative work experience (Desai and Waite 1991; Hofferth and Collins 2000; Hofferth 1996; Leibowitz, Klerman, and Waite 1992b). The value of her nonmarket time, or reservation wage, is influenced by tastes and preferences (as is the value of market time) and also by the level of demands on the nonmarket time. For example, the presence of very young children or other circumstances requiring intense attention will increase her reservation wage (Blau, Ferber, and Winkler 1998; Hofferth 1996; Leibowitz, Klerman, and Waite 1992b). The availability of income from other sources (husband or savings) also influences the value placed on her

nonmarket time, reducing the opportunity cost of her foregone wages and leading to lower labor force participation (Blau, Ferber, and Winkler 1998; Hofferth and Collins 2000; Leibowitz, Klerman, and Waite 1992b).

The theory implies that factors that increase the value of a mother's market time, or her wages, tend to increase the probability that she will participate in the labor force (Blau, Ferber, and Winkler 1998). Therefore, factors that increase her market value such as higher education levels, full-time work, continuous work experience, and longer job tenure all are theoretically (and empirically) positively associated with continuous labor force participation. Mothers with high market value will remain in or enter the labor force while mothers with low market value will exit or remain out. The value placed on market work should also ideally take into account job characteristics, with those jobs that are more challenging, offer rewarding work, provide a pleasant environment, and offer benefits such as health insurance increasing the probability of labor force participation (Blau, Ferber, and Winkler 1998).

On the other hand, factors that increase the value of nonmarket time will lower the probability that she will participate in the labor force (Blau, Ferber, and Winkler 1998). The presence of young children, a high number of children, twins, and a preference for maternal care for children all are in theory negatively associated with labor force participation. Other family income, which in effect decreases the opportunity costs of not working, and thus increases the value of nonmarket time, will be negatively associated with labor force participation. High child care costs will effectively lower a mother's wage and increase the value of nonmarket time, and thus will be negatively associated with labor force participation (Anderson and Levine

2000; Baum 2002; Connelly 1992; Han and Waldfogel 2001; Hofferth and Wissoker 1992).

### **Life course perspective**

For many, the neoclassical model does not give sufficient attention to developmental pathways, and the social context within which work and family decisions are made. A life course, role context theoretical approach focuses not on what each individual gets out of market and nonmarket work and the best ways to maximize household efficiency, but rather on the context of lives. Life stage, the timing of events, and each spouse's circumstances influence the family decision-making process; thus, considering their respective roles illuminates the intricacies of the work/family interface (Moen and Yu 2000). A life course perspective provides a framework that guides research exploring the dynamics of multiple, interdependent pathways (Elder 1994). This is very helpful when considering a couple's decision for the wife to exit or enter the labor force because the labor force participation of one spouse potentially has ramifications on the other spouse's consumption, leisure, housework demands, and pressure to be the sole or primary breadwinner.

Two aspects of the life course perspective can potentially enhance our understanding of the dynamics involved in labor force decision-making. The first is the concept of adaptive strategies, which is based on the notion that actors have interdependent lives, and they make choices based on their interactions with their family, friends, and coworkers over the life span (Elder 1994; Moen and Yu 2000). Adaptive strategies are the ways couples cope with the pressure of simultaneously

building families and careers, and most often reflect the normative, culturally prescribed ways of behaving (Moen and Yu 2000). Moen and Yu (2000) emphasize how married women's "choices" are constrained by their husbands' circumstances. Married women tend to adapt their labor force behavior as a couple work-family balance strategy in response to their husband's work situation. For example, a mother may cut back her work hours or even quit her job in response to her husband's long work hours because she does not want to have her children in child care for long hours each day.

The timing of life events is the second concept of the life course perspective that is potentially useful in explaining married mother's labor force behavior. The timing of lives is grounded on the idea that certain life events are age-based, and reflect social expectations and beliefs based on age appropriate behavior (Elder 1994). Thus, life transitions like marriage or the birth of the first child can be relatively early or late according to demographic patterns and age norms. The timing of these family building life events can in turn, influence the timing of subsequent labor force transitions, particularly for women, who are typically responsible for housework and child care (Becker and Moen 1999; Coltrane and Ishii-Kuntz 1992). By analyzing the timing of events, analysts can be sensitive to the consequences of early or late transitions for later experiences and events. Central to the life course perspective is that developmental processes and outcomes are shaped by the social trajectories that people follow, and early choices and pursuits set the stage for those trajectories. Social timing also involves the scheduling of multiple trajectories, such as family and career building, and their synchrony or asynchrony.

The timing of a woman's first birth influences the level of education she attains (Hofferth, Reid, and Mott 2001), and in turn the career paths that are available to her (Coombs and Freedman 1970; Rindfuss and St. John 1983). The life course perspective provides a rationale for differential impacts on labor force participation depending on the age at first birth due to its attention to the timing of events and their consequences (Elder 1998). In short, the life course perspective argues that the timing of childbearing has an effect on the extent to which the birth of a child shapes a woman's life chances. Researchers argue that mothers who have accumulated sufficient work experience prior to childbearing may suffer a smaller price for their time away from paid work because they have built the foundation of their careers, and consequently this work experience enables them "time off" without suffering downward mobility in the future (Blackburn, Bloom, and Neumark 1993; Taniguchi 1999). Thus, under the life course perspective, late childbearing would be associated with a labor force exit, which differs from the expected relationship if using a neoclassical economic theory lens.

The life course perspective offers alternative interpretations from neoclassical economic theory regarding the meaning of husband's work hours and women's age at first birth. These interpretations are considered specifically in relation to married mothers' labor force exits or entrances in the section below entitled "Discussion of determinants."

## **Social construction of gender**

The gender perspective offers yet another alternative interpretation of what influences married mothers' labor force exits. While neoclassical economic theory argues that the husband is the altruistic head of the household and the perspective does not discuss in depth issues of marital power, central to the gender perspective is power and the maintenance of the gendered and unequal status quo within the home and in society.

The gender perspective views gender as something that is produced in everyday activities and interactions, with gender being a fundamental dimension of stratification within the family and society at large (Berk 1985; Ferree 1990; West and Zimmerman 1987). Rather than describing gender and the supposed differences between the sexes as biologically based, the gender perspective contends that through interactions with others, gender is negotiated and created in a situated and culturally appropriate context that reinforces the socially perceived differences between the sexes, creating what is generally viewed and accepted as appropriate "maleness" and "femaleness" (Osmond and Thorne 1993). Thus, gender is conceptualized as "the social construction and exaggeration of difference between women and men; and the use of these distinctions to legitimize and perpetuate power relations between women and men" (Osmond and Thorne 1993:593). The issue of dominance is central to the gender perspective, as the construction of difference, when difference doesn't really exist, requires power (Ferree 1990).

Based in symbolic interaction theory, the gender perspective focuses on how actors strive to create meaning out of their behaviors and the behaviors of others,

using symbols that denote shared meanings to define and interpret their lives (Zvonkovic, Greaves, Schmiede, and Hall 1996). Through this active process of deriving meaning from interaction, the behaviors of men and women are seen as opposites with unequal social value (Ferree 1990).

The gender perspective argues that gender is not simply something one “is” but rather, is something one does in interaction with others (Fenstermaker, West, and Zimmerman 1991). Actively producing gender is an accomplishment; “the activity of managing situated conduct in light of normative conceptions, attitudes and activities appropriate for one’s sex category” in the family, workplace, and society at large (West and Zimmerman 1987). The intersection of gender inequality at work and at home is a central tenant of the gender perspective, since interactions in the home reinforce and perpetuate the culturally accepted gender categories at work and vice versa (Fenstermaker, West, and Zimmerman 1991). Generally speaking, female occupations are often extensions of gender appropriate housework.

The gender perspective has been used to explain the division of household work among couples (Bittman et al. 2003; Brines 1994; Coltrane 2000). According to the gender perspective, women do gender when they engage in housework, and men do gender when they do not. Culturally, men’s primary work is to provide economically for the family, while women’s primary work is to maintain the home, even if she also engages in market work. Brines (1994) finds that men who are economically dependent on their wives do less housework as their dependency increases, particularly among low-income households, where the husband’s masculinity may be threatened due to their low earning capacity. She argues that

gender norms are violated when wives outearn their husbands, and therefore one or both members of the couple decide to free men from domestic work in order to avoid further gender deviance. If the wife earns more than her husband, the logic of gender display is that the couple will compensate by adopting gender-traditional behaviors elsewhere in the marriage (Brines 1994). Thus, low-earning husbands relative to their wives would not be expected to help with housework. Bittman et al. (2003) offer the term “gender deviance neutralization” to explain the compensatory behavior of a high earning wife relative to her husband, when she takes on more housework to neutralize the failure of her husband to provide a majority of the couple’s income.

In general, the gender perspective and “doing of gender” has been used to explain why wives engage in more housework than husbands. If a wife displays her gender by doing more of the domestic work to show she is female, this gender display intensifies her work and family conflict to a greater extent than her husband, and thus she would be more compelled to exit the labor force to accommodate her child rearing and family responsibilities. However, if one assumes that the act of a labor force exit in itself is also a compensatory behavior that can be used to neutralize the gender deviance of a wife outearning her husband, the gender perspective can be applied to the study of mothers’ labor force transitions. The theory as extended to labor force participation predicts that if the wife earns more than her husband, she would exit the labor force (or enter at part-time hours) to neutralize the gender deviance of her high earnings relative to her husband. Although I am not able to ascertain whether a labor force exit is due to pressures to “do gender,” the gender

perspective offers an alternative interpretation of the role of a wife's relative earnings in labor force transitions.

Although neoclassical economic theorists have not explicitly discussed rational decision-making and efficient family functioning when gender roles are reversed in married couple families (i.e., the wife has the comparative advantage in market work), one can assume that it would say that the wife would do more breadwinning. Recall the discussion on page 49 where different scenarios of wife and husband earning power and cooking skills were explored. An extension of those examples would lead us to assume that if the wife could earn \$20 an hour, and the husband \$15 an hour, and they are equally competent at cooking dinner, or the husband would cook a better dinner, the husband should stay home. But missing from this discussion is the case where the wife could earn \$20 an hour and the husband \$15, but the wife could cook a better dinner. In this case, the family would have to decide whether the better dinner was worth more or less than \$5.

Using a gender perspective in my examination of married mother's labor force participation allows for an alternate interpretation of the relationship between the wife's relative earnings and labor force exits.

### *Discussion of determinants*

The three theories discussed above provide multiple interpretations of how several measures might be correlated with a married mother's labor force participation, some leading to the same hypothesized relationship with labor force

participation, others leading to differing relationships. These theoretical interpretations and relationships are discussed below.

### **Work related measures**

#### **Market value (realized or potential)**

Neoclassical economic theory implies that factors that increase the value of a mother's market time, or her wages, tend to increase the probability that she will participate in the labor force. Therefore, factors that increase her market value such as higher education levels, full-time work, and continuous work experience are theoretically positively associated with continuous labor force participation. Consistent with economic theory, I expect that mothers with high market value will remain in or enter the labor force while mothers with low market value will exit or remain out.

#### **Job characteristics**

According to neoclassical economic theory, jobs that are family friendly and flexible would increase the value placed on market work and decrease the reservation wage. Having a managerial or professional job—a proxy for a challenging job that offers rewarding work and prestige—would decrease the chances for a labor force exit. Likewise, working for the government or being self employed—a proxy for more flexibility—would also decrease the chance of a labor force exit. Finally, receiving health insurance through your current employer—a proxy for a good job with benefits—would also decrease the chance of a labor force exit.

## **Family related measures**

### **Family economics**

Within a neoclassical economic model, other family income, not including the wife's earnings, decreases the opportunity costs of not working. High levels of other family income in essence give more "choice" to women, because with higher levels of other family income, most of which is likely generated through their husband's earnings, they can maintain a sufficiently high standard of living irrespective of their own labor force activity. Lower levels of other family income constrain women's choice and are expected to increase the value of her market time, because her earnings are necessary to keep the family solvent. Thus I expect a negative relationship between other family income and labor force participation.

Neoclassical economic theory perceives child care costs as a tax on a mother's wage, effectively lowering her wage and increasing the value of her nonmarket time. I expect that higher child care costs will be negatively associated with labor force participation.

### **Presence of children**

Neoclassical economic theory predicts that young children and large numbers of children increase a mother's reservation wage and increase the value of her nonmarket time, and thus lower the probability of her labor force participation. The life course perspective argues that mother's adapt their behavior in line with socially prescribed gender roles dependent on the life stage—both in terms of family and

career building. Hence, mothers intensely involved with family building, i.e., those with very young children and more children, will feel the need to adapt work-family strategies and exit the labor force or remain out more so than mothers with older and fewer children. The relationship between the presence of children and labor force participation is the same regardless of which theory one uses to interpret the results.

### **Timing of life events—Age at first birth**

According to neoclassical economic theory, early child bearing translates into less time to devote to further education and career building and to develop the ties to the labor market that provide monetary and nonpecuniary rewards from market work. As such, early family building pulls mothers away from a market orientation, increases her reservation wage and the value of nonmarket time, and is theorized to be negatively associated with labor force participation. The costs of working—child care, transportation, and other work-related costs—would be sufficiently higher than her wages and serve to encourage a labor force exit.

On the other hand, late child bearing translates into more time to invest in education and career building, a reduction in family size and thus family commitment, stronger ties to the labor force, greater market value, and higher economic rewards from the labor market. Economic theory argues that stronger ties to the labor force and higher wages effectively reduce the value of her nonmarket time. Women with high earnings are better equipped to buffer the opportunity cost of raising children, and can purchase child care which enables them to remain in the

labor force throughout childbearing years. A neoclassical economic theorist would expect late childbearing to be positively associated with labor force participation.

To round out the discussion on age at first birth, I draw on the life course perspective. The life course perspective concurs with neoclassical economic theory that delayed childbearing enables women to attain higher levels of education and invest in one's market value. However, the life course perspective adds the important dimension that it is the timing of family building that encourages or discourages continued education and the accumulation of market value, which allows for alternative explanations of how early or late family building may effect subsequent labor force participation.

For example, it is possible that early childbearers will remain in the labor force because their early family building has put them on a path of lower earnings and thus the need for the mother's wage is essential to keep the family out of poverty. Under this interpretation, early family building is hypothesized to be positively associated with labor force participation.

Furthermore, it is also theoretically possible that women who postpone childbearing would exit the labor force if one looks to the life course perspective for interpretation. Late child bearers tend to have high market value because they have been on a life course pathway that encourages higher education and continuous employment (Coltrane and Ishii-Kuntz 1992). They are likely to be well established professionally and more secure economically (Hofferth 1984). Researchers argue that women who delay childbearing until a later age appear to experience labor force transitions differently than those who begin childbearing at early ages (Coltrane 1990;

Coltrane and Ishii-Kuntz 1992). Although career interruptions tend to have a negative effect on wage attainment, and thus would deter labor force exits, Tanigushi (1999) contends that the disruptive effect varies by the timing of the interruption. The life course perspective provides a rationale for differential impacts on labor force participation depending on the age at first birth due to its attention to the timing of events and their consequences (Elder 1998). Researchers argue that mothers who have accumulated sufficient work experience prior to childbearing may suffer a smaller price for their time away from paid work because they have built the foundation of their careers, and consequently this work experience enables them “time off” without suffering downward mobility in the future (Blackburn, Bloom, and Neumark 1993; Taniguchi 1999). In short, late child bearers may believe that they will be able to reenter the labor force relatively easily because they have amassed human capital and market value. Under this interpretation, late child bearing is expected to be negatively associated with labor force participation.

The life course perspective also allows for the interpretation that the process of delayed child bearing somehow makes these mothers want to care for their child(ren) full time. If delayed child bearing is due to the difficulty in finding an appropriate mate or to difficulties in getting pregnant and the accumulation of higher education and work experience is filling the void, then delayed childbearing would be negatively associated with labor force participation. I am not able to test this theory, as my data set does not include any measures of the reason for delaying child bearing or the difficulties in getting pregnant.

### **Husband's work hours**

Under a life course perspective, couples have interdependent lives and take on adaptive strategies to balance the couple's work and family time. If the husband's job requires long work hours, the wife's "choices" are constrained by his work situation. The life course perspective theorizes that mothers married to men who work long hours would adapt their work schedules either by exiting the labor force (or reducing work hours) if the family is not willing to put their child(ren) in day care for long hours. Similarly, mothers would be reluctant to enter the labor force if married to men who work overtime hours. Likewise, for nonemployed mothers, being married to a husband who is not employed would constrain her choice. Under the life perspective, she would adapt her labor force behavior and enter the labor force.

The gender perspective offers the interpretation of a husband's long work hours as a display of his gender—central to being masculine in our society is being a breadwinner, and working long hours is one way to accomplish maleness in the home and the workplace. This display of gender among husbands by working long hours constrains wives to also display gender through a labor force exit or continued nonemployment.

Finally, neoclassical economic theory would interpret a husband's long work hours as part and parcel of men's comparative advantage in market work. Good-paying jobs require long work hours and overtime, and as men are more likely to hold the primary job, long work hours come along with that turf. Applied to married mothers' labor force transitions, having a husband who works long hours would

increase the value of her nonmarket time, decrease the value of her market time, and she would exit the labor force or remain out.

The three theories offer alternative interpretations of why mothers married to men who work long hours would be more inclined to exit the labor force, and less inclined to enter it, than mothers married to men who work fewer hours per week. But all three theories agree in their theorized relationship to mothers' labor force participation—a husband's long work hours are hypothesized to be negatively associated with labor force participation.

#### **Gender egalitarianism between spouses**

How are wife's relative earnings theoretically associated with labor force exits? Economic theory argues that the highest earner has the comparative market advantage, thus to maximize household efficiency the higher earner would remain employed, specializing in market work, and the lower earner would specialize in household work. In general, neoclassical economic theory has been called upon to explain women's lower labor force participation, married women's labor force exits, and women's lower earnings—all in the context of a wife's lower earnings power relative to her husband. When theorizing about the relationship of a wife's relative earnings when she outearns her husband, neoclassical economic theory has been relatively silent. Taken at face value, neoclassical economic theory suggests that families wishing to maximize their household efficiency would follow the same rules regardless of who has the comparative advantage in market work. Thus, in a gender-neutral world, mothers who outearn their husbands would not exit the labor force.

The gender perspective offers an alternative interpretation, as gender theory contends that gender and the active creation of gender is very much part of everyday life. Men display gender by engaging in market work and being the breadwinner. If his gender display is compromised or violated by a higher earning wife, the gender perspective makes the case that the couple will compensate by engaging in ways to neutralize the gender deviance of his failure to provide a majority of the couple's income. A labor force exit on the part of the wife is one such compensation, albeit a rather dramatic one. This compensatory behavior would reinforce and reproduce appropriate gender display, especially when one or both of the spouses believe in a traditional division of labor along gender lines. Although I cannot control for each spouse's gender ideology, it is likely that this comes into play when couples negotiate gender and their work and family responsibilities.

### Summary

Relying on three theoretical streams broadens the interpretation of the relationship between the independent variables and married mothers' labor force participation and allows for a more full examination of these determinants of mothers' labor force exits and entrances. Sometimes these theories hypothesize the same relationship with labor force participation, and sometimes they are different. However, I am not testing each theory against the others; rather, the analyses that follows draws on the strengths of each theory to gain a deeper understanding of the processes at hand.

## **Chapter 4: Data and Methodology**

This dissertation uses the Survey of Income and Program Participation (SIPP) 1996 panel and event history analysis to analyze labor force transitions into and out of the labor force. The SIPP is well suited to answer the questions posed in this dissertation because it collects a variety of family events, changes in household composition, and employment histories in interviews held every four months, with retrospective questions for the intervening months between interviews for a large number of wives and husbands. Event history analysis is appropriate because it allows the independent variables to change over time, leading to less bias in the estimates (Allison 1982), and because it allows for the inclusion of censored observations (Gupta and Leite 1999).

Event history analysis requires information on the timing of respondents' life course events. Event histories typically record the critical dates and activities of respondents' major life course transitions for the domains of family, education, military, and employment (Heaton and Call 1995). An ideal way to collect data on individual's life events is to gather the data as the events occur, thereby reducing memory and reporting errors. Short time intervals between interviews, in conjunction with retrospective questions to fill in transitions that occurred between survey interviews, allows for continuous event history data, minimizes bias from respondent recall, and reduces panel attrition (Heaton and Call 1995).

This chapter first describes the data used in this dissertation, the samples analyzed, and the dependent and independent variables used in this dissertation. Then, the chapter explains the methodologies that are used.

### Data Source

The data used in this dissertation come from the 1996 SIPP Longitudinal Panel. The large initial sample size (36,700 households) and the longer duration of this panel (4 years, instead of the more usual panel length of fewer years) allow investigation of employment patterns for a large number of married mothers. Improvements and expansions in the questions asked in the 1996 panel allow more focused and detailed analyses. The SIPP is well suited for my analysis because it collects detailed monthly demographic data and employment activity data for all persons in the household for each interview reference period (called a wave). The 1996 SIPP Panel was conducted for 12 waves, collecting data for a continuous 48-month period. In some instances, questions were asked about each month in the four-month reference period, in other cases questions were asked about the entire wave.

Appendix Table 4.A shows the interview schedule for the 1996 SIPP panel. Interviews were conducted from April, 1996 until March, 2000. Each wave of respondents is split into four roughly equal rotation groups and each month field representatives (or interviewers) interview one rotation group, or a quarter of the sample. At each interview, core data are collected for the previous 4 months (called reference months). This combined means that members of the same wave will have different interview months and reference months. Appendix Table 4.A shows the rotation groups, waves, and reference months for the 1996 SIPP longitudinal file.

### Overall Universe

This dissertation explores the labor force transitions of married mothers with children under 15 who entered the panel in the first interview wave (wave 1), were in two or more consecutive waves, and were aged 15 to 60 at wave 1 when they entered the panel. I also deleted cases where the interviews were invalid, three cases where the married mother was retired for all waves while in the panel, and the cases where a child under 15 was only present in the household for one wave. To conduct my analyses, I analyze a person-level file where the unit of observation is a **married mother** to provide descriptive characteristics of the sample, and then analyze a person-wave file where the unit of observation is a **person-wave** to explore labor force transitions using event history analyses. I examine a married mother's labor force participation pattern and simultaneous changes in her life for the period that she is followed in the survey (up to four years).

### **Person universe**

Table 4.1 shows that 9,845 women were in this overall universe, and on average they remained in the sample 10.4 waves, with 66 percent remaining in the sample all 12 waves. The longitudinal nature of the SIPP allows me to observe other life transitions, like marriage and childbearing, which enable women to enter my sample. For example, 92 percent of my overall sample is married at wave 1 and 91 percent do not have children under 15 living with them in their household. As women marry or have children during the panel they enter my sample. Likewise, as they become single or their children age out (turn 15) they exit my sample, although

they may remain in the panel. In addition, 24 percent of my overall sample had a birth during the panel, and 9 percent experience their first birth.

**Table 4.1 General person file sample, total universe and select characteristics**  
(Universe includes married mothers with children under 15 at some point in panel, who entered panel in wave 1 and were in sample for two or more consecutive waves, and were aged 15 to 60 at wave 1)

	<b>Number</b>	<b>Percent</b>
<b>TOTAL</b>	<b>9,845</b>	<b>100.0</b>
Mean number of waves in panel	10.4	
In all 12 waves	6,461	65.6
Married at wave 1	8,968	91.1
Number of children at wave 1		
None	889	9.0
One	3,556	36.1
Two	3,520	35.8
Three or more	1,880	19.1
Birth during panel	2,326	23.7
Married with child(ren) under 15 at wave 1	8,317	84.5

Source: 1996 SIPP Panel. Unit of analysis is person.

Table 4.2 shows employment patterns of my overall sample over the life of the 4-year SIPP panel. This table is based on the 9,845 women shown in the previous table and presents unweighted data. When considering their labor force status throughout the panel, 66 percent of the sample did not experience any labor force transition during the panel, 16 percent experienced one transition, 12 percent experienced two transitions, and 6 percent experienced three or more.

**Table 4.2 Employment Patterns of Overall Sample of Married Mothers**  
(Universe includes married mothers with children under 15 at some point in panel,  
who entered panel in wave 1 and were in sample for two or more consecutive  
waves, and were aged 15 to 60 at wave 1)

	<b>Number</b>	<b>Percent</b>
<b>TOTAL</b>	<b>9,845</b>	<b>100.0</b>
Number of transitions		
None	6,483	65.9
One	1,611	16.4
Two	1,128	11.5
Three or more	623	6.3
Employed at wave 1		
Employed throughout panel	7,075	71.9
Any labor force exit during panel	5,119	52.0
Number of exits		
One	2,427	24.7
Two or more	1,999	20.3
Not employed at wave 1 <sup>1</sup>		
Not employed throughout panel	1,364	13.9
Any labor force entrance during panel	2,533	25.7
Number of entrances		
One	2,107	21.4
Two or more	426	4.3

Source: 1996 SIPP Panel. Unit of analysis is person.

Note: The percent of labor force exits during the panel includes all exits captured in the panel, including exits following an entrance among mothers who were not employed in wave 1. Similarly for entrances, the percent of entrances captured in the panel includes entrances to mothers who were employed in wave 1.

<sup>1</sup>2,412 married mothers with children were not employed at wave 1.

The majority (72 percent) of the sample was employed at wave 1 when they entered the panel and 52 percent were employed the entire time they were in the panel. One quarter of the sample had a labor force exit at some point in the panel,

either being the first transition captured during the panel or an exit following an entrance also captured during the panel.

Twenty eight percent of the sample was not employed at wave 1 when they entered the panel and 14 percent remained not employed the entire time they were in the panel. Again, one quarter of the sample had a labor force entrance at some point in the panel, either being the first transition captured in the panel or an entrance following an exit.

### **Person-wave universe**

I construct the overall person-wave universe by selecting the data for the first month of each wave from the 48-month SIPP file for married mothers with children under 15 who entered the panel in the first interview wave (wave 1), were in two or more consecutive waves, and were aged 15 to 60 at wave 1 when they entered the panel. Because this universe is used to conduct the event history analysis and I am looking at transitions that occur from wave 1 onward in the panel, I omit the first wave of data because no labor force transitions have transpired yet. However, variables containing all the characteristics of the previous wave are created and added to the first month of each wave to allow for comparison between those who experience a labor force transition and those who do not. For example, month 4 data in wave 1 (longitudinal month 4) are found on month 1 wave 2 (longitudinal month 5) coded as last month's characteristics. Likewise, month 4 data in wave 2 (longitudinal month 8) are found on month 1 wave 3 (longitudinal month 9) coded again as last month's characteristics. Thus, all waves of data contain all the characteristics for the

current month and the previous month. The overall universe consists of 72,494 person-waves of observations, with 51,150 person-waves representing a wave where the married mother was employed and 21,235 person-waves where the married mother was not employed.

### Analytic Samples

I construct three different analytic samples using the SIPP 1996 panel longitudinal files. All samples are created to provide a complete event history with detailed chronological record of all significant events.

#### **Wave 1 sample—Person as unit of analysis**

The first sample analyzed includes women who were married with children under 15 at wave 1, who entered the panel at wave 1 and were aged 15 to 60 at wave 1. The unit of analysis for this sample is a married mother. I analyze the wave 1 sample to provide a general description of the married mothers in my sample. I restrict this sample to married mothers with children at wave 1 because it closely reflects the sample used in the event history analyses and I am able to provide weighted estimates using the wave 1 weight. Table 4.3 shows that my wave 1 sample consists of 8,317 married mothers with children under 15 in wave 1.

**Table 4.3 Analytic samples used in dissertation**

<b>Analytic sample</b>	<b>Number</b>
<b>Wave 1 person file sample</b> (Sample includes married mothers with children under 15 at wave 1, who entered the panel in wave 1 and were in sample for two or more consecutive waves, and were aged 15 to 60 at wave 1)	<b>8,317 married mothers</b>
<b>Person-wave file samples</b>	
<b>Labor force exit sample</b> (Sample includes person-waves where married mothers with children under 15 were employed the previous wave (i.e., they were at risk for a labor force exit in the current wave), had positive earnings in the previous wave, entered the panel in wave 1 and were in sample for two or more consecutive waves, and were aged 15 to 60 at wave 1)	<b>51,150 person waves</b>
<b>Labor force entrance sample</b> (Sample includes person-waves where married mothers with children under 15 were NOT employed the previous wave (i.e., they were at risk for a labor force entrance in the current wave), entered the panel in wave 1 and were in sample for two or more consecutive waves, and were aged 15 to 60 at wave 1)	<b>21,235 person waves</b>

**Person-wave labor force exits sample**

My second analytic sample includes person-waves where married mothers with children under 15 were employed the previous wave (i.e., they were at risk for a labor force exit in the current wave), had positive earnings in the previous wave, entered the panel in wave 1 and were in the sample for two or more consecutive waves, and were aged 15 to 60 at wave 1. The unit of analysis for this sample is a person-wave. Analyses of labor force exits use person-waves of exposure, or risk of a transition, which is an important point, as the “respondent” is not the unit of analysis in this sample. This means that there is a record for each married mother for each

wave (or 4 month period) that she is in the panel. Because of attrition, those individuals who were in the panel for a longer period of time contribute more person-wave records to the sample. This sample is used to analyze married mother's labor force exits using event history analysis. This sample enables an analysis of the process of labor force exits separately from labor force entrances. Table 4.3 shows that my person-wave labor force exits sample consists of 51,150 person-waves of observations at risk of a labor force exit, meaning that these records represent a wave where the respondent was married with at least one child under 15 years and had a paid job in the previous wave. This sample is used to conduct the event history analysis of labor force exits, and show the multivariate regression results.

#### **Person-wave labor force entrances sample**

My third analytic sample includes person-waves where married mothers with children under 15 were NOT employed the previous wave (i.e., they were at risk for a labor force entrance in the current wave), had positive earnings in the current wave if they entered the labor force, entered the panel in wave 1 and were in the sample for two or more consecutive waves, and were aged 15 to 60 at wave 1. Similarly to the previously explained sample, the unit of analysis is a person-wave. This sample is used to analyze married mother's labor force entrances using event history analysis and enables an analysis of the process of labor force entrances separately from labor force exits. Table 4.3 shows that my person-wave labor force entrances sample consists of 21,235 person-waves of observations at risk of a labor force entrance, meaning that these records represent a wave where the respondent was married with

at least one child under 15 years and did NOT have a paid job in the previous wave. This sample will be used to conduct the event history analysis of labor force entrances, and show the multivariate regression results.

### Attrition and Imputation

As in all longitudinal surveys, attrition is an issue. Overall sample loss in the 1996 panel is 35.5 percent over the 12-wave panel. Individual item response rates will vary by item. Most items on the SIPP are allocated through hot deck imputation techniques. Appendix Table 4.B shows the imputation rates for the key variables used in the analysis.

### Weighting

The Census Bureau produces one longitudinal weight for the SIPP 1996 longitudinal file, but it is only applicable for those who were present for the entire panel. Because of attrition, sample size would be greatly reduced if I restricted my sample to only those who had a longitudinal panel weight. Furthermore, it is very likely that those who attrite the sample differ in key characteristics from those who remain in the sample for all 12 waves.

In this dissertation, I use a normalized wave weight in my multivariate models. Each respondent with a valid interview has a valid monthly weight which I convert into a normalized wave weight to control for the sample design of oversampling certain populations (minority and low-income populations) and cluster

sampling. The normalized weight is constructed by dividing the last month weight in each wave by the average weight for the sample in that month. For example, the wave 1 weight is constructed by dividing the month 4 person weight by the average person weight for month 4.

### Standard Errors

Concerns have been raised regarding the potential for dependence between the observations in my dataset. Longitudinal data, such as the data used in this dissertation, generate multiple observations of each individual and the number of observations included in the sample differs from individual to individual. The concern is that the observations may not be mutually independent and thus would lead to estimates that are inefficient and biased, and overstated if the observations from the same individual are correlated. I account for the possibility of correlation due to clustered observations by running my models in SAS using the PROC GENMOD program and I uniquely identify individuals (i.e., married mothers) within households as clusters. This procedure adjusts the standard errors using Huber-White nonparametric correction techniques for multiple observations of sample people. The findings remained the same whether I correct the standard errors or not. Although Allison (1984) argues that this is not necessary to correct for non-independence when using discrete-time event history analyses, to avoid any potential bias introduced due to dependence among observations I report estimates from models with corrected standard errors.

### Data Limitations--Censoring

I rely on discrete-time event history modeling for several reasons, one of which is because I do not have a complete employment history of all respondents. I do augment the analysis by using the work history topical module data, but these data are only collected for those who are present at wave 1 when that module is administered, thus I restrict my sample to those who enter in wave 1. In addition, this module does not collect a complete employment history, rather it allows for the inclusion of some variables that measure work commitment and job continuity over the life course. By nature, panel data are censored at both ends, since I have limited information on employment prior to time 1 or after time 12. Hazard models account for right censoring.

Left censoring is an issue. Since I have very little information about women's lives prior to the first interview, the data are inherently left censored. Thus, women who exited the labor force prior to the survey period and then reentered—but not during the survey period—appear as employed women throughout the panel in the data. Similarly, women who entered the labor force prior to the survey period and then exited—but not during the survey period—appear to be not employed. In my analysis I am very clear that the results do not represent transitions over a lifetime but provide insight into the factors influencing labor force transitions over a four-year time period, a mere snapshot of a woman's work and family career. Clearly a full work history and family building history would be preferable to catch all labor force and other life transitions; however, my sample yields a sufficiently large number of labor force exits and entrances to provide insightful analyses.

### *Dependent and Independent Variables*

This dissertation focuses on labor force transitions of married mothers with children over a 4-year period. These transitions are operationalized in the following way.

#### **Dependent variables**

Labor force transition dynamics are examined in this dissertation by looking at two categories of dependent variables. The first category of dependent variables examined is labor force transition measures. The second category consists of two variables that attempt to better capture a measure of full-time motherhood. Appendix Table 4.C presents the variable name and coding for each of the dependent variables.

#### **Labor force transition dependent variables**

This dissertation examines two labor force transition dependent variables: labor force exits and labor force entrances. Both dependent variables are operationalized in a similar manner, using the same variables, however one indicates when a married mother exits the labor force and the other indicates when a married mother enters the labor force.

#### **Labor force exit dependent variable**

The labor force exit dependent variable is based on the response to a question about whether the respondent had a paid job in the past four months. The following question is asked at each interview in reference to the preceding four-month time

period: “Did ...(you) have at least one job (that is, a job for an employer, a business, or some other work arrangement) during the reference period or interview month?”

This question ascertains whether the respondent had a paid job in any of the four months of the wave (the interview or current month and the preceding three months).

Labor force exits are captured by looking at the responses to the labor force participation question longitudinally, wave-by wave, and noting the first transition during the panel for each respondent from having a paid job with positive earnings in the previous wave to not having a paid job in the current wave (note that labor force transitions only occur between waves). Although some respondents experience more than one labor force exit transition during the panel, my dependent variable is coded 0 if there is no labor force exit during the panel, and coded 1 when the first labor force exit occurs.

#### **Labor force entrance dependent variable**

The labor force entrance dependent variable is constructed using the same question ascertaining whether the respondent had a paid job or not as explained above. To capture labor force entrances, the responses to the labor force participation question are examined longitudinally, wave-by wave, and coded 1 when a respondent first transitions from not having a paid job in the previous wave to having a paid job with positive earnings in the current wave (note again that labor force transitions only occur between waves). If no labor force entrance occurs during the panel, the dependent variable is coded 0.

### **Full-time motherhood dependent variables**

I also define a dependent variable aimed at capturing transitions into and out of full-time motherhood. The SIPP survey asks respondents who answer “No” to the labor force participation question described above a follow-up question to determine the main reason they did not engage in market work over the past four months.

Although not definitive in identifying all full-time mothers, the use of this question allows a more focused analysis of labor force transitions into and out of full-time motherhood than the standard approach of simply using a labor force participation measure. The full-time mother dependent variables are based on the identification of married mothers who give reasons related to the care of children as their primary reason for not working, as opposed to giving other reasons for not working.

#### **Labor force exit into full-time motherhood dependent variable**

The dependent variable measuring a labor force exit into full-time motherhood is a categorical variable coded 1 if there is a labor force exit for full-time motherhood reasons, coded 2 if there is a labor force exit for other reasons, and coded 0 if there is no exit. Again, only the first transition is captured in this dependent variable. This dependent variable measuring the transition into full-time motherhood is constructed by examining the longitudinal data, wave-by wave, and noting any labor force exit with an accompanying full-time motherhood reason for not working and noting those labor force exits with other primary reasons for not working.

The full-time mother category is operationalized by coding as 1 those married women with a child under 15 who were employed in the previous wave, (so they were at risk for a labor force exit), had positive earnings in the previous wave, and

transition into being not employed in the current wave with the explicit main reason to care for children or others. The “exit for other reason” category is operationalized by coding as 2 those married women with a child under 15 who were employed in the previous wave, (so they were at risk for a labor force exit), had positive earnings in the previous wave, and transition into being not employed in the current wave with the another explicit main reason. Married mothers who do not experience a labor force transition are coded as 0.

Because the labor force variable requires the respondent to be out of the labor force for the entire wave, or all four consecutive months, the minimum length of each full-time motherhood spell is four months and is only tracked in terms of four-month intervals. However, not all short (4 months or less) full-time motherhood spells of 4 or more months are captured in this analysis. The nature of the question allows for mothers who do not work in a time frame that spans two interview periods to not be counted because these mothers were employed for at least one of the months in the reference period for both of the interview periods. A second shortcoming of this proposed definition is that mothers who stay at home and care for their children, but do not give this as their main reason for not working are not identified as not employed for child care reasons. For example, the mother gives “going to school” as her main reason for not working, but she cares for her children all day and goes to school at night while her husband cares for the children. The purpose of examining the full-time motherhood dependent variables is to determine whether the married mothers who explicitly exit the labor force to care for children and family differ from married mothers who have other primary reasons for exiting the labor force and how

this may influence the more standard approach of using a labor force participation measure as an indication of mothers who exit the labor force to care for children.

Table 4.4 shows the weighted frequency distribution of the primary reason married mothers with children under 15 give for being out of the labor force in wave 1. This table is based on the nonemployed mothers who were married and had at least one child under the age of 15 in wave 1 (28 percent of the married mothers with children under 15 were not employed in wave 1). The vast majority of nonemployed mothers, 82 percent, state a reason related to the care of children (pregnancy/childbirth and taking care of children/others). The remaining married mothers give reasons related to temporary or chronic health problems (6 percent), are not interested in working (4 percent), are in school (3 percent), are retired (2 percent), are unable to find work (2 percent), are on layoff (1 percent), or give other reasons (3 percent).

**Table 4.4 Primary Reason Not Employed, Married Mothers with Children under 15 in Wave 1**

	Unweighted		Weighted	
	Number	Percent	Number	Percent
<b>Married nonemployed mothers at wave 1</b>	<b>2,421</b>	<b>100.0</b>	<b>6,535,701</b>	<b>100.0</b>
<b>Primary Reason not Employed</b>				
Temp unable injury	10	0.4	28,898	0.4
Temp unable illness	26	1.1	65,995	1.0
Chronic condition/disability	105	4.4	277,868	4.3
Retired	8	0.3	23,214	0.4
<b>Pregnancy/childbirth</b>	<b>108</b>	<b>4.5</b>	<b>285,729</b>	<b>4.4</b>
<b>Taking care of children/others</b>	<b>1,855</b>	<b>76.9</b>	<b>5,045,502</b>	<b>77.2</b>
Going to school	75	3.1	204,740	3.1
Unable to find work	51	2.1	129,827	2.0
On layoff	18	0.8	48,540	0.7
Not interested in working	85	3.5	224,223	3.4
Other	71	2.9	201,166	3.1

Source: 1996 SIPP Wave 1. Unit of analysis is a married mother.

#### **Labor force entrance from full-time motherhood dependent variable**

The dependent variable measuring a labor force entrance from full-time motherhood is also a categorical variable coded 1 if there is a labor force entrance among married mothers who were out of the labor force for full-time motherhood reasons, coded 2 if there is a labor force entrance for married mothers who were out of the labor force for other reasons, and coded 0 if there is no entrance. This dependent variable measuring the transition from full-time motherhood is constructed by examining the longitudinal data, wave-by wave, and noting the first labor force entrance during the panel with an accompanying full-time motherhood reason for not being employed in the previous wave, and noting those labor force entrances with other primary reasons for nonemployment.

The full-time motherhood entrance dependent variable is operationalized in a similar manner as the full-time motherhood exit dependent variable explained above, with the exception that now those who enter the labor force are coded as having an event. The full-time mother entrance category is operationalized by coding as 1 those married women with a child under 15 who were not employed in the previous wave (so they were at risk for a labor force entrance) with the explicit main reason to care for children or others, and transition into being employed in the current wave and have positive earnings in the current wave. The “enter for other reason” category is operationalized by coding as 2 those married women with a child under 15 who were not employed in the previous wave (so they were at risk for a labor force entrance) with another main for nonemployment, and transition into being employed in the current wave and have positive earnings in the current wave. Married mothers who do not experience a labor force transition are coded as 0.

Table 4.5 shows the unweighted number of person-waves where a labor force exit or entrance occurred. Of the 51,150 person-waves where a mother was at risk for a labor force exit, in 1,848 person-waves a labor force exit occurred during the panel, 1,432 for full-time motherhood reasons and 416 for other reasons. Turning to labor force entrances, of the 21,235 person-waves where a mother was at risk for a labor force entrance, in 1,990 person-waves a labor force entrance occurred during the panel, with 1,571 entrances from full-time motherhood and 419 from other reasons.

**Table 4.5 Dependent Variables**

	<b>Labor force exits sample</b>	<b>Labor force entrances sample</b>
<b>Total sample size, person-waves</b>	<b>51,150</b>	<b>21,235</b>
<b>Dependent variables</b>		
<b>Labor force exits</b>		
First labor force exit	1,848	NA
For motherhood reasons	1,432	NA
For other reasons	416	NA
<b>Labor force entrances</b>		
First labor force entrance	NA	1,990
From motherhood reasons	NA	1,571
From other reasons	NA	419

Source: 1996 SIPP Panel. Unit of analysis is person-wave.

By nature, my dependent variables are rather fluid, with the universes and those at risk of a labor force transition event changing wave to wave—namely employment, marital, and parental status change over time, and individuals leave the sample. Thus, the number of married mothers at risk of a particular transition event changes from wave to wave. Longitudinal data captures when a married mother becomes divorced and when a marriage occurs, or when a birth occurs and when a 14-year old child becomes 15. All of these life changes indicate whether the woman is eligible to be in my overall universe of married mothers with a child under 15. Additionally, the primary reason given for not being employed can change wave to wave even for married mothers who remain not employed. For example, a married nonemployed mother may be in school as the primary reason for not working, but then finish or stop school and give a full-time motherhood reason as her primary reason for nonemployment. Changing reasons for nonemployment will not bias my

analysis because I am looking at the initial break with the labor force rather than reasons for continued nonemployment. Despite these limitations, the SIPP data are unique in that they identify the main reason for nonemployment and allow a first foray into whether labor force transitions differ depending on the reason for nonemployment.

Table 4.6 below demonstrates how the overall universe of married mothers with a child under 15 changes from wave to wave. The unit of analysis is the person and the table shows unweighted data. In wave 1, for example, the overall universe is 8,317 individuals and by wave 12 this number dropped to 5,738, mostly due to attrition, although some are not eligible due to becoming divorced or separating or because their youngest child turned 15 during the panel. Simultaneously, some individuals became eligible to be in my sample because they got married or had a first birth, or had a child enter their household.

Table 4.6 also illustrates how the labor force exits sample is constructed. The 5,903 employed married mothers in wave 1 constitute the group at risk of experiencing a labor force exit by wave 2. This at risk group contributes a wave of data to the labor force exits sample made up of their wave 1 characteristics, wave 2 characteristics, and the dependent variable noting whether they experienced a labor force exit from wave 1 to wave 2. The 5,877 employed married mothers in wave 2 constitute the group at risk of experiencing a labor force exit at wave 3, and they also contribute a wave of data in the labor force exits sample made up of wave 2 characteristics, wave 3 characteristics, and the dependent variable noting whether they experienced a labor force exit from wave 2 to wave 3. This continues

**Table 4.6 Unweighted Numbers of Married Mothers with Children Under 15 and Employment Status by Wave**

	<b>Wave 1</b>	<b>Wave 2</b>	<b>Wave 3</b>	<b>Wave 4</b>	<b>Wave 5</b>	<b>Wave 6</b>	<b>Wave 7</b>	<b>Wave 8</b>	<b>Wave 9</b>	<b>Wave 10</b>	<b>Wave 11</b>	<b>Wave 12</b>
Married mothers with children under 15	8,317	8,166	7,491	7,487	7,179	6,916	6,625	6,523	6,352	6,175	5,818	5,738
Employed	5,903	5,877	5,332	5,321	5,144	4,928	4,696	4,638	4,531	4,451	4,166	4,129
Not employed	2,412	2,289	2,159	2,166	2,035	1,988	1,929	1,885	1,821	1,724	1,652	1,609
Full-time mother primary reason	1,963	1,890	1,774	1,810	1,687	1,626	1,600	1,561	1,512	1,428	1,339	1,295

Source: 1996 SIPP Wave 1. Unit of analysis is a married mother.

throughout the panel, with each group at risk of a labor force exit contributing a wave of data to the total sample.

Likewise, the 2,412 nonemployed married mothers in wave 1 are at risk of a labor force entrance in wave 2. They contribute one wave of data to the labor force entrance sample made up of their wave 1 characteristics, wave 2 characteristics, and the dependent variable noting whether they experienced a labor force entrance from wave 1 to wave 2. By looking across the waves, and comparing the labor force status of the previous month to the current month, I identify those married mothers with children under 15 who experience a labor force exit or entrance and code them appropriately.

### **Independent variables**

The independent variables used in this dissertation were selected because there is prior empirical or theoretical evidence of a relationship with labor force participation decisions. The variables discussed below are grouped into six broad categories, which are explored in this dissertation, namely: 1) mother's market value, 2) job characteristics, 3) children, 4) family economics, and 5) gender egalitarianism between the wife and husband. Control variables are discussed at the end of this section. First I discuss the independent variables used in the labor force exit models and then those used in the labor force entrance models.

## **Labor force exit models**

All of the independent variables used in the labor force exit models represent the characteristics at the wave prior to the transition, unless otherwise noted. In this way, I am able to recreate the family situation just prior to the labor force transition at a time when the final decision to exit the labor force was being made.

## **Work related measures**

### **Market value (realized)**

Market value is measured by education level, whether you hold a full-time job, monthly personal earnings, and cumulative work experience. According to neoclassical economic theory, market value is positively associated with labor force participation, that is, those with greater market value tend to have greater labor market prospects and are more likely to be gainfully employed (Becker 1981).

To determine how education level is associated with labor force exits, four dummy variables are created from the educational attainment variable: less than a high school degree, high school graduate (reference group), some college, and college graduate. College graduate is further broken down into two categories: Bachelor's degree and Master's Degree and higher. One case was missing educational level at wave 1 and was coded as less than high school because the respondent was 15.

Usual hours worked is a continuous measure, calculated from respondent's answers to the question of their usual hours worked per week in the last month. The total hours worked is calculated by summing the hours worked at up to two jobs or businesses. Employment status dummy variables were created with the following

categories: part-time hours (1 to 34 hours) and full-time hours (35 or more, reference group).

Monthly personal earnings are an average of earnings over the previous four months, not including any months with no earnings. This methodology is preferable than simply taking one month's earnings because of variability in earnings. Several earnings constructs were created and tested to determine the best way to measure the effect of earnings. Some of these specifications included a continuous variable of monthly earnings based on the direct question of personal earnings from a paid job, and a categorical variable grouped into four categories, and the log of personal earnings. I include the log of monthly personal earnings in the models.

Several variables were created to measure previous work experience. The work history topical module gathers information from respondents on a number of questions regarding previous work experience and breaks in the labor force for care-giving. The topical module is administered in wave 1 and refers to work experience prior to the panel. Therefore, this variable is the same for all waves the respondent is present in the panel, since their previous work experience prior to the panel does not change over the panel. I include two dummy variables indicating the number of years the respondent has had a labor force break for 6 or more months for care-giving prior to the panel. The first is 1 to 2 years with a labor force break for 6 or more months, and the second is 3 or more years with a labor force break for 6 or more months. The reference group is those who have never had any labor force break for 6 or more months for care-giving. I tested several configurations of this construct to find the best measure of number of years with a break, by including more detailed categories

and also a continuous variable. I also tested a dummy variable noting whether the respondent has had any break in the labor force for six or more months for caregiving prior to the panel.

### **Job characteristics**

Occupation is included in the labor force exit models to test whether women employed in certain occupational categories are more likely to exit the labor force. Since it is unwieldy to include all occupations individually, I created six dummy variables broadly grouping six occupational categories: professional/managerial, sales, administrative, clerical, farm/forest/fisheries, and other. Previous researchers (Becker and Moen 1999; Blair-Loy 2003; Moen and Yu 2000) argue that professional and managerial careers demand a high time investment in work. These jobs also provide meaning to life and rewards (Blair-Loy 2003). After testing the six dummy variable construct, I refined my occupation measure to one dummy variable coded 1 if the married mother worked in a managerial or professional occupation, 0 otherwise, because the relationship was maintained by grouping all of the other occupation categories.

The class of worker is coded into the following 4 dummy variables: 1) Private for profit (reference group); 2) Private not for profit; 3) Government worker at the local, state and federal levels; and 4) Own business or family worker. Public sector jobs and self-employment are theoretically more flexible than private sector jobs (Moen and Yu 2000), however, it is possible that private not for profit jobs are less time intensive than private for profit jobs. Thus I include three dummy variables

indicating whether the married mothers 1) works in the private not for profit sector, 2) works in the public sector, or 3) is self-employed.

Jobs with benefits, such as health insurance, tend to retain employees (Tilly 1996). I include two dummy variables simultaneously indicating whether the mother has health insurance and the source of the health insurance. The first dummy variable is coded 1 if the mother receives health insurance through her current job, and 0 otherwise. The second dummy variable is coded 1 if the mother does not have any health insurance, and 0 otherwise. The reference category is married mothers with health insurance through someone else (most of the time this is their spouse, but it could also be someone else).

## **Family related measures**

### **Children**

Whether or not a mother is in the process of building a family, measured by the presence and number of young children, has shown positive effects on women's labor force exits. I created dummy variables of the age of the youngest child to correspond with specific stages of child development and with potential level of demands on a mother's time: less than 1 year, 1 and 2 years, 3 through 5 years, 6 through 9 years, and 10 through 14 years (reference category). Number of children present was recoded to the following: one child (6 to 14 years old is the reference category), two children, and three or more children.

A change in family status through the birth of a new child has been well documented as a trigger for labor force exits. I include a dummy variable indicating

whether a birth occurred in the previous wave (any of the four months) or the current wave (any of the four months). Another dummy variable indicating whether a child (not including a new baby) recently entered the family in the previous wave (any of the four months) or the current wave (any of the four months) is also included in the models.

#### **Timing of events—Age at first birth**

Two measures were coded to explore early, on-time, and late life course transitions involving family formation and labor force transitions. Age at first marriage and age at first birth questions are asked on the SIPP in wave 2, in the fertility and marital history topical modules. Respondents who were never married or had never had a birth were tracked during the panel and given their age at first marriage or first birth as it occurred.

Previous research has defined delayed childbearing as occurring after age 28 (Coltrane and Ishii-Kuntz 1992), or after age 30 (Hofferth 1984; Martin 2000). Likewise, early childbearing has been defined as teenage childbearing (Hofferth and Moore 1979; Hofferth, Reid, and Mott 2001; Rich and Kim 1999; Taniguchi 1999). The timing of first childbirth was indexed in this dissertation by four categories based on the age at first birth: 1) first birth occurred at age less than 22, 2) first birth occurred at age 22 to 28 (reference group), 3) first birth occurred at age 29 or older, and 4) missing age at first birth data. These cutoff points were based on an analysis of the National Center for Health Statistics (NCHS) vital statistics data that show that the mean age at first birth was 24.6 in 1996, was 24.7 in both in 1997 and 1998, and was 24.8 in 1999 (Mathews and Hamilton 2002), the years of the 1996 SIPP Panel. Creating a group to be on-time with a reasonable number of years around 25, I

created the grouping of on-time first birth to be age 22 to 28. A first birth over age 28 was thus considered late, and a birth prior to age 22 was considered early.

The age at first birth variable is the same for all waves the respondent is present in the panel, since the age at first birth does not change once it occurs. In preliminary analyses, I included two life course transition variables (one measuring the age at first marriage and another measuring the age at first birth); however, they displayed the same results and were highly correlated. Thus I dropped the age at first marriage variable and kept the age at first birth variable, as previous research has documented that the birth of a first child signals numerous changes in a woman's life (Desai and Waite 1991).

### **Family economics**

When making labor force transition decisions, family economic resources are likely to be considered. I include three measures of family economics in the models—other family income (excluding the mother's earnings), husband working 65 or more hours per week, and estimated market cost of child care.

Other monthly family income, not including the wife's earnings, is included to measure the family income available to the family when the wife does not work. Other monthly family income primarily reflects the husband's earnings, but also includes other forms of family income. Family income is an average of earnings over the previous four months, not including any months with no income. I include two specifications of monthly other family income in this dissertation. The first is monthly other family income grouped into four categories, 1) less than \$1,500 (reference group), 2) \$1,500 to \$2,999, 3) \$3,000 to \$4,499, and 4) \$4,500 and over.

I use this specification in the frequency distribution tables and in one specification of the final full labor force exits model. The second specification is a continuous specification, the log of other family income. This specification is included in most of the models. In addition, dummy variables measuring the poverty status (in poverty and near-poor or 125 percent of poverty) were tested in the models but not included in the final models due to collinearity.

#### **Husband's work hours**

To test whether mothers married to husbands who work long hours are more likely to exit the labor force, I include a dummy variable coded 1 if the husband works over 65 hours per week, and 0 otherwise. I tested several other configurations of overtime as well, defining overtime as 45 or more hours, 50 or more hours, 55 or more hours, and 60 or more hours. I chose the 65 or more measure because it represents a sufficient amount of overtime that would render the husband pretty much inaccessible to take on a meaningful amount of the child care and household domestic tasks (25 extra hours per week).

#### **Child care costs**

Research shows that child care costs influence mother's labor force decisions: higher child care costs increase labor force exits and decrease the rates of entering the labor force (Anderson and Levine 2000; Baum 2002; Blau and Robbins 1989; Connelly 1992; Han and Waldfogel 2001; Hofferth and Wissoker 1992; Kimmel 1995; Michalopoulos and Robins 2000; Ribar 1992). According to neoclassical economic theory, child care costs act as a tax on women's earnings and effectively lower their wage rate. The omission of child care costs would introduce bias and

increase the error terms in my models. However, the SIPP does not collect child care costs of those using child care for each month longitudinally, nor does it collect data on potential child care costs for those not using child care. Child care questions are asked twice over the life of the 1996 SIPP panel (in wave 4 and wave 10 in the child care topical modules). All arrangements used and total costs for each arrangement are collected. Because child care arrangements and costs are not collected longitudinally for each month in the panel, I impute estimates of the market child care costs for all families with children, regardless of the employment status of the mother, for each wave based on the wave 4 child care data. This allows the estimated child care costs to change as family structure and other family characteristics change.<sup>5</sup> Since the observed child care costs paid by child care users may not accurately reflect child care prices facing women who are not currently using child care, it would still be necessary to predict child care costs even if the SIPP did collect child care costs in every wave (Blau and Hagy 1998; Han and Waldfogel 2001).

I predict child care costs using data on married women with at least one child under 15 who are employed and using paid child care in the 1996 SIPP Wave 4 Topical Module (collected in the Spring of 1997). Anderson and Levine (2000) describe several methodologies used in previous research to predict child care costs and make a concentrated effort to present a commonly-agreed-upon set of assumptions in order to bring the field closer to convergence on a standard approach. For this reason I follow Anderson and Levine (2000), and several other researchers

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<sup>5</sup> Baum (2002) in his longitudinal study of child care costs does not allow the cost of child care to vary over the life of the panel; however I believe that as the determinants of child care cost change, for example, the number and ages of children change throughout the panel, the estimated market cost of child care for each family will also change.

who use a similar methodology (Baum 2002; Han and Waldfogel 2001; Hofferth and Wissoker 1992).<sup>6</sup> I use the SIPP child care topical module data to estimate a model to predict individual child care costs per hour worked.<sup>7</sup> To determine the cost of care per hour worked, I divide the weekly child care expenses by the number of hours the mother works per week.

I estimate the child care costs controlling for sample selection bias due to the fact that child care costs are only observed for women who are employed and using paid child care. I correct the regression coefficients for sample selection bias using the standard two-stage technique developed by Heckman (1979). Thus the selectivity equation estimates the joint decision of a mother to be employed and to use paid child care. First I estimate a probit model to predict the probability of having child care costs (as opposed to having zero child care costs) and then use the results from that probit to control for sample selection bias in the main equation estimating child care costs. The market price of care is specified as a function of demographic characteristics thought to influence the type of care chosen and the child care market characteristics, following Han and Waldfogel (2001) and Anderson and Levine (1999). I identify the probability that a mother is employed and paying for child care by including the unemployment rate and the square of the mother's age in the selectivity equation but not in the equation that predicts child care costs. The unemployment rate may influence whether a mother is employed, but once she is

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<sup>6</sup> I follow Han and Waldfogel (2001) very closely in the set of variables that I put in my model. There is one difference in my model: I use a slightly different set of controls for the age of children. Hence, like Han and Waldfogel (2001), my model differs from Anderson and Levine (2000) in that I include more detailed controls for the age of children, I do not include disability status, and do not distinguish between employed and unemployed other household members.

<sup>7</sup> Connelly (1992) and Han and Waldfogel (1999) predicted the hourly cost of child care per hour worked, Ribar (1992) and Michalopoulos and Robins (2000) predicted the cost of child care per hour used, and Kimmel (1998), Anderson and Levine (1999) and Baum (2002) used both measures.

employed and pays for care, the unemployment rate should have no effect on the amount paid for care. Following Anderson and Levine (1999) and Han and Waldfogel (2001), I drop the five states that are not separately identified in the SIPP so that I can use the state unemployment rate to control for the tightness of the labor market in the probit.

I estimate the following two models jointly:

Probability of paying for child care =  $\Phi (\beta_0 + \beta_1 (\text{mother's age}) + \beta_2 (\text{mother's age squared}) + \beta_3 (\text{mother has a high school degree}) + \beta_4 (\text{mother has some college}) + \beta_5 (\text{mother has college degree or higher}) + \beta_6 (\text{black}) + \beta_7 (\text{Hispanic}) + \beta_8 (\text{number of children under 18}) + \beta_9 (\text{any child less than 1}) + \beta_{10} (\text{any child 1 or 2}) + \beta_{11} (\text{any child 3 or 4}) + \beta_{12} (\text{any child 5 or 6}) + \beta_{13} (\text{any child 7, 8, 9, or 10}) + \beta_{14} (\text{log of other family income}) + \beta_{15} (\text{other adults at home other than parents}) + \beta_{16} (\text{urban}) + \beta_{17} (\text{South}) + \beta_{18} (\text{Midwest}) + \beta_{19} (\text{West}) + \beta_{20} (\text{state unemployment rate}) + \mu)$

Log of CC costs per hour worked =  $\beta_0 + \beta_1 (\text{mother's age}) + \beta_2 (\text{mother has a high school degree}) + \beta_3 (\text{mother has some college}) + \beta_4 (\text{mother has college degree or higher}) + \beta_5 (\text{black}) + \beta_6 (\text{Hispanic}) + \beta_7 (\text{number of children under 18}) + \beta_8 (\text{any child less than 1}) + \beta_9 (\text{any child 1 or 2}) + \beta_{10} (\text{any child 3 or 4}) + \beta_{11} (\text{any child 5 or 6}) + \beta_{12} (\text{any child 7, 8, 9, or 10}) + \beta_{13} (\text{log of other family income}) + \beta_{14} (\text{other adults at home other than parents}) + \beta_{15} (\text{urban}) + \beta_{16} (\text{South}) + \beta_{17} (\text{Midwest}) + \beta_{18} (\text{West}) + \beta_{19} (\text{sample selection correction term } \lambda) + v$

Table 4.7 shows the results for the determinants of the probability of being employed and paying for child care and from the estimation of the cost of child care per hour worked. The probability of being employed and paying for child care increases significantly with higher levels of education, as other family income increases, and when children aged 1 through 10 are present in the household. Higher numbers of children in the household significantly decrease the probability that the mother is employed and paying for child care, as does the presence of other adults other than the parents in the household. This probability decreases with the unemployment rate.

Column 2 of Table 4.7 shows that the estimated child care costs are significantly lower for Blacks and Hispanics than they are for Whites, but they are significantly higher for mothers with children aged 1 through 6. As other family income rises, the cost of child care also rises significantly. Mothers living in urban areas pay more for child care than their rural counterparts. Furthermore, mothers in the South and Midwest pay less for child care. The sample selection correction term,  $\lambda$ , is negative and not statistically significant. Han and Waldfogel's (2001) results also show that the  $\lambda$  for married mothers was not statistically significant.

I use the regression coefficients of the predicted child care costs to impute a market cost of child care per hour worked for each married mother in my SIPP longitudinal sample for each wave that she is in the sample. The mean value of this imputed hourly cost for the married mothers with children in my sample is \$1.86.

**Table 4.7 Results from the Two-Step Child Care Costs Estimation Procedure**

Variable	Probability of Paying for Care		Cost per Hour Worked	
	Coefficient	Standard error	Coefficient	Standard error
Intercept	-1.1437	(0.4420) **	-0.3881	(0.6060)
Age	0.0129	(0.0235)	0.0045	(0.0039)
Age squared	-0.0003	(0.0003)	--	
High school graduate	0.2524	(0.0811) ***	0.0559	(0.1024)
Some college	0.4097	(0.0801) ***	0.0885	(0.1361)
College or more	0.7041	(0.0843) ***	0.2206	(0.2043)
Black	-0.0233	(0.0683)	-0.1641	(0.0523) ***
Hispanic	0.0955	(0.0656)	-0.0997	(0.0529) *
Number of children under 18	-0.1865	(0.0293) ***	0.0288	(0.0565)
Any child less than 1	0.1173	(0.0787)	0.0778	(0.0670)
Any child 1 or 2	0.4959	(0.0527) ***	0.4242	(0.1346) ***
Any child 3 or 4	0.5577	(0.0496) ***	0.3851	(0.1491) **
Any child 5 or 6	0.4042	(0.0477) ***	0.1915	(0.1144) *
Any child 7, 8, 9, or 10	0.3122	(0.0482) ***	0.0334	(0.0959)
Log of other family income	0.0745	(0.0133) ***	0.0515	(0.0231) **
Other adults at home	-0.1643	(0.0363) ***	-0.0694	(0.0557)
Urban	-0.0228	(0.0463)	0.1356	(0.0353) ***
South	0.0428	(0.0563)	-0.1019	(0.0440) **
Midwest	-0.0333	(0.0625)	-0.0964	(0.0427) **
West	0.0683	(0.0601)	-0.0462	(0.0466)
State unemployment rate	-0.0460	(0.0211) **	--	
Inverse Mills Ratio (lamda)	--		-0.0247	(0.4007)
Number of observations	5118		5118	

Standard errors in parentheses.

\* p < .10 \*\* p < .05 \*\*\* p < .001

### **Gender egalitarianism between husband and wife**

I include a measure of the wife's earnings relative to her husband's to examine the labor force patterns of women who are primary providers, women who are equal earners, and women who are married to husband's who are the primary providers. Three dummy variables are created following Nock's (2001) discussion of mutually dependent spouses (MEDS) using the average monthly personal earnings of the four months of the previous wave of both spouses. Equal providers are dual-income couples where wives contribute at least 40% but less than 60% of the total couple earnings (reference group); wife main providers are dual-income couples where the wife contributes 60% or more of the total couple earnings; and husband main providers are dual-income couples where the wife contributes less than 40% of the total couple earnings.

I also create a measure of wife's relative education, with three dummy variables indicating the same education level (reference group), wife has a higher education level, and wife has a lower education level. These dummy variables are constructed using the four educational categories (less than high school, high school, some college, and college graduate). I also constructed a relative hours worked variable, but it was very highly correlated with the wife's work hours so I did not include it in the models.

### **Control variables**

The following variables are used as controls in this estimation. I include a dummy variable indicating minority status to control for non-white race and ethnicity.

Previous research has shown differences in labor force exits of new mothers by race and ethnicity. I also control for age, which was tested several ways. First I tested five categories: 15 to 24, 25 to 34 (reference group), 35 to 44, 45 to 54, and 55 and older, with only the oldest age group showing significance. Next, a continuous variable of age was included. Since I exclude from the analyses the three cases that are continuously retired throughout the time they are in the panel, labor force exits among the oldest age group as an early retirement should not be an issue in this estimation. In the final models, I control for age by including a continuous variable of age.

A dummy variable indicating residence in a metro area was included to control for proximity to large urban metro markets, where more jobs can be found and higher wages are often paid. A change in residence through a move has been well documented as a trigger for a married women's labor force exit. I include a dummy variable indicating whether a move occurred in the previous wave (any of the four months) or the current wave (any of the four months). Several variables were tested as controls in preliminary analyses but then dropped due to consistent lack of significance across several specifications of the models. These variables include season of labor force transition, disability status of the husband, disability status of the wife, and mother's school enrollment.

### **Labor force entrance models**

All of the independent variables used in the labor force entrance models represent the characteristics at the wave prior to the transition, unless otherwise noted.

I include predicted hourly wages and a predicted wife's relative hourly earnings to her husband's hourly earnings in the labor force entrance models.

### **Work related measures**

#### **Market value (potential)**

Fewer market value measures can be included in the labor force entrance model because they are unknown prior to a labor force entrance, such as actual earnings or hours worked. Mothers who do not enter will not demonstrate their actual wages, therefore, I predict hourly wages using the two step sample selection method. In the labor force entrance model, therefore, market value is captured by education level at the previous wave, predicted hourly wages, and cumulative work experience prior to the panel. Education level and previous work experience are operationalized in the manner discussed above in the labor force exit models.

I predict married mothers' hourly wages based on the same method used to predict child care costs outlined above. I use the same data set to predict the hourly wages, namely I select married women with at least one child under 15 from the 1996 SIPP Wave 4 file (collected in the Spring of 1997). Again, I follow Anderson and Levine (2000) and Han and Waldfogel (2001). To determine hourly wages, I divide the monthly earnings by the number of hours the mother works per month (based on the number of hours she works per week multiplied by 4).

I estimate the hourly wages controlling for sample selection bias due to the fact that actual earnings are only observed for women who are employed and being paid for their work. I correct the regression coefficients for sample selection bias

using the standard two-stage technique (Heckman 1979). Thus the selectivity equation estimates the joint decision of a mother to be employed and to receive payment for that work. First I estimate a probit model to predict the probability working for pay (as opposed to not being employed) and then use the results from that probit to control for sample selection bias in the main equation estimating hourly wages. Hourly wages are specified as a function of demographic characteristics thought to influence the decision to work and market characteristics, following Han and Waldfogel (2001) and Anderson and Levine (1999). I identify the probability that a mother is employed and receiving wages by including the square of the mother's age, having a child less than 1, 1 or 2, 3 or 4, 5 or 6, or 7 to 10, the log of other family income, the presence of other adults in the household, and the unemployment rate in the selectivity equation but not in the equation that predicts hourly wages. These variables may influence whether a mother is employed, but once she is employed and earning wages, they should have no effect on her compensation. Following Anderson and Levine (1999) and Han and Waldfogel (2001), I drop the five states that are not separately identified in the SIPP so that I can use the state unemployment rate to control for the tightness of the labor market in the probit.

I estimate the following two models jointly:

$$\text{Probability of working for pay} = \Phi (\beta_0 + \beta_1 (\text{mother's age}) + \beta_2 (\text{mother's age squared}) + \beta_3 (\text{mother has a high school degree}) + \beta_4 (\text{mother has some college}) + \beta_5 (\text{mother has college degree or higher}) + \beta_6 (\text{black}) + \beta_7 (\text{Hispanic}) + \beta_8 (\text{number of children under 18}) + \beta_9 (\text{any child less than 1}) +$$

$\beta_{10}$  (any child 1 or 2) +  $\beta_{11}$  (any child 3 or 4) +  $\beta_{12}$  (any child 5 or 6) +  $\beta_{13}$  (any child 7, 8, 9, or 10) +  $\beta_{14}$  (log of other family income) +  $\beta_{15}$  (other adults at home other than parents) +  $\beta_{16}$  (urban) +  $\beta_{17}$  (South) +  $\beta_{18}$  (Midwest) +  $\beta_{19}$  (West) +  $\beta_{20}$  (state unemployment rate) +  $\mu$ )

Log of hourly wages =  $\beta_0$  +  $\beta_1$  (mother's age) +  $\beta_2$  (mother has a high school degree) +  $\beta_3$  (mother has some college) +  $\beta_4$  (mother has college degree or higher) +  $\beta_5$  (black) +  $\beta_6$  (Hispanic) +  $\beta_7$  (number of children under 18) +  $\beta_8$  (urban) +  $\beta_9$  (South) +  $\beta_{10}$  (Midwest) +  $\beta_{11}$  (West) +  $\beta_{12}$  (sample selection correction term  $\lambda$ ) +  $v$

Table 4.8 shows the results for the determinants of the probability of working for pay and from the estimation of the hourly wages. The probability of a married mother working for pay increases significantly with age and with higher levels of education. This probability decreases as other family income increases, with higher numbers of children, and when preschoolage children are present in the household. Being Black significantly increases the probability of working for pay, and being Hispanic significantly decreases it. Living in the South decreases the probability of working for pay, as does higher levels of unemployment.

**Table 4.8 Results from the Two-Step Wage Estimation Procedure**

Variable	Probability of Working for Pay		Earnings per Hour Worked	
	Coefficient	Standard error	Coefficient	Standard error
Intercept	0.5643	(0.3613)	1.4048	(0.0992) ***
Age	0.0828	(0.0188) ***	0.0108	(0.0016) ***
Age squared	-0.0013	(0.0003) ***	--	
High school graduate	0.5070	(0.0573) ***	0.2665	(0.0500) ***
Some college	0.7438	(0.0585) ***	0.4665	(0.0538) ***
College or more	0.9486	(0.0650) ***	0.8520	(0.0574) ***
Black	0.2394	(0.0665) ***	0.0010	(0.0392)
Hispanic	-0.1176	(0.0525) *	-0.1415	(0.0370) ***
Number of children under 18	-0.1216	(0.0246) ***	-0.0212	(0.0147)
Any child less than 1	-0.3906	(0.0659) ***	--	
Any child 1 or 2	-0.3671	(0.0455) ***	--	
Any child 3 or 4	-0.2404	(0.0426) ***	--	
Any child 5 or 6	-0.2013	(0.0420) ***	--	
Any child 7, 8, 9, or 10	-0.0590	(0.0434)	--	
Log of other family income	-0.1111	(0.0137) ***	--	
Other adults at home	-0.0077	(0.0279)	--	
Urban	-0.0905	(0.0433)	0.1525	0.0265 ***
South	-0.1298	(0.0513) *	-0.1060	0.0312 **
Midwest	-0.0310	(0.0583)	-0.0505	0.0322
West	0.0191	(0.0544)	0.0148	0.0340
State unemployment rate	-0.0911	(0.0198) ***	--	
Inverse Mills Ratio (lamda)	--		0.1608	0.0818
Number of observations	6834		6834	

Standard errors in parentheses.

\* p < .10 \*\* p < .05 \*\*\* p < .001

Column 2 of Table 4.8 shows that the estimated hourly wages are significantly lower for Hispanics than they are for Whites, and are lower for those living in the South. Predicted wages increase significantly with age and education. Mothers living in urban areas earn more per hour than their rural counterparts. The sample selection correction term,  $\lambda$ , is positive and not statistically significant.

I use the regression coefficients of the predicted hourly wages to impute an hourly wage for each married mother in my SIPP longitudinal sample for each wave that she is in the sample. The mean value of this imputed hourly wage for the married mothers with children in my sample is \$12.31.

## **Family related measures**

### **Children and timing of first birth**

Measures indicating the number of children, the age of youngest child, and the age at first birth are operationalized in the same way as they were for the labor force exit models (see discussion above).

### **Family economic situation**

Other monthly family income, whether the husband works overtime hours (65 or more hours per week), and estimated child care costs are included in the labor force entrance models. These variables are constructed in a similar manner as they were in the labor force exit models (see discussion above).

### **Gender egalitarianism between husband and wife**

The same measure of wife's relative education is included in the labor force entrance model as operationalized for the labor force exits models (see discussion above). I calculate a predicted relative earnings measure based on the wife's estimated hourly wages related to her husband's actual hourly wages in the month prior to the labor force entrance. In some families where the wife is not employed, wives and husbands may have similar education levels. If this is the case, these wives may have the potential to be equal earners with their husbands, which may be reflected in the predicted relative earnings measure.

Table 4.9 shows how the estimated wife's relative earnings compare with the actual relative earnings using unweighted person-wave data for employed married mothers. Predicted hourly wages are lower than the actual hourly wages by roughly one dollar (actual hourly wages are \$13.46 and predicted are \$12.31). Column 1 in Table 4.9 shows the wife's relative earnings to her husband using both spouses' actual monthly earnings, a measure of the actual monetary contribution of each spouse. Fifty-two percent of married mothers earn less than 40 percent of the total couple's earnings, rendering their husband as primary provider. Roughly 32 percent are equal providers and 17 percent of married mothers earn more than 60 percent of the total couple earnings, rendering them primary provider. In Column 2, we see wife's relative earnings using both spouses' actual hourly wages, a measure of actual monetary contributions per hour worked. This measure shows an increase in the percent of married mothers who are equal (38 percent) and primary (21 percent) earners, suggesting that some wives earn more per hour than their husbands, but work

part-time hours, thus their total earnings are lower than their husbands. Finally, Column 3 presents wife's relative earnings using the predicted wife's hourly wages and the actual husband's hourly wages. This measure predicts a similar percentage of wives to be the primary earner as the actual hourly wages did (21 percent), however the percentage of husbands as primary provider drops to 34 percent and the percentage of equal earners rises to 45 percent. This is likely due to the small range of predicted values for wages (min is \$4.44 and max is \$24.55) compared with the range for actual values for wages (min is \$0.01 and max is \$1,072.75).

**Table 4.9 Comparison of Estimated Wife's Relative Earnings and Actual Wife's Relative Earnings Among Employed Married Mothers with Children Under 15**

	<b>Actual earnings per month</b>	<b>Actual earnings per hour</b>	<b>Predicted wages per hour</b>
Number of person waves	51,150	51,150	51,150
Mean hourly wage	NA	\$13.46	\$12.31
<b>Wife's Relative Earnings (percent)</b>			
Husband primary provider	51.5	40.5	34.3
Equal providers	31.7	38.1	45.0
Wife primary provider	16.8	21.4	20.7

Source: 1996 SIPP Panel. Unit of analysis is person wave.

### **Control variables**

The control variables included in the labor force entrance models are operationalized in the same manner as the control variables included in the labor force exit models described above. These variables include minority status, age, metro residence, and a move in the previous or current wave.

## Methods

This dissertation relies on discrete-time event history analysis to predict labor force transitions for married mothers. This method is described below.

### **Discrete-time hazard models**

To study transition rates, I use discrete-time hazard models and the person-wave data file. Events are defined in terms of a qualitative change that occurs at a specific point in time, a disjunction between what precedes and what follows (Allison 1984). This requires that I divide the observation period into several discrete intervals and create a separate unit of analysis for each interval. In my case, the interval is every four months and coincides with an interview wave. Thus, I create an observation for each wave for each individual and the unit of analysis is the woman-wave. This allows the baseline hazard rate to vary within the duration of a spell without having to specify the exact hazard-rate path (Drobnic, Blossfeld, and Rohwer 1999). Dividing the unit into discrete intervals assumes that the transition rate is constant within the intervals but can change between them.

For the analysis of labor force exits, a record is produced for each person-wave of exposure to the risk of entry. For example, if a mother leaves the labor force in wave 6, six records will be produced. In the first 5, the dependent outcome is coded zero (i.e. no labor force exit). In the sixth, the dependent outcome is coded one (labor force exit). In the example above, the dependent variable has a lagged effect,

with wave 5 independent variables predicting a change in labor force status from wave 5 to 6. Each record, in addition to containing the dependent outcome, also contains fixed covariates (independent variables that do not vary over the life of the panel), like race and gender, as well as time-varying covariates, like age, income, and household composition, set to the values observed at the end of the previous wave. The analysis of labor force entrances follows the same methodology as the labor force exits, however now the dependent outcome is coded one when a labor force entrance occurs.

Discrete-time hazard models have two major advantages over other types of regression techniques. First, these models allow the independent variables to change over time, variables such as age, income, or household composition. Research has shown that this leads to less bias in the estimates (Allison 1982). Another advantage of discrete-time hazard models is that they allow the inclusion of censored observations (that is, married mothers who have not exited the labor force at the end of the survey (Gupta and Leite 1999)).

The model is essentially a logistic regression, with the dependent variable measuring the occurrence of a married mother with children under 15 who experience a labor force transition. Specifically, the transition being measured at each wave is a labor force exit or labor force entrance. The ratios represent the increased (or decreased) odds of experiencing a labor force transition for each wave. The statistical model to be used in this analysis chapter is shown in equation 4-1 (adapted from Allison 1984, pages 88-89).

$$ML = \prod_{i=1}^n \frac{\exp(\alpha_{ji} + \beta_j \mathbf{x}_{ti})}{1 + \sum_{j=1}^{J-1} [\exp(\alpha_{ti} + \beta_{ti})]} * \prod_{k=1}^{ki} (1 - P_k) \text{ Equation 4-1.}$$

$$1 - \frac{\exp(\alpha_{ti} + \beta \mathbf{x}_{ti})}{1 + \sum_{j=1}^{J-1} [\exp(\alpha_{ti} + \beta \mathbf{x}_{ti})]}$$

Equation 4-1 gives the probability that a given response category (j) is observed at time t, where  $\mathbf{x}$  = vector of independent variables, some of which are time-varying and others are time-invariant,  $\beta$  = vector of coefficients for employment transition path j, J = number of transition paths (response categories for the dependent variable).  $\prod_{i=1}^n$  shows that the estimates are aggregated over time (indicated by “i” beginning in the first unit of time (in my case waves) and going to n, the last unit of time), yielding coefficients that show the cumulative effect of the variables in the  $\beta$  vector.  $\prod_{k=1}^{ki} (1 - P_k)$  is a survival probability. In the case where J = 2 (two response categories), equation 4-1 simplifies to the binary logistic regression function. In sum, Equation 4-1 states that the probability that event j occurred in time t, divided by the probability that no event has occurred by time t, multiplied by the probability of surviving to time t yields the Maximum Likelihood (ML) function for multiple events over time.

Step-wise analyses are conducted to show the mediating effects of clusters of variables. Interactions are then introduced to explain variations in a more in-depth manner. Multinomial event history analyses are run to predict the determinants of labor force exits for full-time mothering reasons or for other reasons and to predict the determinants of labor force entrances from full-time mothering reasons or from other reasons. The models are run predicting determinants of the first labor force exit as well as for the first labor force entrance. The following equations are estimated for the first labor force exit and the first labor force entrance.

#### **Equation for exits**

Probability of a labor force exit =  $\beta_0 + \beta_1$  (less than HS) +  $\beta_2$  (some college) +  $\beta_3$  (college degree or higher) +  $\beta_4$  (part time) +  $\beta_5$  (log of earnings) +  $\beta_6$  (LF break for 6+ months for 1 to 2 years) +  $\beta_7$  (LF break for 6+ months for 3 or more years) +  $\beta_8$  (manager or professional) +  $\beta_9$  (private not for profit sector) +  $\beta_{10}$  (government worker) +  $\beta_{11}$  (self employed) +  $\beta_{12}$  (health insurance through current job) +  $\beta_{13}$  (no health insurance) +  $\beta_{14}$  (log of other family income) +  $\beta_{15}$  (husband works 65 or more hours per week) +  $\beta_{16}$  (log of estimated child care costs) +  $B_{17}$  (two children) +  $B_{18}$  (three or more children) +  $\beta_{19}$  (youngest child less than 1) +  $\beta_{20}$  (youngest child 1 or 2) +  $\beta_{21}$  (youngest child 3 to 5) +  $\beta_{22}$  (birth in previous or current wave) +  $\beta_{23}$  (older child enters household in previous or current wave) +  $\beta_{24}$  (young first birth) +  $\beta_{25}$  (old first birth) +  $\beta_{26}$  (missing first birth data) +  $\beta_{27}$  (husband works 65 or more hours per week) +  $\beta_{28}$  (husband primary provider) +  $\beta_{29}$  (wife primary provider) +

$\beta_{30}$  (wife lower education) +  $\beta_{31}$  (wife higher education) +  $\beta_{32}$  (minority) +  $\beta_{33}$  (age) +  $\beta_{34}$  (metro) +  $\beta_{35}$  (move in previous or current wave)

### **Equation for entrances**

Probability of a labor force entrance =  $\beta_0$  +  $\beta_1$  (less than HS) +  $\beta_2$  (some college) +  $\beta_3$  (college degree or higher) +  $\beta_4$  (predicted hourly wages) +  $\beta_5$  (LF break for 6+ months for 1 to 2 years) +  $\beta_6$  (LF break for 6+ months for 3 or more years) +  $\beta_7$  (log of other family income) +  $\beta_8$  (husband works 65 or more hours per week) +  $\beta_9$  (log of estimated child care costs) +  $B_{10}$  (two children) +  $B_{11}$  (three or more children) +  $\beta_{12}$  (youngest child less than 1) +  $\beta_{13}$  (youngest child 1 or 2) +  $\beta_{14}$  (youngest child 3 to 5) +  $\beta_{15}$  (birth in previous or current wave) +  $\beta_{16}$  (older child enters household in previous or current wave) +  $\beta_{17}$  (young first birth) +  $\beta_{18}$  (old first birth) +  $\beta_{19}$  (missing first birth data) +  $\beta_{20}$  (husband primary provider) +  $\beta_{21}$  (wife primary provider) +  $\beta_{22}$  (wife lower education) +  $\beta_{23}$  (wife higher education) +  $\beta_{24}$  (minority) +  $\beta_{25}$  (age) +  $\beta_{26}$  (metro) +  $\beta_{27}$  (move in previous or current wave)

### Summary

The proposed analyses will go beyond prior studies of mother's labor force exits and entrances in several ways. First, these analyses will include the transitions of all married mothers with children under 15, rather than just those with a first birth or a new child in the family. As such, a more definitive look at the complexity of

labor force transitions and family decision making in general will be conducted. Second, the wide array of variables measuring a variety of aspects of the family decision-making process enables a broad examination of the determinants of married mothers' labor force participation. Third, by making a first foray into a new definition of the full-time mother family with respect to the main reason for nonemployment and looking at transitions into and out of this family state, the standard approach to looking at women's labor force exits and entrances will be examined with an eye for improvement and clarification. Thus, these analyses will answer some questions left unanswered in the existing literature by providing a broad assessment of what factors influence the decision to either exit or enter the labor force, as well as provide insight into the possible implications of that labor force transition in terms of gender equality in the work place and the home.

## **Chapter 5: Determinants of Labor Force Exits**

This chapter examines labor force exits of married mothers with children under 15 using discrete-time event history analysis. This chapter proceeds as follows: As a first step, I examine descriptive statistics for the sample as a whole comparing married mothers with children under 15 at wave 1 by their employment status at wave 1. This comparison provides a backdrop from which to understand labor force exits—the principal focus of this chapter. I then examine descriptive statistics of the sample of married mothers who were employed at wave 1 by their subsequent labor force participation pattern during the panel. Next, using step-wise analysis, I build a discrete-time event history regression model predicting the first labor force exit during the panel controlling for married mothers' work and family related characteristics, and demographic controls. Interactions are then tested to query specific variables further and to gain a better understanding of the results. After that, a multinomial regression is run to see whether the predictors of labor force exits vary by the reason for the exit. The chapter concludes with a summary of key findings.

### *Labor force participation: Married mothers with children*

#### **Wave 1 sample characteristics**

Table 5.1 presents the weighted characteristics of all married mothers with children at wave 1 of the 1996 SIPP Panel by their employment status at wave 1. I restrict the analysis sample to those present in wave 1 because several of the variables

that measure the mother's labor force continuity and work experience are asked in the work history topical module administered in wave 1 of the panel. Married mothers who are employed in wave 1 are at risk of a labor force exit in subsequent waves. Comparing employed and nonemployed mothers at wave 1 can shed light on the measures that might play a role in labor force exits.

Looking at Table 5.1, we see higher educational attainment among the employed mothers, with 28 percent graduating from college and 8 percent holding a master's degree or higher while only 18 percent of the nonemployed mothers graduated from college and 4 percent hold a master's degree or higher. Under half (43 percent) of all married mothers with children under 15 have had a break in the labor force for 6 or more months specifically for care-giving prior to the start of the panel. The percentage is higher for nonemployed mothers (65 percent) than employed mothers (33 percent).<sup>8</sup> Employed mothers in wave 1 who took a break from the labor force at some point to care for children and/or family, tend on average to spend a shorter number of cumulative years away from the labor force for 6 or more months (7.2 years compared with 9.3 years, respectively).

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<sup>8</sup> Note that this variable measures breaks in the labor force for 6 or more months specifically for care-giving prior to the start of the panel. While married mothers may have taken breaks in the labor force for 6 or more months for other reasons (school, health reasons, etc.), those breaks would not be included in this measure.

**Table 5.1 Weighted Comparison of Married Mothers with Children under 15 in Wave 1 by Employment Status in Wave 1**

<b>Characteristics at Wave 1</b>	<b>All women</b>	<b>Employed<sup>a</sup> in Wave 1</b>	<b>Not employed<sup>a</sup> in Wave 1</b>
Number (in thousands)	22,988	15,868	7,120
<b>WORK RELATED VARIABLES</b>			
<b>MOTHER'S MARKET CHARACTERISTICS</b>			
Education level			
Less than high school	12.5	8.0 *	22.4
High school degree	31.1	30.0 *	33.5
Some college	31.4	33.9 *	26.0
College graduate	25.0	28.1 *	18.2
Master's degree or higher	6.5	7.7 *	3.9
Labor force continuity			
Break in LF for caregiving 6+months <sup>1</sup>	43.2	33.3 *	65.2
No break in LF for caregiving	56.8	66.7 *	34.8
1 to 2 yrs with 6+ month break	8.9	8.9 *	9.0
3 to 5 yrs with 6+ month break	11.6	9.8 *	15.5
6 to 10 yrs with 6+ month break	10.7	7.0 *	18.9
11 or more yrs with 6+ month break	12.0	7.7 *	21.8
Mean number of years 6+ month break	8.2	7.2 *	9.3
<b>FAMILY RELATED VARIABLES</b>			
<b>CHILDREN</b>			
Number of children			
One	39.0	42.1 *	32.0
Two	40.2	40.9	38.6
Three or more	20.8	17.0 *	29.4
Mean number of children	1.9	1.8 *	2.1
Age of youngest child			
Less than 1	16.4	14.7 *	20.4
1 to 2	19.5	17.7 *	23.7
3 to 5	21.4	21.1	22.3
6 to 9	21.4	23.0 *	17.8
10 to 14	21.2	23.6 *	15.9
Mean age youngest child	5.2	5.6 *	4.4
Birth during panel			
Yes	18.0	17.2 *	19.8
<b>TIMING OF LIFE EVENTS</b>			
Age at first birth			
Younger, under 22	29.9	28.5 *	33.4
On-time, 23-28	31.1	29.5 *	34.9
Older, 29 and over	41.5	43.1 *	38.0
Missing	19.3	19.6	18.7

**TABLE 5.1 CONTINUED**

Characteristics at Wave 1	All women	Employed in wave 1	Not employed in wave 1
<b>FAMILY ECONOMICS</b>			
Monthly other family income <sup>2</sup>			
Less than \$1,500	21.3	20.2 *	23.9
\$1,500 - \$2,999	33.6	35.3 *	30.1
\$3,000 - \$4,499	22.8	24.5 *	18.9
\$4,500 or more	22.3	20.0 *	27.2
Mean monthly family income	\$3,358	\$3,375 *	\$3,901
Husband's work hours			
Husband works 65+ hours per week	11.3	11.2	11.6
Predicted market cost of child care			
Mean amount for child care	\$1.84	\$1.80 *	\$1.94
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>			
Relative monthly earnings <sup>3</sup>			
Husband primary provider	65.4	54.7 *	89.4
Equal providers	19.3	27.9 *	0.0
Wife primary provider	12.0	17.4 *	0.0
No family income	3.3	0.0 *	10.6
Relative education level <sup>4</sup>			
Husband higher education	24.1	21.8 *	29.3
Equal education	53.6	53.5	54.0
Wife higher education	22.2	24.7 *	16.7
<b>CONTROLS</b>			
Minority	25.5	23.0 *	31.0
Age			
15 to 24	7.3	5.9 *	10.3
25 to 29	15.0	14.5	16.0
30 to 34	23.9	24.5	22.7
35 to 39	25.4	25.8	24.6
40 to 44	17.5	18.8 *	14.5
45 to 60	11.0	10.5	12.0
Average age	35.4	35.6 *	34.9
Metro residence	77.3	76.9	78.0
Move during panel	28.5	27.0 *	32.1
Average number of waves in panel	10.3	10.3	10.2
<b>N</b>	<b>8,316</b>	<b>5,696</b>	<b>2,620</b>

Source: 1996 SIPP Panel. Unit of analysis is married mother with children under 15 at wave 1.

<sup>a</sup> Employed is defined as having a paid job and positive earnings.

<sup>1</sup> Includes only labor force breaks for 6 or more months prior to the start of the panel (ie., Wave 1).

<sup>2</sup> Excludes mother's earnings.

### TABLE 5.1 CONTINUED

<sup>3</sup>This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

<sup>4</sup>This measure is calculated using four education categories (less than high school, high school degree, some college, and college degree) and comparing the wife's education with the husband's.

\* statistically significant difference between employed and not employed at the 90 percent confidence interval.

Employed mothers tend to have on average fewer and older children than nonemployed mothers. A lower proportion experienced a birth of a child during the panel and a higher proportion of mothers employed at wave 1 began child bearing at older ages (after age 28) than those not employed at wave 1. Families with an employed mother have lower average incomes, other than the mother's earnings, than families where the mother is not employed. Married mothers employed at wave 1 have lower predicted child care costs than their nonemployed counterparts. A greater proportion of employed mothers are better educated than their husbands compared with nonemployed mothers.

A lower proportion of employed mothers are a minority, and they tend to be older than their nonemployed counterparts. Mothers employed at wave 1 were less likely to experience a move during the panel than those nonemployed at wave 1.

#### Labor force exits: Married mothers with children

Table 5.2 provides descriptive statistics of those employed at wave 1 depending on their subsequent labor force participation in the panel. Table 5.2

presents weighted characteristics at wave 1 for those who are employed for the entire panel and those who are employed at wave 1 but then exit the labor force sometime during the panel.

### **Work related variables**

Those who exit the labor force clearly have lower human capital and labor force continuity prior to their labor force exit than those who remain employed throughout the panel. Mothers who exit the labor force have a lower education level, are more likely to work part-time hours, and earn much less per month than those who do not exit. In fact, almost three fourths of the mothers that exit earn less than \$1,500 per month, some of which is likely due to the large concentration of part-time workers in this group. One quarter of the mothers who exit the labor force experienced a previous labor force break of 6 or more months for care-giving and on average they have had 8 years where they did not work 6 or more months. Taken altogether, mothers who exit the labor force during the panel appear to have less cumulative previous work experience and work commitment than mothers who remain employed throughout the panel.

**TABLE 5.2 Weighted Comparison of Employed Married Women with Children in Wave 1 by Labor Force Participation During the Panel**

Characteristics at Wave 1	EMPLOYED AT WAVE 1	
	Employed entire time during panel	Exit labor force during panel
Number (in thousands)	11,907	3,181
<b>WORK RELATED VARIABLES</b>		
<b>MOTHER'S MARKET CHARACTERISTICS</b>		
Education level		
Less than high school	6.1 *	13.3
High school degree	29.8	30.5
Some college	33.7	34.2
College graduate	30.4 *	22.1
Master's degree or higher	8.9 *	4.5
Hours worked		
Part-time	29.7 *	48.2
Full-time	70.3 *	51.8
Monthly personal earnings		
Less than \$1,500	46.8 *	68.5
\$1,500 - \$2,999	36.3 *	21.9
\$3,000 - \$4,499	11.8 *	6.6
\$4,500 or more	5.1 *	3.0
Average earnings	\$1,970 *	\$1,346
Labor force continuity		
Break in LF for caregiving 6+months <sup>1</sup>	31.8 *	27.1
No break if LF for caregiving	68.2 *	62.9
1 to 2 yrs with 6+ month break	9.3	7.8
3 to 5 yrs with 6+ month break	8.8 *	12.5
6 to 10 yrs with 6+ month break	6.7	7.7
11 or more yrs with 6+ month break	7.0	9.1
Mean number of years	7.0	7.5
<b>JOB CHARACTERISTICS</b>		
Occupation		
Managerial/Professional	36.5 *	24.6
Service	14.2 *	23.3
Technical/Sales/Office	39.6	38.7
Production/Craft/Repair	2.2	2.9
Operator/Fab/Laborer	6.7 *	9.0
Farm/Forest/Fish	0.7	1.5
Missing	0.1	0.0
Class of worker		
Private for profit	60.3 *	66.8
Private not for profit	10.8 *	7.5
Government worker	20.5 *	11.9
Own business	8.4 *	13.8

**TABLE 5.2 CONTINUED**

<b>Characteristics at Wave 1</b>	<b>EMPLOYED AT WAVE 1</b>	
	<b>Employed entire time during panel</b>	<b>Exit labor force during panel</b>
Health insurance		
Health insurance through husband/other	52.2 *	64.0
Health insurance through current job	41.9 *	19.9
No health insurance	5.9 *	16.1
<b>FAMILY RELATED VARIABLES</b>		
<b>CHILDREN</b>		
Number of children		
One	42.9	40.3
Two	41.0	41.1
Three or more	16.2	18.6
Mean number of children	1.8	1.9
Age of youngest child		
Less than 1	12.9 *	19.5
1 to 2	16.7 *	19.8
3 to 5	20.6	23.3
6 to 9	23.9 *	20.5
10 to 14	25.9 *	16.9
Mean age youngest child	5.9 *	4.8
Birth during panel		
Yes	13.5 *	27.8
<b>TIMING OF LIFE EVENTS</b>		
Age at first birth		
Younger, under 22	27.9 *	33.2
On-time, 23-28	44.4	40.7
Older, 29 and over	20.4	17.5
Missing	7.3	8.6
<b>FAMILY ECONOMICS</b>		
Other family income		
Less than \$1,500	18.6 *	23.7
\$1,500 - \$2,999	36.0	33.8
\$3,000 - \$4,499	25.3	23.0
\$4,500 or more	20.2	19.6
Mean family income	\$3,396	\$3,319
Husband's work hours		
Husband works 65+ hours per week	10.7	11.9
Child care cost		
Mean amount paid for child care	\$1.80	\$1.81

**TABLE 5.2 CONTINUED**

<b>Characteristics at Wave 1</b>	<b>EMPLOYED AT WAVE 1</b>	
	<b>Employed entire time during panel</b>	<b>Exit labor force during panel</b>
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>		
Relative monthly earnings <sup>3</sup>		
Husband primary provider	50.6 *	65.5
Equal providers	31.4 *	18.6
Wife primary provider	18.0	15.9
Relative education level <sup>4</sup>		
Husband higher education	20.4 *	26.3
Equal education	53.8	52.2
Wife higher education	25.8 *	21.6
<b>CONTROLS</b>		
Minority	22.0 *	25.7
Age		
15 to 24	5.0 *	7.4
25 to 29	12.2 *	21.3
30 to 34	24.1	25.5
35 to 39	27.5 *	20.7
40 to 44	20.2 *	15.4
45 to 60	11.0	9.6
Average age	36.1 *	34.5
Metro residence	77.2	76.2
Move during panel	22.8 *	37.3
Average number of waves in panel	10.1 *	10.9
<b>N</b>	<b>4,259</b>	<b>1,152</b>

Source: 1996 SIPP Panel. Unit of analysis is married mother with children under 15 at wave 1.

<sup>a</sup> Employed is defined as having a paid job and positive earnings.

<sup>1</sup> Includes only labor force breaks for 6 or more months prior to the start of the panel (ie., Wave 1).

<sup>2</sup> Excludes mother's earnings.

<sup>3</sup> This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

<sup>4</sup> This measure is calculated using four education categories (less than high school, high school degree, some college, and college degree) and comparing the wife's education with the husband's.

\* statistically significant difference between employed and not employed at the 90 percent confidence interval.

Some jobs are easier to balance with parenting, as they encompass qualities such as flexibility, set hours and schedules, and do not require overtime (Glass 1988; Hofferth 1996). A higher proportion of mothers who are employed throughout the panel are managers or professionals, compared with mothers who exit during the panel. However, a larger proportion of mothers who exit are employed in a service occupation. Although a majority of both groups of mothers work for a private, for profit company, a larger proportion of mothers who exit the labor force worked in that sector. A larger proportion of mothers who remain employed throughout the panel are employed in the private, not for profit sector, work in the government or are self employed in their own business, sectors that are potentially more flexible and less time intensive, than the private, for profit sector. More than four in ten of mothers who remain employed throughout the panel receive health insurance through their job, while half as many, two in ten of the mothers who exit the labor force receive this job benefit.

### **Family related variables**

While these two groups of women have roughly the same number of children, a greater proportion of mothers who exit have very young children. In fact, about 20 percent have a child under one year old compared with only 13 percent of the mothers who remain employed for the entire panel. Twice as many mothers who exit the labor force during the panel experience a birth during the panel compared with mothers who remain employed throughout the panel (28 percent compared with 14 percent).

A higher proportion of mothers who exit the labor force began family building at an early age (33 percent began childbearing before age 23) compared with those who remain employed (28 percent). Similar proportions of mothers who exit the labor force began family building at a late age (after 28 years).

These two groups of mothers have generally comparable other family income (not including the wife's earnings), although a higher proportion of mothers who exit the labor force live in families with less than \$1,500 per month generated from other family income than those mothers who remain employed. A similar percentage of mothers in both groups are married to men who work long overtime hours (roughly 10 percent). The estimated market cost of child care is similar for both groups of married mothers.

Mothers who exit the labor force at some point in the panel appear to live in families where the husband is the primary earner in wave 1 more frequently than those who remain employed (66 percent compared with 51 percent). On the other hand, mothers who remain employed are more likely to share equally in the economic provider role with their husbands than those who exit (31 percent compared with 19 percent). The proportions of married employed mothers who are the primary provider at wave 1 are not statistically different depending on their subsequent labor force participation. Descriptive statistics suggest that married mothers exit the labor force when they earn less than their husband, supporting the notion advanced by neoclassical economic theory that the spouse with the greater market comparative advantage remains the primary provider. But these statistics in Table 5.2 do not reveal a clear relationship when the wife outearns her husband, if anything they imply that

there would not be a difference between mothers who outearn their husbands regarding labor force exits. Results from a bivariate regression of labor force exits on wife's relative earnings suggest a counter-intuitive relationship between labor force exits and wife's who are the primary provider (see Appendix Table 5.A). Here, we see that wives who outearn their husbands are more likely to exit the labor force compared with wives who are equal providers. Bivariate results also show that married mothers with husbands who are the primary provider are more likely to exit the labor force, again compared with wives who are equal providers.

A slightly higher proportion of mothers who exit are minorities, and they tend to be younger than mothers who remain employed throughout the panel. A higher proportion of those who exit the labor force during the panel also experience a move during the panel, than those who remain continuously employed throughout the panel.

#### *Event History Analysis Models Predicting Labor Force Exits*

Recall that the event history analyses use a sample of person waves of married mothers. Table 5.3 presents the total sample at risk for a labor force exit and the dependent variable, the first labor force exit, to be used in the analyses of labor force exits. Table 5.3 shows that there are 51,150 waves where a married mother is employed, or at risk of a labor force exit during the SIPP panel, and in 1,848 waves a married mother exits the labor force. In 1,432 waves, married mothers exit for full-time motherhood reasons and in 416 waves, they exit for other reasons.

**Table 5.3 Labor Force Exit Dependent Variables**

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	<b>Labor force exits sample</b>
<b>Total sample size, person-waves</b>	<b>51,150</b>
<b>Dependent variables</b>	
<b>Labor force exits</b>	
First labor force exit	1,848
For motherhood reasons	1,432
For other reasons	416

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Source: 1996 SIPP Panel. Unit of analysis is person-wave.

### **Step-wise analyses**

Table 5.4 shows a series of four event history regression models predicting whether a married mother exits the labor force during the panel. Model 1 predicts the effect of wife's relative earnings and wife's relative education on labor force exits, Model 2 adds work related variables, Model 3 adds family related variables, and Model 4 adds demographic controls. This analytical strategy allows the effect of wife's relative earnings and education to change as other co-variables are added to the model.

The results from Model 1 show that wives exit the labor force when their husband has the comparative market advantage compared with wives who are equal earners, supporting neoclassical economic theory. Model 1 also shows that wives exit when they have the comparative market advantage compared with wives who are equal earners, contrary to neoclassical economic theory but in line with the hypothesized relationship offered by the gender perspective.<sup>9</sup> The effect of relative

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<sup>9</sup> A correlation matrix revealed that several variables have correlations of 0.450 or higher, significant at the 0.05 level. These include husband primary provider and some college (-0.452); wife primary

education is in line with neoclassical economic theory—we see a higher propensity for labor force exits among wives with lower educational attainment than their husbands and a lower propensity among those with higher educational attainment than their husbands.

Model 2 adds the human capital and work related variables. The effect of a wife being the primary provider is reduced, yet the relationship remains positive and statistically significant. Similarly, the effect of the husband being the primary provider is also reduced, but remains positive and statistically significant. However, the effect of wife's relative education on labor force exits is mediated by the other covariates in the model. With the addition of the work related variables in Model 2, the effect of wife's relative education is removed and lessened. Several of the work related variables are correlated with labor force exits, and the direction of the effect of the variables is consistent with previous research. Having less than a high school education increases the odds that a married mother exits the labor force, as does having a college degree. In Model 2, working part-time hours is negatively associated with labor force exits. Higher mothers' personal earnings reduce the likelihood of a labor force exit. Married mothers who have had several labor force breaks of 6 or more months prior to the start of the panel are more likely to exit the labor force.

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provider and other income less than \$1,500 per month (0.455); age and youngest child between 6 and 14 (0.457); equal provider and log of earnings (-0.476); husband primary provider and log of earnings (-0.487); manager/professional and college graduate (0.498); log of child care costs and youngest child 1 to 2 (0.524); wife primary provider and log of other family income (-0.525); and log of child care costs and youngest child 6 to 14 (-0.632).

**Table 5.4 Step-Wise Event History Analysis Predicting Labor Force Exit Among Married Mothers with Children Under 15**

	Model 1	Model 2	Model 3	Model 4
Parameter	Coefficient	Coefficient	Coefficient	Coefficient
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>				
Relative monthly earnings <sup>1</sup>				
Husband primary provider	0.805 ***	0.211 **	0.288 ***	0.290 ***
Equal providers	R	R	R	R
Wife primary provider	0.416 ***	0.351 ***	0.217 **	0.298 ***
Relative education level <sup>2</sup>				
Husband higher education	0.130 ***	0.009	-0.011	-0.008
Equal education	R	R	R	R
Wife higher education	-0.117 ***	-0.056	-0.079 *	-0.098
<b>WORK RELATED VARIABLES</b>				
<b>MOTHER'S MARKET CHARACTERISTICS</b>				
Education level				
Less than high school		0.322 ***	0.386 ***	0.363 ***
High school degree		R	R	R
Some college		0.019	-0.047	-0.058
College graduate		0.143 *	-0.059	-0.070
Hours worked				
Part-time		-0.086 *	-0.101	-0.082
Full-time		R	R	R
Monthly personal earnings				
Log of personal earnings		-0.442 ***	-0.441 ***	-0.451 ***
Labor force continuity				
Break in LF for caregiving 6+months <sup>3</sup>				
No break in LF for caregiving		R	R	R
1 to 2 yrs with 6+ month break		-0.084	-0.068	-0.080
3 or more yrs with 6+ month break		0.076 *	0.208 ***	0.260 ***

**Table 5.4 CONTINUED**

	Model 1	Model 2	Model 3	Model 4
Parameter	Coefficient	Coefficient	Coefficient	Coefficient
<b>JOB CHARACTERISTICS</b>				
Occupation				
Managerial/Professional		-0.088	-0.092	-0.094
Class of worker				
Private for profit		R	R	R
Private not for profit		-0.397 ***	-0.392 ***	-0.373 ***
Government worker		-0.412 ***	-0.382 ***	-0.380 ***
Own business		-0.141 *	-0.161 **	-0.133 *
Health insurance				
Health insurance through husband (or other)		R	R	R
Health insurance through current job		-0.922 ***	-1.081 ***	-1.133 ***
No health insurance		0.318 ***	0.275 ***	0.208 ***
<b>FAMILY RELATED VARIABLES</b>				
<b>CHILDREN</b>				
Number of children				
One			R	R
Two			-0.192 ***	-0.217 ***
Three or more			-0.197 ***	-0.219 ***
Age of youngest child				
Less than 1			0.764 ***	0.600 **
1 to 2			0.068	-0.144 **
3 to 5			0.008	-0.139
6 to 14			R	R
Child enters household in previous or current wave				
New baby			0.454 *	0.402 *
Older child enters			0.585	0.528

**Table 5.4 CONTINUED**

	Model 1	Model 2	Model 3	Model 4
Parameter	Coefficient	Coefficient	Coefficient	Coefficient
<b>TIMING OF LIFE EVENT</b>				
Age at first birth				
Younger, under 22			0.028	-0.011
On-time, 23-28			R	R
Older, 29 and over			0.176 ***	0.258 ***
Missing			0.359 ***	0.261 **
<b>FAMILY ECONOMICS</b>				
Other family income <sup>4</sup>				
Log of other family income			-0.096 ***	-0.085 ***
Husband's work hours				
Husband works 65+ hours per week			0.316 ***	0.313 ***
Child care costs				
Log of predicted child care costs			0.424 ***	0.557 ***
<b>DEMOGRAPHIC CONTROLS</b>				
Race and ethnicity				
Minority				0.233 ***
White, not Hispanic				R
Age				
Continuous variable of age				-0.018 ***
Residence				
Metro residence				0.016
Move				
Move in previous or current wave				0.519 ***
Intercept	-3.520 ***	0.076	0.281	0.730 ***
-2 Log Likelihood	15,654.422	14,483.859	14,184.382	14,107.980
X <sup>2</sup>	302.603	1,473.166	1,772.643	1,849.044
Degrees of freedom	4	17	30	34
Number of observations	51,150	51,150	51,150	51,150

**Table 5.4 CONTINUED**

Source: 1996 SIPP Panel. Unit of analysis is person-wave. p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001 R: Reference group

<sup>1</sup>This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

<sup>2</sup>This measure is calculated using four education categories (less than high school, high school graduate, some college, and college graduate) and comparing the wife's education with the husband's.

<sup>3</sup>Includes only labor force breaks for 6 or more months prior to the start of the panel (ie., Wave 1).

<sup>4</sup>Excludes mother's earnings.

A married mother's occupation is not significantly related to labor force exits, however, the sector that she works in is. Married mothers who work in the private, not for profit sector, are government employees, or are self-employed are all less likely to exit the labor force than mothers working in the private, for profit sector. Having health insurance through the current job reduces the odds of a labor force exit, while having no health insurance increases the odds. Virtually all the work related variables that exhibited a bivariate relationship noted in Table 5.2 remain statistically significant predictors at the time of a labor force exit.

In Model 3, the family related variables are added. The effect of a husband being the primary provider and the effect of the wife being the primary provider remains statistically significant—both are positive predictors of married mothers' labor force exits. With the introduction of family related variables, the effect of having a college degree and the effect of working part-time are no longer significant predictors of married mothers' labor force exits.<sup>10</sup>

Mothers with a youngest child under the age of 1 or those with the recent addition of a new baby face higher odds of a labor force exit. The effect of higher numbers of children is negative.<sup>11</sup> The coefficient for delayed child bearing shows a significant and positive relationship to labor force exits. Recall that neoclassical

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<sup>10</sup> Appendix Table 5.A shows that in a bivariate model, married mothers working part-time hours have a higher propensity to exit the labor force than married mothers working full-time hours. Furthermore, in a separate full model (not shown) working part-time is a significant and positive predictor of married mother's labor force exits when the mother's earnings are included as three dummy variables rather than as a continuous logged variable.

<sup>11</sup> Although I expected mothers with higher numbers of children to be more likely to exit the labor force, Klerman and Leibowitz (1999) found that mothers self select at the birth of their first child into homemakers and paid workers. They found that mothers who are employed after their first birth, also are employed after their second, and their third. Because my sample includes all mothers, not just first-time mothers or new mothers, the negative effect of a higher number of children on mother's labor force exits is not surprising.

economic theory suggests that mothers who delay child bearing invest in their education and build stronger ties to the labor force. As such, the effect of delayed child bearing should be negative under this theoretical stream. On the other hand, the life course perspective allows for differential impacts on labor force participation depending on the age at first birth. Women who have built the foundation of their careers may be able to take time off from the labor force without suffering downward mobility in the future. This relationship is curious and is explored in further detail below.

The effect of family income, other than the wife's earnings, is negative contrary to my hypotheses based on neoclassical economic theory and the life course perspective. Wives married to husbands who work overtime (65 hours per week or more) face higher risks of exiting the labor force (odds ratio = 1.3) than wives whose husbands do not. Finally, higher predicted child care costs raise the risk of a labor force exit for married mothers, consistent with the literature.

In model 4, I add demographic controls. The relationship of wife's relative earnings on labor force exits again is unchanged. Net of the work, family, and demographic control variables, wives who outearn their husbands are more likely to exit the labor force compared with wives who are equal providers, as are wives in couples where the husband is the primary provider. The coefficients for the work related indicators and the family related indicators are similar in Model 3 and 4, suggesting that the relationships between work and family characteristics on labor force exits are strong. Having a youngest child aged one or two now reduces the likelihood of a labor force exit compared with having a youngest child aged 6 to 14,

however having a youngest child under the age of 1 or having a recent new baby both remain significant and positive predictors of married mothers' labor force exits.

Three of the demographic controls are significantly related to labor force exits. Being a minority or experiencing a recent move are both positively associated with a labor force exit. As age increases, married mothers are less likely to exit the labor force.

In sum, the step-wise analyses in Table 5.4 reveal several interesting findings. First, the effect on a labor force exit of a wife being the primary provider (relative to being an equal provider) remains positive controlling for work, family, and demographic variables. Whether this positive effect varies systematically by other family income and the age of youngest child is tested in subsequent analyses. The effect of wife's relative education becomes statistically insignificant once other co-variates are included, thus this variable is removed from any subsequent analyses. The final full model without the wife's relative education is shown in Table 5.5. The effect of delayed child bearing on labor force exits is positive, supporting the life course perspective's assertion that women who have built the foundation of their careers may be able to take time off from the labor force without suffering downward mobility in the future as Blackburn et al., (1993) and Tanigushi (1999) argue. Interactions are run to better understand the dynamics involved in this positive relationship between age at first birth and married mothers' labor force exits.

**Table 5.5 Full Model, Event History Analysis Predicting Labor Force Exit Among Married Mothers with Children Under 15**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>Odds Ratio</b>
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>			
Relative monthly earnings <sup>1</sup>			
Husband primary provider	0.295 ***	0.085	1.343
Equal providers	R		
Wife primary provider	0.299 **	0.068	1.349
<b>WORK RELATED VARIABLES</b>			
<b>MOTHER'S MARKET CHARACTERISTICS</b>			
Education level			
Less than high school	0.381 ***	0.070	1.464
High school degree	R		
Some college	-0.080	0.034	0.923
College graduate	-0.096	0.053	0.908
Hours worked			
Part-time	-0.079	0.051	0.924
Full-time	R		
Monthly personal earnings			
Log of personal earnings	-0.450 ***	0.025	0.637
Labor force continuity			
Break in LF for caregiving 6+months <sup>2</sup>			
No break in LF for caregiving	R		
1 to 2 yrs with 6+ month break	-0.081	0.069	0.923
3 or more yrs with 6+ month break	0.261 ***	0.036	1.299
<b>JOB CHARACTERISTICS</b>			
Occupation			
Managerial/Professional	-0.088	0.060	0.916
Class of worker			
Private for profit	R		
Private not for profit	-0.373 ***	0.043	0.683
Government worker	-0.381 ***	0.073	0.877
Own business	-0.131 *	0.058	0.688
Health insurance			
Health insurance through husband (or other)	R		
Health insurance through current job	-1.137 ***	0.090	0.320
No health insurance	0.199 ***	0.049	1.220
<b>FAMILY RELATED VARIABLES</b>			
<b>CHILDREN</b>			
Number of children			
One	R		
Two	-0.217 ***	0.042	0.805
Three or more	-0.219 ***	0.056	0.803

**Table 5.5 CONTINUED**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>Odds Ratio</b>
Age of youngest child			
Less than 1	0.599 ***	0.181	1.820
1 to 2	-0.145 **	0.048	0.865
3 to 5	-0.141	0.077	0.869
6 to 14	R		
Child enters household in previous or current wave			
New baby	0.401 *	0.189	1.494
Older child enters	0.525	0.522	1.692
<b>TIMING OF LIFE EVENTS</b>			
Age at first birth			
Younger, under 22	-0.016	0.052	0.984
On-time, 23-28	R		
Older, 29 and over	0.262 ***	0.042	1.299
Missing	0.258 **	0.088	1.297
<b>FAMILY ECONOMICS</b>			
Other family income <sup>3</sup>			
Log of other family income	-0.084 ***	0.013	0.919
Husband's work hours			
Husband works 65+ hours per week	0.312 ***	0.059	1.366
Child care costs			
Log of predicted child care costs	0.562 ***	0.100	1.754
<b>DEMOGRAPHIC CONTROLS</b>			
Race and ethnicity			
Minority	0.229 ***	0.055	1.258
White, not Hispanic	R		
Age			
Continuous variable of age	-0.018 ***	0.003	0.983
Residence			
Metro residence	0.018	0.046	1.019
Move			
Move in previous or current wave	0.518 ***	0.069	1.681
Intercept	0.694 ***	0.201	
-2 Log Likelihood	14,110.240		
X <sup>2</sup>	1,846.784		
Degrees of freedom	32		
Number of observations	51,150		

Source: 1996 SIPP Panel. Unit of analysis is person-wave.

<sup>1</sup> This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

<sup>2</sup> Includes only labor force breaks for 6 or more months prior to the start of the panel (ie., Wave 1).

<sup>3</sup> Excludes mother's earnings. p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001 R: Reference group

The negative relationship for other family income, excluding the mother's personal earnings, is contrary to previous literature and neoclassical economic theory's contention that mothers exit the labor force as other family income rises because this reduces her opportunity costs of not working. I ran several models varying only the specification of other monthly family income to examine the relationship more closely (see Table 5.6). The other co-variates in the models are those shown in the full model in Table 5.5. Model 1 specifies other family income as the log of other family as in Table 5.5, and shows that other family income is negatively associated with married mothers' labor force exits. With every dollar increase in other family income, the likelihood of a married mother's labor force exit decreases by 8.4 percent. In Models 2 – 7, other family income is specified as categorical variables, with a different reference group in each model. In Model 2, the reference category is the lowest other earning group, \$1,500 or less. The coefficients for all three other income categories are negative, showing the same negative relationship between other family income and labor force exits exhibited in Model 1. Model 3 changes the reference group to other family income between \$1,500 and \$2,999. Mothers living in the lowest other income group are more likely to exit the labor force, probably because the costs associated with working outweigh the gains from working. The coefficients for the two higher other family income groups are both negative, but only the coefficient for mothers living in families with other family income between \$3,000 and \$4,499 per month is significant. Model 4 shows that mothers with the highest and lowest other family income are more likely to exit the labor force, compared with mothers living with other family income between \$3,000

and \$4,499. When the reference group is changed to the highest other income group (as in Model 5), \$4,500 or more per month, mothers living with other family income in the two middle groups are significantly less likely to exit the labor force.

Finally, I tested for a curvilinear effect of other family income to see if mothers with very low other family income and mothers with high other family income exhibit the same effect on mothers' labor force exits, namely a positive effect. Model 6 shows that both coefficients are positive, but only the coefficient for the lowest other family income group is significant. It is possible that the cut point for the highest other family income category is not sufficiently high enough to push a mother to exit. Roughly translated into annual income, \$4,500 per month yields about \$52,000 annually. To test this, I changed the two highest other income categories to be between \$3,000 and \$6,249 and \$6,250 and higher (\$6,250 per month is roughly equivalent to \$75,000 annual other family income). Model 7 shows that compared to mothers living in families with between \$1,500 and \$6,249 monthly other income, mothers with very low income and mothers with very high income (under \$1,500 and over \$6,250 per month, respectively) are more likely to exit the labor force, suggesting that a curvilinear relationship exists between other family income and mothers' labor force exits. Regardless of the specification of other family income shown in Table 5.6, the coefficients for the other co-variates in the model remained stable. Appendix Table 5.B shows the full model with other family income specified as in Model 7 in Table 5.6.

**Table 5.6 Different Specifications of Other Family Income, Event History Analysis  
Predicting Labor Force Exit Among Married Mothers with Children Under 15**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>
<b>Different specifications of other family income<sup>1</sup></b>		
<b>MODEL 1</b>		
Log of other family income	-0.084 ***	0.013
Other family income categories		
<b>MODEL 2</b>		
Less than \$1,500	R	
\$1,500 - \$2,999	-0.317 ***	0.052
\$3,000 - \$4,499	-0.458 ***	0.057
\$4,500 or more	-0.301 ***	0.075
<b>MODEL 3</b>		
Less than \$1,500	0.189 ***	0.054
\$1,500 - \$2,999	R	
\$3,000 - \$4,499	-0.173 ***	0.042
\$4,500 or more	-0.010	0.052
<b>MODEL 4</b>		
Less than \$1,500	0.269 ***	0.064
\$1,500 - \$2,999	0.050	0.048
\$3,000 - \$4,499	R	
\$4,500 or more	0.095 **	0.037
<b>MODEL 5</b>		
Less than \$1,500	0.097	0.074
\$1,500 - \$2,999	-0.121 *	0.052
\$3,000 - \$4,499	-0.239 ***	0.031
\$4,500 or more	R	
<b>MODEL 6</b>		
Less than \$1,500	0.234 ***	0.052
\$1,500 - \$2,999	R	
\$3,000 - \$4,499	R	
\$4,500 or more	0.069	0.038
<b>MODEL 7</b>		
Less than \$1,500	0.235 ***	0.052
\$1,500 - \$2,999	R	
\$3,000 - \$6,249	R	
\$6,250 or more	0.210 ***	0.040

Source: 1996 SIPP Panel. Unit of analysis is person-wave. p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001

<sup>1</sup>Excludes mother's earnings.

Note: All models control for variables specified in Table 5.5, with only the specification of other family income changing.

Another possibility is that this sample of married employed mothers with children under 15 is a somewhat select group. Recall from Table 5.1 that mothers who were not employed in wave 1 had higher average other family income than those who were employed at wave 1. If higher other family income gives married mothers a “choice” of exiting the labor force, this suggests that those married mothers who wanted to exit and could afford to exit due to higher other family income may have already done so. If this is the case, the employed married mothers with higher other family income in my sample are made up of mothers with stronger ties to the labor force with a low inclination to exit. Recall also that this analysis is not looking at labor force patterns of new mothers, or labor force exits after the birth of a child, when the value of a mother’s time in the home is especially high and other family income exerts a strong positive effect on labor force exits, as prior research has shown. In any case, the results from my models show that the effect of other family income on married mothers’ labor force exits is negative, or possibly curvilinear with labor force exits likely at low and very high other family income levels.

### **Interactions with wife’s relative earnings**

#### **Other family income**

It is possible that the relationship between wife’s relative earnings and labor force exits are moderated by the amount of other family income available (not including her earnings). When other family income is low, a wife who is the primary provider would likely be hesitant to exit the labor force because her income plays a crucial role in keeping the family solvent. However, when other family income is

high, a wife who is the primary provider may be more apt to exit the labor force because the family can “make it” on the husbands earnings alone.

To test this possibility, I add an interaction term between the wife’s relative earnings and other family income, not including the wife’s earnings, to the full model. An interaction effect refers to the case where the nature of the relationship between one of the independent variables and the dependent variable changes as a function of another independent variable (Jaccard 1983; Jaccard, Turrisi, and Wan 1990).

Because my interest is in the effect of the wife’s relative earnings as moderated by other family income, Table 5.7 shows the coefficients for the wife’s relative earnings, other family income, and the interaction terms, controlling for the work, family, and demographic control variables. Table 5.7 shows two interaction models. Model 1 presents a multiplicative model with an interaction of the two dummy variables measuring the wife’s relative earnings and the log of other monthly family income (the additive model, or main effects only model, is shown in Table 5.5). Model 2 in Table 5.7 shows the multiplicative model with an interaction of the two dummy variables measuring the wife’s relative earnings and three categories of other family income: Other monthly family income of \$1,500 or less, other monthly family income of \$1,500 to \$6,249 (reference category), and other monthly family income of \$6,250 or more (the additive model, or main effects only model, is shown in Appendix Table 5.B). The complete models with all the independent variables included are shown in Appendix Table 5.C and 5.D.

**Table 5.7 Event History Analysis Predicting Labor Force Exit Among Married Mothers with Children Under 15 With Interaction of Wife's Relative Earnings and Other Family Income**

Parameter	Model 1 Coefficient	Model 2 Coefficient
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>		
Relative monthly earnings <sup>1</sup>		
Husband primary provider	-0.424	0.332 ***
Equal providers	R	R
Wife primary provider	-0.796 **	0.797 ***
<b>MODEL 1</b>		
Interaction with log of other family income		
Husband primary * log other family income	0.099 *	
Wife primary * log other family income	0.152 ***	
Other family income <sup>2</sup>		
Log of other family income	-0.221 ***	
<b>MODEL 2</b>		
Interaction with other family income categories		
Husband primary * other income less than \$1,500		-0.071
Husband primary * other income \$6,250 or more		0.168
Wife primary * other income less than \$1,500		-0.651 ***
Wife primary * other income \$6,250 or more		0.068
Other family income		
Less than \$1,500		0.414 ***
\$1,500 - \$6,249		R
\$6,250 or more		0.060

Source: 1996 SIPP Panel. Unit of analysis is person-wave.

<sup>1</sup>This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

<sup>2</sup>Excludes mother's earnings. p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001 R: Reference group

Note: All models control for variables specified in Table 5.5, with only the specification of other family income and the interactions changing.

The interaction term measuring the wife as the primary earner and the log of other family income in Model 1 is significant, indicating that the nature of the

relationship between the wife being the primary earner does vary systematically depending on other family income. Recall from Table 5.5 that the main effect of the wife being a primary provider was statistically significant and positively related to labor force exits in the additive model (coefficient=0.299). Table 5.7 shows that the main effect of the wife being a primary provider in the multiplicative model is negative and statistically significant. This makes sense because the interpretation of the main effect is conditional on the other independent variable, when it is equal to 0 (Jaccard et. al 1990). Thus, at very low other family income levels, wives who outearn their husbands have a lower propensity to exit the labor force. The main effect of the log of other family income is negative and significant, meaning that as other family income rises, wives who are equal earners with their husbands are less likely to exit the labor force. The interaction term is positive and statistically significant. For every dollar increase in other family income, the slope of the wife being a primary provider on labor force exits increases by 0.152 units, meaning that the likelihood of an exit increases by 0.152 for wives who outearn their husbands as other family income rises. Thus, in general the interaction intensifies the positive effect of the wife being the primary provider on labor force exits by pushing up the slope as other family income rises.

Model 2 provides insight into how other family income categories moderate the relationship between wife's relative earnings and labor force exits. One of the interaction terms measuring the wife as the primary earner and the other family income categories in Model 2 is significant, indicating that the nature of the

relationship between the wife being the primary earner does vary depending on some of the other family income categories.

Appendix Table 5.B shows that the main effect of the wife being a primary provider was statistically significant and positively related to labor force exits in this additive model (coefficient=0.419), when other family income is specified as the three dummy variables shown in Model 2. Model 2 in Table 5.7 shows that the main effect of the wife being a primary provider in the multiplicative model is positive and statistically significant. Again, this makes sense because now the reference group is other family income between \$1,500 and \$6,249. Thus, at moderate to middle other family income levels, wives who outearn their husbands have a higher propensity to exit the labor force. The main effect of very low other family income is positive and significant, meaning that at very low other income levels, wives who are equal earners with their husbands are more likely to exit the labor force. The main effect of very high other family income is positive but not statistically significant. The interaction term between very low other family income and wife as primary provider is negative and statistically significant. Thus, if the wife is the primary provider and the husband is a very low earner, the slope of wife being a primary provider on labor force exits decreases by 0.651 units. Thus, the interaction effect in general softens the positive main effect of wives who outearn their husbands having a higher propensity to exit the labor force by pushing the slope down when other family income is very low. The interaction term between very high other family income and wife as primary provider is positive but is not statistically significant. Neither of the

interaction terms between husband as primary provider and other family income categories is statistically significant.

#### **Age of youngest child**

It is also possible that the effect of wife's relative earnings on labor force exits varies by the intensity of her family care responsibilities. Previous research shows that the pull of family tends to be strongest during times of family building, when children are young and if there are many children. Could the increased propensity of labor force exits among wives who outearn their husbands be due, in part, to the age of their youngest child? To test this, I add an interaction term between the wife's relative earnings and the age of her youngest child to the full model presented in Table 5.5. Results for the interaction terms and the main effects are presented in Table 5.8, controlling for the work, family, and demographic control variables. The complete model with all the covariates is shown in Appendix Table 5.E.

The interaction term measuring the wife as the primary earner and the continuous variable of age of youngest child is not significant, indicating that the nature of the relationship between the wife being the primary earner does not vary systematically depending on the age of the youngest child. Table 5.8 shows that the main effect of the wife being a primary provider in the multiplicative model is positive and statistically significant. This makes sense because the interpretation of the main effect is that when there is a very young child in the household, wives who outearn their husbands have a higher propensity to exit the labor force. The main effect of the age of youngest child is positive but not significant. The interaction term of wife as primary provider and age of youngest child is negative and not statistically

significant. However, the interaction term of husband as primary provider and age of youngest child is negative and statistically significant.

**Table 5.8 Event History Analysis Predicting Labor Force Exit Among Married Mothers with Children Under 15 With Interaction of Wife's Relative Earnings and Age of Youngest Child**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>		
Relative monthly earnings <sup>1</sup>		
Husband primary provider	0.531 ***	0.102
Equal providers	R	
Wife primary provider	0.436 ***	0.138
Interactions		
Husband primary * age of youngest child	-0.042 ***	0.012
Wife primary * age of youngest child	-0.023	0.015
Age of youngest child		
Continuous variable of age of youngest child	0.015	0.011

Source: 1996 SIPP Panel. Unit of analysis is person-wave.

<sup>1</sup>This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001 R: Reference group

### **Interactions with age at first birth**

Recall the finding from the final full model that married mothers who delayed child bearing were significantly more likely to exit the labor force compared with those who began child bearing on-time (see Appendix Table 5.F, the same final full model but now it shows the coefficients for age at first birth at the top of the table).

According to neoclassical economic theory, women who delay child bearing invest more in their career and market value through higher education and work experience, and have higher earnings, so they would be less likely to exit the labor force because their actual wage would be higher than their reservation wage. However, the results support the life course perspective's argument that this higher investment in market value leads married mothers who delay child bearing to believe that they can easily reenter the labor force and would not be disadvantaged from a labor force break (Blackburn et al. 1993; Tanigushi 1999).

To test whether married mothers who delay child bearing and have high market value face a higher risk of a labor force exit, I add two interactions separately into the full model: one interaction of the age at first birth and the mother's personal earnings (model 1) and the second interaction of the age at first birth and the mother's education level (model 2). My interest is on the effect of age at first birth as moderated by mother's personal earnings or by mother's education level, thus Table 5.9 shows the coefficients for age at first birth, mother's personal earnings, and the interaction terms, controlling for the work, family, and demographic control variables. Model 1 displays the coefficients for the model that interacts age at first birth with mother's personal earnings. Model 2 displays the coefficients for the model that interacts age at first birth with mother's education level. Complete models are shown in Appendix Table 5.G (interaction with mother's personal earnings) and Appendix Table 5.H (interaction with mother's education level).

The interaction term of old age at first birth and log of personal earnings in Model 1 is significant, indicating that the nature of the relationship between delayed

childbearing does vary systematically depending on earnings. Recall from Table 5.5 that the main effect of delayed childbearing was statistically significant and positively related to labor force exits in the additive model (coefficient=0.262). Table 5.9 shows that the main effect of delayed childbearing in the multiplicative model is negative and statistically significant. This makes sense because the interpretation of the main effect is conditional on the other independent variable, personal earnings. When personal earnings are very low, mothers who delay childbearing have a lower propensity to exit the labor force. The main effect of the log of personal earnings is negative and significant, meaning that as earnings rise, mothers who begin childbearing on-time are less likely to exit the labor force. The interaction term is positive and statistically significant. For every dollar increase in personal earnings, the slope of delayed childbearing on labor force exits increases by 0.139 units, meaning that the likelihood of an exit increases by 0.139 for delayed childbearers as their earnings rises. Thus, in general the interaction intensifies the positive effect of delayed childbearing on labor force exits by pushing up the slope as personal earnings rise.

Model 2 includes an interaction of delayed child bearing and education level.<sup>12</sup> The interaction of delayed childbearing and college graduate is statistically significant and negative, indicating that the nature of the relationship between delayed childbearing does vary to some extent depending on education. Model 2 in Table 5.9 shows that the main effect of delayed childbearing in the multiplicative model is positive and statistically significant, meaning that high school graduates who delay

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<sup>12</sup> In a previous model, I estimated a full interaction of all the age at first birth dummy variables and the education categories, but removed them because none of the interactions were significant for early childbearing or missing on age at first birth.

childbearing are more likely to exit the labor force. The main effect of having less than a high school degree is positive and significant, and the main effect of having some college education is negative and significant. Thus early, on-time and those missing age at first birth data who have less than a high school degree are more likely to exit the labor force, but those with some college are less likely to exit. The interaction effect of delayed childbearing and having a college degree is negative and significant. Being a college graduate decreases the slope of delayed childbearing on labor force exits by 0.394 units, meaning that the likelihood of an exit decreases by 0.394 for college graduates who delay childbearing. Thus, in general the interaction intensifies the negative effect of delayed childbearing on labor force exits by pushing the slope down.

While Model 1 shows that delayed childbearers are more likely to exit the labor force as their earnings rise, Model 2 shows that college graduates who delay childbearing are less likely to exit the labor force. Thus, my results provide mixed support for the life course perspective's argument that mothers who delay childbearing and have a higher market value may believe they can reenter the market place easily after a labor force break.

**Table 5.9 Event History Analysis Predicting Labor Force Exit Among Married Mothers with Children Under 15 With Interaction of Age at First Birth and Mother's Earnings and Education**

Parameter	Model 1 Coefficient	Model 2 Coefficient
<b>TIMING OF PREVIOUS LIFE EVENTS</b>		
Age at first birth		
Younger, under 22	-0.491	R
On-time, 23-28	R	R
Older, 29 and over	-0.663 *	0.407 ***
Missing	-0.165	R
<b>MODEL 1</b>		
Interaction with log of personal monthly earnings		
Young first birth * log of earnings	0.073	
Old first birth * log of earnings	0.139 ***	
Missing first birth * log of earnings	0.065	
Monthly personal earnings		
Log of earnings	-0.508 ***	
<b>MODEL 2</b>		
Interaction with education		
Old first birth * less than high school		-0.085
Old first birth * some college		-0.048
Old first birth * college graduate		-0.394 ***
Education level		
Less than high school		0.388 ***
High school degree		R
Some college		-0.088 *
College graduate		0.018

Source: 1996 SIPP Panel. Unit of analysis is person-wave.

p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001 R: Reference group

### Full-time Motherhood

Next, this dissertation examines the extent to which the explanatory factors differ depending on the primary reason for the labor force exit. Mothers exit the labor

force for a variety of reasons, but most mothers, when asked, respond that they left the labor force primarily 1) to take care of children and family or 2) due to childbirth/pregnancy (see Table 4.4). In this dissertation, I consider these reasons to be full-time motherhood reasons. Other reasons to exit the labor force include health reasons, going to school, not able to find a job, and other reasons.

### **Labor force exits for full-time motherhood reasons or other reasons**

Table 5.10 shows the results from a multinomial discrete-time event history analysis predicting whether a married mother exits the labor force for full-time motherhood reasons or for other reasons. Studies of mother's labor force exits tend to rely on data collected on observed labor force behavior, such as in the labor force or not, without examining the reason for the behavior. If major differences in the effect of the coefficients exist by reason for the labor force exit, then the study of married mother's labor force exits should include a control for the reason or study these two groups separately. On the other hand, if very few discrepancies exist or if the effects seen in the final full model (see Table 5.5 for a review) reflect the effects seen for full-time motherhood reasons in the multinomial model, then no such control is necessary.

At first glance, the results presented in Table 5.10 show similar relationships between the covariates and the likelihood of exiting the labor force for full-time motherhood reasons and for other reasons. Relationships generally are in the same direction, although at varying levels of significance. However, important variations do exist.

Looking first at mother's relative earnings, the relationships seen in previous tables appear to be driven by mother's who exit for full-time motherhood. Wives are more likely to exit the labor force if they are the primary provider or if their husband is the primary provider, compared with wives who are equal providers, only among married mothers who exit for full-time motherhood.

Turning to work related variables, married mothers with less than a high school degree are more likely to exit the labor force for full-time motherhood reasons and for other reasons compared with mothers who graduated from high school. Married mothers with some college do not differ statistically from high school graduates in their propensity to exit the labor force regardless of their reason for the exit. Yet, being a college graduate is only statistically associated with a decreased risk for a labor force exit among those married mothers who exited the labor force for reasons not related to motherhood. This negative effect of having a college degree is also found in the full model, and seems to be attributable only to those who exit for other reasons, not for full-time motherhood reasons.

The effect of working part-time hours is negative regardless of the reason for the exit, but is only significant for those who exit for other reasons. As personal earnings increase, married mothers are less likely to exit the labor force regardless of the reason for the exit. The increased risk of a labor force exit for mothers who have had 3 or more breaks from the labor force for 6 or more months seen in the full model apparently is driven by those who exit for full-time motherhood reasons. The more times a married mother has exited to care for family and children, the greater her risk is to exit again for those reasons.

**Table 5.10 Discrete-time Event History Analysis Predicting Labor Force Exit for Employed Married Mothers With Children Under 15, Comparing All Reasons for Labor Force Exit with Reasons Related to Full-time Motherhood**

Parameter	Full-time Motherhood Reasons <sup>a</sup>		Other Reasons <sup>b</sup>	
	Coefficient	Standard error	Coefficient	Standard error
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>				
Relative monthly earnings <sup>1</sup>				
Husband primary provider	0.422 ***	0.086	-0.070	0.142
Equal providers	R		R	
Wife primary provider	0.275 *	0.123	0.306	0.179
<b>WORK RELATED VARIABLES</b>				
<b>MOTHER'S MARKET CHARACTERISTICS</b>				
Education level				
Less than high school	0.401 ***	0.091	0.309 *	0.156
High school degree	R		R	
Some college	-0.069	0.072	-0.104	0.126
College graduate	0.021	0.097	-0.487 *	0.189
Hours worked				
Part-time	-0.023	0.065	-0.283 *	0.122
Full-time	R		R	
Monthly personal earnings				
Log of personal earnings	-0.441 ***	0.030	-0.462 ***	0.055
Labor force continuity				
Break in LF for caregiving 6+months <sup>1</sup>				
No break in LF for caregiving	R		R	
1 to 2 yrs with 6+ month break	-0.077	0.098	-0.093	0.187
3 or more yrs with 6+ month break	0.306 ***	0.065	0.140	0.116

**Table 5.10 CONTINUED**

Parameter	Full-time Motherhood		Other Reasons <sup>b</sup>	
	Reasons <sup>a</sup>			
	Coefficient	Standard error	Coefficient	Standard error
<b>JOB CHARACTERISTICS</b>				
Occupation				
Managerial/Professional	-0.143	0.077	0.099	0.138
Class of worker				
Private for profit	R		R	
Private not for profit	-0.342 **	0.112	-0.463 *	0.212
Government worker	-0.404 ***	0.099	-0.293	0.165
Own business	-0.059	0.082	-0.419 *	0.169
Health insurance				
Health insurance through husband (or other)	R		R	
Health insurance through current job	-1.073 ***	0.093	-1.342 ***	0.165
No health insurance	0.198 *	0.078	0.186	0.138
<b>FAMILY RELATED VARIABLES</b>				
<b>CHILDREN</b>				
Number of children				
One	R		R	
Two	-0.184 **	0.069	-0.232 *	0.119
Three or more	-0.072	0.088	-0.619 ***	0.171
Age of youngest child				
Less than 1	0.625 ***	0.105	0.304	0.211
1 to 2	-0.142	0.119	-0.194	0.220
3 to 5	-0.104	0.093	-0.285	0.173
6 to 14	R		R	
Child enters in previous or current wave				
New baby	0.480 ***	0.101	-0.276	0.299
Older child enters	0.174	0.479	0.870	0.469

**Table 5.10 CONTINUED**

Parameter	Full-time Motherhood		Other Reasons <sup>b</sup>	
	Reasons <sup>a</sup>			
	Coefficient	Standard error	Coefficient	Standard error
<b>TIMING OF LIFE EVENTS</b>				
Age at first birth				
Younger, under 22	-0.090	0.072	0.131	0.124
On-time, 23-28	R		R	
Older, 29 and over	0.360 ***	0.084	0.052	0.157
Missing	0.213 *	0.100	0.377 *	0.179
<b>FAMILY ECONOMICS</b>				
Other family income <sup>3</sup>				
Log of other family income	-0.085 ***	0.023	-0.092 **	0.035
Husband's work hours				
Husband works 65+ hours per week	0.335 ***	0.078	0.227	0.153
Child care costs				
Log of predicted child care costs	0.490 **	0.168	0.651 *	0.330
<b>DEMOGRAPHIC CONTROLS</b>				
Race and ethnicity				
Minority	0.191 **	0.069	0.341 **	0.120
White, not Hispanic	R		R	
Age				
Continuous variable of age	-0.036 ***	0.005	0.026 ***	0.008
Residence				
Metro residence	0.033	0.076	-0.004	0.138
Move				
Move in previous or current wave	0.495 ***	0.086	0.584 ***	0.160

**Table 5.10 CONTINUED**

Intercept	0.827	0.341	-1.659 **	0.570
-2 Log Likelihood	15,887.950			
$X^2$				
Degrees of freedom	66			
Number of observations	51,150			

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Source: 1996 SIPP Panel. Unit of analysis is person-wave. p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001 R: Reference group

<sup>1</sup>This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

<sup>2</sup>This measure is calculated using four education categories (less than high school, high school graduate, some college, and college graduate) and comparing the wife's education with the husband's.

<sup>3</sup>Includes only labor force breaks for 6 or more months prior to the start of the panel (ie., Wave 1).

<sup>4</sup>Excludes mother's earnings.

Married mothers working in the private, not for profit sector, working for the government, and self-employed mothers are less likely to exit the labor force for full-time motherhood than their counterparts in the private, for profit sector. While working in the private, not for profit sector and being self employed reduce the likelihood of a labor force exit for other reasons, working for the government is not statistically significant for this group of mothers. Having health insurance through a current job reduces the propensity for a labor force exit for both full-time motherhood and other reasons, not having health insurance increases the propensity for labor force exit for full-time motherhood reasons only.

Looking now at family related variables, mothers with more than one child are less likely to exit the labor force, regardless of the reason for the exit. However, mothers with a youngest child under the age of 1 and mothers with a new baby are more likely to exit the labor force for full-time motherhood reasons only. The positive effect of delayed child bearing on labor force exits seen in the full model is only evident for mothers who exit for full-time motherhood reasons.

The effect of two of the indicators of family economics on labor force exits is the same for both groups of mothers. Higher levels of other family income decrease the likelihood of labor force exits, while higher child care costs increase the likelihood of labor force exits, regardless of the reason for the exit. But having a husband who works overtime (65 or more hours per week) increases the likelihood of a labor force exit only for those who exit for full-time motherhood reasons. All the demographic control variables exhibit the same effect regardless of the reason for the exit.

Despite the differences found in the determinants of exiting the labor force for full-time motherhood reasons and for other reasons, similar relationships exist in the full model as in the full-time motherhood model. Therefore, the standard approach of using nonemployment as a proxy for full-time motherhood appears to be a valid approach to studying labor force exits of mothers.

### Discussion

These analyses add breadth and depth to the discussion of mothers labor force exits by building upon previous research. One key finding is that mothers who outearn their husbands are more likely to exit the labor force, all else equal. This result adds an important element to the discussion on married mothers' labor force exits—the element of marital power as a potential factor influencing labor force participation decisions. A second key finding is that mothers who delay child bearing are more likely to exit the labor force, net of all the co-variates in the model. This result opens the possibility that the timing of a pivotal life event—the onset of child bearing—can have differential impacts on the life trajectory of women, such that married mothers who delay child bearing may be able to take time off from the labor force without suffering downward mobility. These two findings are elaborated upon further below.

My results show that the effect of a mother being the primary provider is positively associated with labor force exits, contrary to my expectation and to neoclassical economic theory. To better understand the dynamics involved in this relationship I interacted wife's relative earnings to her husband with other family

income. The interactions shed light on important distinctions of which married mothers exit the labor force. When the wife's relative earnings are interacted with the log of other family income, the main effect of having the wife as a primary provider is large, negative and statistically significant. But in these models, the effect for other family income is also negative and the interaction effect attenuates or softens these two negative main effects. That is, the interaction effect is positive and significant. This suggests that at very high income levels where wives are the primary earners—where one might expect very low exit rates—exit rates are no lower, indeed may be somewhat higher, than for primary earners with somewhat lower family income. These are the married mothers who in essence have the most choice. Mothers who outearn their husbands, but are in somewhat lower income families, remain employed. Why might high earning wives who outearn their high earning husbands exit the labor force? These are the women Belkin (2004) is referring to in her NY Times article, the very women poised to compete evenly with men in the market place, and break glass ceilings—the lawyers, doctors, professionals, and Blair-Loy's (2003) finance executives. One can look to the gender perspective for interpretation of these findings. Research suggests that there is a discomfort among couples when the wife is the primary breadwinner (Tichenor 2005). Under a gender perspective, these results suggest that high earning wives who outearn their high earning husbands compensate for their gender deviance of being the primary breadwinner by exiting the labor force. While low earning wives who outearn their husbands may not be able to afford to exit, previous research has shown that they appear to compensate for their gender deviance by doing more housework (Brines 1994; Bittman et al. 2003;

Greenstein 2000) or by other behaviors that maintain men’s marital dominance and power (Tichenor 1999, 2005). However, my research cannot definitively answer the question of why these wives exit the labor force—whether the labor force exit is an enactment of gender or is due to affordability.

The positive effect of delayed child bearing on labor force exits among married mothers also is noteworthy. This result contradicts the expectation based on neoclassical economic theory, but is consistent with the life course perspective. Using a life course lens allows for the interpretation that married mothers who delay child bearing and invest in building their market value are better poised to take time off from the labor force without suffering downward mobility. By interacting the age of first birth with personal earnings and education level, I was able to see whether married mothers who had invested in their market value—those with higher earnings and education—were systematically more likely to exit the labor force. The results showed that mothers who delayed child bearing and were high earners were more likely to exit the labor force, but those with high education were less likely to exit than those with a high school degree. These results provide mixed support for the notion that the timing of a life event, such as the birth of a first child, can have differential impacts. Missing from this analysis is whether delayed child bearers reenter the labor force without suffering downward mobility, whether their high market value actually translates into high earnings after “time off” from the labor force, as the theory speculates.<sup>13</sup>

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<sup>13</sup> This dissertation does not attempt to answer this question, although this is fertile ground for further research.

In general, the remaining results from these analyses are consistent with previous studies on mothers labor force participation. The results for work related measures are consistent with previous literature and with neoclassical economic theory. My results show that mothers with higher human capital do not transition out of the labor force and those with lower human capital do. Family building—having an infant or a new baby—is associated with labor force exits, supporting previous research. Mothers facing higher child care costs have a higher risk of a labor force exits than those with lower child care costs.

Having a husband who works 65 or more hours per week, a nontrivial amount of overtime, increases the propensity that a married mother will exit the labor force, as expected. All three theoretical perspectives hypothesize that the direction of the relationship between being married to a husband who works long hours will be positively associated with labor force exits (recall the discussion of the conceptual framework from Chapter 3). It is unclear from the analysis whether this is an example of an adaptive strategy as the life course perspective argues, or a display of gender as the gender perspective contends, or just goes along with the territory of men having the comparative market advantage as neoclassical economic theory suggests.

The effect of other family income is negative, contrary to my expectations based on neoclassical economic theory. However, as previously discussed, the relationship is possibly curvilinear and my sample may be made up of a group of married mothers who have strong ties to the labor force or greater financial need. Similarly, the effect of having two or more children is negative, contrary to my

expectation based on both neoclassical economic theory and the life course perspective. Again, this may be due to my sample being composed of all mothers with children under 15, rather than first-time mothers.

The results for the demographic controls are also consistent with the literature: the probability of a labor force exit increases with age; being a minority increases the probability of a labor force exit, as does moving.

This chapter sheds light on one part of the puzzle of married mothers labor force participation by showing which factors are related to married mothers' labor force exits. The following chapter investigates the second part of the puzzle by answering this question—what factors influence married mothers' labor force entrances?

## **Chapter 6: Determinants of Labor Force Entrances**

Women's labor force patterns fluctuate, such that at any given point some women are making the decision to exit the labor force and others are making the decision to enter it. Granted there is a small core of women who exit the labor force never to reenter, many women today enter and leave the labor force for various reasons over the course of their work lives. This chapter examines the factors that determine married mothers labor force entrances using the same theoretical framework discussed in Chapter 3. Specifically, I explore whether and how a mother's work and family characteristics play a role in labor force entrances using neoclassical economic theory, the life course perspective, and the gender perspective.

This chapter proceeds as follows: As a first step, I review the descriptive statistics for the sample as a whole comparing married mothers with children under 15 at wave 1 by their employment status at wave 1. I then examine descriptive statistics of the sample of married mothers who were not employed at wave 1 by their subsequent labor force participation pattern during the panel. Next, I build an event history analysis regression model predicting the first labor force entrance during the panel controlling for married mothers' market value and family related characteristics, and demographic controls. I then investigate whether married mothers enter the labor force for part- or full-time hours using both multinomial and logistic event history regression techniques. Finally, a multinomial regression is presented to explore whether the predictors of labor force entrances vary by the reason for being nonemployed just prior to the entrance.

### Wave 1 Sample Characteristics

Recall from Chapter 5 that fewer married mothers are not employed in wave 1 of the SIPP than are employed (31 percent compared with 69 percent) (refer to Table 5.1 for details). This means that fewer married mothers are “at risk” for a labor force entrance than for a labor force exit. In general, married mothers who are not employed at wave 1 have lower market value than married employed mothers (lower education levels and less work experience) and have a higher average family income from other sources. Non-employed married mothers are family building to a greater extent than employed married mothers (a higher proportion have more children under 15 and younger children) and are more likely to have begun family building at an earlier age. Similar proportions are married to a spouse who works 65 or more hours per week. Married non-employed mothers are more likely to be married to a husband who has a higher education than they do, however both groups are most likely to have the same education as their husband. Only 17 percent of non-employed married mothers have a higher education than their husband compared with 25 percent among the employed married mothers. Finally, larger proportions of nonemployed married mothers are minorities and are younger (15 to 24 years old) than married employed mothers.

*Labor Force Entrances: Married Mothers with Children under 15*

Table 6.1 compares labor force participation during the panel for two groups of mothers who were not employed at wave 1: the half of the married mothers not employed at wave 1 who enter the labor force during the panel, and the other half who remain out during the entire time they are observed in the panel. When looking at the frequency distributions presented in Table 6.1, these two groups of mothers appear very similar on many dimensions, with only a few notable exceptions. A lower proportion of married mothers with less than a high school education enter the labor force, while a higher proportion of those with a high school degree enter compared with married mothers who remain out of the labor force for the entire panel. Married mothers who have greater economic need appear to enter the labor force, while those with higher levels of other family income remain out. A higher proportion of mothers who remain out of the labor force have predicted relative hourly wages that are less than or equal to their husband than mothers who enter, while similar proportions have higher predicted wages. Mothers who remain out of the labor force are slightly older and live in metro areas to a greater extent than mothers who enter the labor force.

**Table 6.1: Weighted Comparison of Non-Employed Married Women with Children in Wave 1 by Labor Force Participation During the Panel**

<b>Characteristics at Wave 1</b>	<b>NOT EMPLOYED AT WAVE 1</b>	
	<b>Never employed during panel</b>	<b>Enter labor force during panel</b>
Number (in thousands)	3,352	2,557
<b>WORK RELATED VARIABLES</b>		
<b>MOTHER'S MARKET CHARACTERISTICS</b>		
Education level		
Less than high school	26.4 *	19.3
High school degree	31.0 *	38.2
Some college	23.1	26.2
College graduate	19.6	16.3
Master's degree or higher	4.0	4.0
Earnings		
Mean average predicted hourly wage	\$11.04	\$10.83
Labor force continuity		
Break in LF for caregiving 6+months <sup>1</sup>		
No break in LF for caregiving	32.9	32.9
1 to 2 yrs with 6+ month break	7.5 *	10.6
3 to 5 yrs with 6+ month break	14.2 *	19.0
6 to 10 yrs with 6+ month break	20.8	18.4
11 or more yrs with 6+ month break	24.6 *	19.2
Mean number of years	10.1 *	8.5
<b>FAMILY RELATED VARIABLES</b>		
<b>CHILDREN</b>		
Number of children		
One	30.8	32.7
Two	38.6	38.8
Three or more	30.6	28.5
Mean number of children	2.1	2.1
Age of youngest child		
Less than 1	22.9	18.8
1 to 2	23.5	24.8
3 to 5	22.0	23.0
6 to 9	16.5	18.7
10 to 14	15.1	14.8
Mean age youngest child	4.2	4.4
Birth during panel		
Yes	21.5	18.8
<b>LIFE COURSE VARIABLES</b>		
Age at first birth		
Younger, under 22	32.4	36.2
On-time, 22-28	38.3	37.8
Older, 29 and over	20.0	18.1
Missing	9.4	7.9

**TABLE 6.1 CONTINUED**

<b>Characteristics at Wave 1</b>	<b>NOT EMPLOYED AT WAVE 1</b>	
	<b>Never employed during panel</b>	<b>Enter labor force during panel</b>
<b>FAMILY ECONOMICS</b>		
Other family income <sup>2</sup>		
Less than \$1,500	22.0	26.2
\$1,500 - \$2,999	28.1	32.0
\$3,000 - \$4,499	18.2	20.1
\$4,500 or more	31.7 *	21.7
Mean family income	\$4,121.50 *	\$3,249.30
Husband's work hours		
Husband works 65+ hours per week	10.1	11.4
Log of predicted child care costs	2.1	2.0
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>		
Relative hourly earnings (wife predicted wages) <sup>3</sup>		
Husband primary provider	42.3 *	34.0
Equal providers	34.8 *	41.9
Wife primary provider	22.9	24.1
Relative education level <sup>4</sup>		
Husband higher education	30.4	29.2
Equal education	55.5	52.9
Wife higher education	14.2 *	18.0
<b>CONTROLS</b>		
Minority	34.0	30.4
Age		
15 to 24	8.9 *	12.2
25 to 29	14.8	17.7
30 to 34	22.7	23.5
35 to 39	24.6	23.9
40 to 44	14.2	13.5
45 to 60	14.9 *	9.2
Average age	35.8 *	34.0
Metro residence	81.4 *	76.6
Move during panel	27.9 *	36.5
Not working in wave 1 for full-time motherhood	81.8	81.7
Average number of waves in panel	9.5 *	10.8
<b>N</b>	<b>1,242</b>	<b>933</b>

Source: 1996 SIPP Panel. Unit of analysis is married mother with children under 15 at wave 1.

<sup>a</sup> Employed is defined as having a paid job and positive earnings.

<sup>1</sup> Includes only labor force breaks for 6 or more months prior to the start of the panel (ie., Wave 1).

<sup>2</sup> Excludes mother's earnings.

## TABLE 6.1 CONTINUED

<sup>3</sup>This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

<sup>4</sup>This measure is calculated using four education categories (less than high school, high school degree, some college, and college degree) and comparing the wife's education with the husband's.

\* statistically significant difference between employed and not employed at the 90 percent confidence interval.

### Event History Models Predicting Labor Force Entrance

Recall that the event history analyses use a sample of person waves of married mothers. Table 6.2 presents the total sample at risk for a labor force entrance and the dependent variable, the first labor force entrance, to be used in the analyses of labor force entrances. Table 6.2 shows that there are 21,325 waves where a married mother is not employed, or at risk of a labor force entrance during the SIPP panel, and in 1,990 waves a married mother enters the labor force. In 1,571 waves, married mothers enter employment from nonemployment for full-time motherhood reasons and in 419 waves, they enter from nonemployment for other reasons. This section first presents a step-wise analysis of the determinants of married mother's labor force entrances, tests interactions to gain a better understanding of the results, investigates further entrances into part- and full-time work, and then presents a multinomial event history regression comparing the reasons the mothers were not employed just prior to their labor force entrance. Table 6.2 also shows that in 1,126 waves, married mothers enter into part-time employment and in 864 waves, they enter into full-time employment. The chapter concludes with a discussion of key findings.

**Table 6.2 Dependent Variables**

	<b>Labor force entrances sample</b>
<b>Total sample size, person-waves</b>	<b>21,235</b>
<b>Dependent variables</b>	
<b>Labor force entrances</b>	
First labor force entrance	1,990
From motherhood reasons	1,571
From other reasons	419
Enter into:	
Part-time employment	1,126
Full-time employment	864

Source: 1996 SIPP Panel. Unit of analysis is person-wave.

### **Step-wise analyses**

Table 6.3 shows a series of four event history regression models predicting whether a married mother enters the labor force during the panel. Model one predicts the effect of wife's predicted relative earnings<sup>14</sup> and wife's relative education on labor force entrances, Model 2 adds the mother's potential market value variables, Model 3 adds family related variables, and Model 4 controls for demographic controls. This analytical strategy allows the effect of wife's predicted relative earnings and relative education to change as other co-variates are added to the model.

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<sup>14</sup> Recall from Chapter 4: Data and Analysis Plan, that the wife's relative earnings with respect to labor force entrances uses the wife's predicted hourly wages in relation to the husband's actual hourly wages.

**Table 6.3 Step-Wise Event History Analysis Predicting Labor Force Entrance Among Married Mothers with Children Under 15**

Parameter	Model 1 Coefficient	Model 2 Coefficient	Model 3 Coefficient	Model 4 Coefficient
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>				
Relative hourly earnings (wife's predicted) <sup>1</sup>				
Husband primary provider	-0.309 ***	-0.282 ***	-0.199 ***	-0.207 ***
Equal providers	R	R	R	R
Wife primary provider	-0.020	0.024	-0.105 **	-0.056
Relative education level <sup>2</sup>				
Husband higher education	0.049	0.063	0.097 *	0.083 *
Equal education	R	R	R	R
Wife higher education	0.350 ***	0.222 ***	0.210 ***	0.216 ***
<b>WORK RELATED VARIABLES</b>				
<b>MOTHER'S MARKET CHARACTERISTICS</b>				
Education level				
Less than high school		-0.485 ***	-0.502 ***	-0.273 ***
High school degree		R	R	R
Some college		0.239 ***	0.298 ***	0.104
College graduate		0.332 *	0.479 *	-0.211
Predicted hourly wages		-0.053 ***	-0.017	0.072 ***
Labor force continuity				
Break in LF for caregiving 6+months <sup>3</sup>				
No break in LF for caregiving		R	R	R
1 to 2 yrs with 6+ month break		-0.077	-0.030	-0.045
3 or more yrs with 6+ month break		-0.457 ***	-0.444 ***	-0.406 ***

**Table 6.3 CONTINUED**

Parameter	Model 1 Coefficient	Model 2 Coefficient	Model 3 Coefficient	Model 4 Coefficient
<b>FAMILY RELATED VARIABLES</b>				
<b>CHILDREN</b>				
Number of children				
One			R	R
Two			0.047	0.073
Three or more			0.009	0.108
Age of youngest child				
Less than 1			0.242 *	0.092
1 to 2			0.233 *	0.139
3 to 5			0.103	0.035
6 to 14			R	R
Child enters household in previous or current wave				
New baby			-0.198 *	-0.275 **
Older child enters			0.445	0.478
<b>TIMING OF LIFE EVENTS</b>				
Age at first birth				
Younger, under 22			0.170 ***	0.118 **
On-time, 22-28			R	R
Older, 29 and over			-0.097 *	-0.032
Missing			0.208 *	0.116
<b>FAMILY ECONOMICS</b>				
Other family income <sup>3</sup>				
Log of other family income			-0.039 *	-0.022
Husband's work hours				
Husband works 65+ hours per week			0.148 *	0.110
Child care costs				
Log of predicted child care costs			-1.062 ***	-1.189 ***

**Table 6.3 CONTINUED**

Parameter	Model 1 Coefficient	Model 2 Coefficient	Model 3 Coefficient	Model 4 Coefficient
<b>DEMOGRAPHIC CONTROLS</b>				
Race and ethnicity				
Minority				-0.056
White, not Hispanic				R
Age				
Continuous variable of age				-0.029 ***
Residence				
Metro residence				-0.040
Move				
Move in previous or current wave				0.164 *
Intercept	-2.241 ***	-1.464 ***	-1.173 ***	-0.976 **
-2 Log Likelihood	13,188.369	13,054.934	12,916.608	12,870.408
X <sup>2</sup>	78.333	211.768	350.094	396.294
Degrees of freedom	4	10	23	27
Number of observations	21,235	21,235	21,235	21,235

Source: 1996 SIPP Panel. Unit of analysis is person-wave.

<sup>1</sup> This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

<sup>2</sup> This measure is calculated using four education categories (less than high school, high school graduate, some college, and college graduate) and comparing the wife's education with the husband's.

<sup>3</sup> Includes only labor force breaks for 6 or more months prior to the start of the panel (ie., Wave 1).

<sup>4</sup> Excludes mother's earnings.

p-values: \* p<.05    \*\* p<.01    \*\*\* p<.001

R= Reference group

The results from Model 1 show that wives are less likely to enter the labor force if their husband has the comparative market advantage, supporting neoclassical economic theory. The effect of a wife being the primary provider is negative, contrary to expectations based on neoclassical economic theory, but is not significant. The effect of relative education also provides mixed support for neoclassical economic theory. Wives who have a higher education level relative to their husbands are more likely to enter the labor force, compared to wives with equal education levels. The effect of the wife having a lower education level than her husband is also positive, but not significant.<sup>15</sup>

Model 2 adds the mother's human capital and job characteristics variables. The effect of a wife's relative earnings basically stays the same, with one exception. By controlling for indicators of a mother's human capital, the effect of the wife being the primary provider becomes positive, although still not statistically significantly associated with a married mother's labor force entrance, lending some support to neoclassical economic theory. The effect of having a husband as the primary provider on a mother's labor force entrance remains negative. With the addition of the work related variables in Model 2, the effect of wife's relative education remains the same. Several of the mother's human capital indicators are correlated with labor force entrances. Having less than a high school education reduces the propensity that a married mother enters the labor force, while having some college or a college degree

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<sup>15</sup> A correlation matrix revealed that several variables have correlations of 0.450 or higher, significant at the 0.05 level. These include husband primary provider and log of other family income (-0.450); wife primary provider and other income less than \$1,500 per month (0.497); log of child care costs and youngest child 1 to 2 (0.504); less than high school and predicted wage (-0.576); log of child care costs and youngest child 6 to 14 (-0.613); log of child care costs and once child (-0.613); and college graduate and predicted wage (0.830).

increases it, consistent with the literature. As a married mother's predicted wages increase, the likelihood of a labor force entrance decreases, controlling only for work related variable. Married mothers who have had several labor force breaks of 6 or more months prior to the start of the panel are less likely to enter the labor force.

In Model 3, the family related variables are added. As in the previous models, wives whose husbands are predicted to be primary providers are still less likely to enter the labor force than wives predicted to be equal providers. However, wives predicted to be primary providers are now significantly less likely to enter the labor force. With the inclusion of family related variables, the positive effect of the husband having a higher education becomes significant. The coefficient for predicted hourly wages is no longer significant, suggesting that family related variables mediate the effect of potential wages.

Mothers with a youngest child under the age of 1 or 1 to 2 years old face higher odds of a labor force entrance, but having a recent addition of a new baby decreases the likelihood of a labor force entrance, controlling only for work and family related variables. Early child bearers are more likely to enter the labor force and late child bearers are less likely compared with mothers who began childbearing on-time (between the ages of 23 and 28).

As other family income increases, married mothers are less likely to enter the labor force, consistent with the literature and neoclassical economic theory. Net of the work and family co-variates (but not the demographic controls), mothers with husbands who work 65 or more hours per week are more likely to enter the labor

force. Higher predicted child care costs decrease the risk of a labor force entrance for married mothers, consistent with the literature.

In model 4, I add demographic controls. Several of the effects of the covariates are changed by this addition, suggesting that the relationships between the demographic controls and labor force entrances are stronger than some of the relationships between work and family related characteristics, as the latter are mediated by the former. (This was not the case for labor force exits shown in Table 5.4, where the inclusion of the demographic controls introduced very few changes.) With the inclusion of the demographic controls, the negative effect of the wife being predicted to be the primary provider loses significance, suggesting that the effect of wife's predicted relative earnings is mediated by one or more of the control variables. Net of the work, family, and demographic control variables, mothers who are married to husbands who are predicted to be the primary provider are less likely to enter the labor force. This relationship holds steady over the four models and is consistent with neoclassical economic theory. The demographic control variables did not change the effect of relative education on a married mother's labor force entrances—wives with higher or lower education levels than their husbands are more likely to enter the labor force than wives with equal education levels.

Model 4 shows that having some college or having a college degree lose significance with the inclusion of demographic controls. However, married mothers with less than a high school degree are significantly less likely to enter the labor force relative to married mothers with a high school degree, all else equal. In Model 4, the coefficient for the predicted wage gains significance and changes sign, becoming

positive. As the mother's predicted wage increases, she is more likely to enter the labor force, net of all the co-variables in the model, consistent with the literature. Having several years (3 or more) with a labor force break of 6 or more months decreases the likelihood of a labor force entrance.

Controlling for work, family, and demographic variables, the number children and the age of the youngest child is not significantly related to labor force entrances for married mothers with children under 15. Yet, a recent new baby decreases the risk of a labor force entrance by 24 percent (odds ratio=0.76, see Appendix Table 6.C). Early child bearers are more likely to enter the labor force, but the inclusion of the demographic controls removed the significance of late child bearing on labor force entrances.

Model 4 shows that the chance of a labor force entrance decreases with higher levels of other family income, but the effect is no longer significant once controlling for demographic variables. The effect of having a husband who works overtime (65 or more hours per week) also loses significance once demographic controls are introduced into the model. The strong negative effect of child care costs gains strength once demographic variables are controlled.

Two of the demographic controls are significantly related to labor force entrances. Experiencing a recent move is positively associated with a labor force entrance. As age increases, married mothers are less likely to enter the labor force.

In sum, Model 4 in Table 6.3 suggests that married mothers' labor force entrances are more about the mothers human capital attributes and labor force commitment than about family considerations. A married mothers education level,

predicted wages, and labor force continuity all are determinants of a labor force entrance, consistent with neoclassical economic theory. However, several of the family related variables—the number and age of children, other family income, and husband’s work hours—are not. Only two family related variables are significant predictors of labor force entrances—having a recent addition of a new baby and higher child care costs discourage labor force entrances. Wife’s predicted relative earnings are correlated with a married mother’s labor force entrance. If the husband is predicted to be the primary provider, the wife stays out of the labor force. Although not significant, if the wife is predicted to be the primary provider, she also stays out of the labor force. The relationship of the wife’s relative education level to labor force entrances is also not straightforward. Wives with higher or lower education levels than their husbands are more likely to enter the labor force than wives who have the same education level as their husbands.

The effect of other family income is in the anticipated direction (negative) but is not significant, controlling for the other co-variables in the model. According to neoclassical economic theory, as other family income rises, married mothers should be less likely to enter the labor force because the higher income allows greater “choice” and lowers the opportunity costs of not working. Because of the possibility of a curvilinear relationship between other family income and labor force exits shown in Chapter 5, I reran the full model with four different specifications of other family income (see Table 6.4).

**Table 6.4 Different Specifications of Other Family Income, Event History Analysis  
Predicting Labor Force Entrances Among Married Mothers with Children Under 15**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>
<b>Different specifications of other family income<sup>1</sup></b>		
<b>MODEL 1</b>		
Log of other family income	-0.022	0.019
Other family income categories		
<b>MODEL 2</b>		
Less than \$1,500	R	
\$1,500 - \$2,999	0.212 ***	0.050
\$3,000 - \$4,499	0.186 *	0.081
\$4,500 or more	0.012	0.078
<b>MODEL 3</b>		
Less than \$1,500	-0.207 ***	0.051
\$1,500 - \$2,999	R	
\$3,000 - \$4,499	R	
\$4,500 or more	-0.184 **	0.060
<b>MODEL 4</b>		
Less than \$1,500	-0.194 ***	0.050
\$1,500 - \$2,999	R	
\$3,000 - \$6,249	R	
\$6,250 or more	-0.308 ***	0.092

Source: 1996 SIPP Panel. Unit of analysis is person-wave.

<sup>1</sup> Excludes mother's earnings.

Note: All models control for variables specified in Table 6.4, with only the specification of other family income changing.

p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001

R= Reference group

Table 6.4 shows that in model 1 the log of other family income has a negative, but not significant relationship with labor force entrances. The second model includes four income groupings, with the reference group being the lowest category, less than \$1,500 per month. Model 2 portrays a positive relationship between other family income and labor force entrances, since all three coefficients are positive, yet

only the two middle categories are significant. However, as shown in Chapter 5, there appears to be a curvilinear relationship between other family income and married mothers' labor force entrances. Model 3 and 4 show that mothers living with very low incomes (less than \$1,500 per month) and mothers with high and very high incomes (\$4,500 or more and \$6,250 or more per month, respectively) have a lower propensity to enter the labor force.

### **Labor force entrance into part-time or full-time work**

Some have speculated that mothers return to work part time as a way of easing back into the labor force after time away (Blank 1989). While others contend that mothers rely on part-time work to ease the second shift, as a strategy to balance work and family (Spain and Bianchi 1996). Given that the expectations and rewards associated with part- and full-time work differ, one would expect that varied factors would predict the time spent in market work for mothers who enter the labor force. Table 6.5 presents a discrete-time event history multinomial model predicting a labor force entrance into part-time or full-time employment versus not entering the labor force.

Predicted wife's relative hourly wages are related to labor force entrances into full-time work, but not into part-time work. Mothers married to men who are predicted to be the primary provider are less likely to enter the labor force full-time than mothers predicted to be equal providers. The effect of a husband predicted to be the primary provider is also negative for part-time employment but is not statistically significant. Taken altogether, this result indicates that the negative effect of a wife's

lower earnings relative to her husband on her likelihood of entering the labor force shown in the full model in Appendix Table 6.C is being driven, in part, by this negative relationship to full-time employment as opposed to part-time employment. The effect of a mother predicted to be the primary provider is not significantly related to her labor force entrance compared with mothers predicted to be equal providers with their husbands. Mothers who have a higher education level than their husbands are more likely to enter the labor force for full-time hours than to remain out of the labor force.

Married mothers who have less than a high school degree are less likely to enter into full-time employment. The effect of having very low educational attainment is also negative for part-time employment but is not statistically significant. On the whole, married mothers with less than a high school degree tend to remain out of the labor force. On the other hand, married mothers with a college degree are less likely to enter into part-time employment. The effect of having a college degree is positive for full-time employment but is not statistically significant. If mothers with a college degree do enter the labor force, they are more likely to enter into full-time employment than part-time employment (see Column 3). However, the effect of predicted wages on part-time employment is positive, suggesting that married mothers who are predicted to attain higher wages may be able to use their higher market value as bargaining power to negotiate part-time employment. Married mothers who have had a break in the labor force for at least six months for care-giving for 3 or more years are less likely to enter the labor force for either part- or full-time hours. This result is consistent with the literature. The more time a married

mother spends out of the labor force to care for family, the less likely she is to enter again, regardless of the number of hours. And if a mother who has had several breaks in employment does reenter, she is more likely to work part-time hours than full-time hours (see Column 3).

Two family related variables—the number of children one has and the age of the youngest child—are not significantly statistically associated with a married mothers labor force entrance into either part- or full-time employment. Having a recent new baby decreases the probability of a married mother entering the labor force for part-time employment. Married mothers who began child bearing at early ages are more likely to enter the labor force full time than remain out of the labor force.

Other family income is not a significant predictor of labor force entrances into part- or full-time employment for married mothers. Neither is having a husband work overtime hours. Mothers who face higher child care costs have a lower propensity to enter the labor force for either part- or full-time work, and married mothers are more likely to work part-time hours than full-time hours as child care costs increase.

Minority married mothers are more likely to enter the labor force for full-time hours. As age increases, married mothers are less likely to enter into part-time employment, but older mothers are less likely to enter into part-time employment than full-time employment if they do enter. Married mothers who live in metropolitan areas are less likely to enter for part-time hours than full-time hours.

**Table 6.5 Discrete-time Event History Analysis Predicting Labor Force Entrance for Employed Married Mothers With Children Under 15, Comparing Entrance into Part-time, Entrance into Full-time, Versus No Entrance**

Parameter	Entrance into Part-time vs. No Entrance <sup>a</sup>		Entrance into Full-time vs. No Entrance <sup>a</sup>		Entrance into Part-time vs. Full-time <sup>a</sup>	
	Coefficient	Standard	Coefficient	Standard	Coefficient	Standard
		error		error		error
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>						
Relative hourly earnings (wife predicted) <sup>1</sup>						
Husband primary provider	-0.131	0.074	-0.334 ***	0.088	0.202	0.112
Equal providers	R		R		R	
Wife primary provider	-0.120	0.099	0.010	0.100	-0.131	0.136
Relative education level <sup>2</sup>						
Husband higher education	0.140	0.076	0.001	0.090	0.138	0.115
Equal education	R		R		R	
Wife higher education	0.130	0.087	0.325 ***	0.094	-0.195	0.124
<b>WORK RELATED VARIABLES</b>						
<b>MOTHER'S MARKET CHARACTERISTICS</b>						
Education level						
Less than high school	-0.126	0.134	-0.469 **	0.145	0.344	0.192
High school degree	R		R		R	
Some college	0.046	0.114	0.164	0.132	-0.118	0.170
College graduate	-0.715 *	0.328	0.453	0.376	-1.168 *	0.485
Predicted hourly wages	0.133 ***	0.040	-0.005	0.046	0.139 *	0.059
Labor force continuity						
Break in LF for caregiving 6+months <sup>3</sup>						
No break in LF for caregiving	R		R		R	
1 to 2 yrs with 6+ month break	0.069	0.106	-0.182	0.126	0.250	0.159
3 or more yrs with 6+ month break	-0.217 **	0.071	-0.667 ***	0.083	0.450 ***	0.106

**Table 6.5 CONTINUED**

Parameter	Entrance into Part-time vs. No Entrance <sup>a</sup>		Entrance into Full-time vs. No Entrance <sup>a</sup>		Entrance into Part-time vs. Full-time <sup>a</sup>	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
<b>FAMILY RELATED VARIABLES</b>						
<b>CHILDREN</b>						
Number of children						
One	R		R		R	
Two	0.079	0.079	0.058	0.088	0.021	0.114
Three or more	0.135	0.100	0.063	0.112	0.072	0.146
Age of youngest child						
Less than 1	0.180	0.126	-0.020	0.144	0.200	0.185
1 to 2	0.105	0.134	0.203	0.151	-0.097	0.196
3 to 5	-0.023	0.104	0.122	0.117	-0.145	0.152
6 to 14	R		R		R	
Child enters household in previous or current wave						
New baby	-0.380 **	0.144	-0.139	0.156	-0.241	0.206
Older child enters	0.043	0.622	0.802	0.454	-0.759	0.742
<b>TIMING OF LIFE EVENTS</b>						
Age at first birth						
Younger, under 22	0.025	0.079	0.242 **	0.089	-0.217	0.116
On-time, 22-28	R		R		R	
Older, 29 and over	-0.018	0.094	-0.060	0.117	0.042	0.147
Missing	-0.069	0.119	0.358 **	0.125	-0.428 *	0.167
<b>FAMILY ECONOMICS</b>						
Other family income <sup>3</sup>						
Log of other family income	-0.018	0.031	-0.024	0.031	0.006	0.043
Husband's work hours						
Husband works 65+ hours per week	0.070	0.099	0.168	0.111	-0.098	0.145
Child care costs						
Log of predicted child care costs	-0.952 ***	0.196	-1.541 ***	0.227	0.589 *	0.291

**Table 6.5 CONTINUED**

Parameter	Entrance into Part-time vs. No Entrance <sup>a</sup>		Entrance into Full-time vs. No Entrance <sup>a</sup>		Entrance into Part-time vs. Full-time <sup>a</sup>	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
<b>DEMOGRAPHIC CONTROLS</b>						
Race and ethnicity						
Minority	-0.293 ***	0.084	0.194 *	0.088	-0.486 ***	0.118
White, not Hispanic	R		R		R	
Age						
Continuous variable of age	-0.042 ***	0.007	-0.014	0.007	-0.028 **	0.010
Residence						
Metro residence	-0.194	0.105	0.153	0.121	-0.347 *	0.155
Move						
Move in previous or current wave	0.116	0.105	0.236 *	0.113	-0.127	0.149
Intercept	-1.723 ***	0.354	-1.603 ***	0.382	-0.120	0.149
-2 Log Likelihood	15,446.590					
Degrees of freedom	56					
Number of observations	21,235					

Source: 1996 SIPP Panel. Unit of analysis is person-wave. p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001 R: Reference group

<sup>1</sup>This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

<sup>2</sup>This measure is calculated using four education categories (less than high school, high school graduate, some college, and college graduate) and comparing the wife's education with the husband's.

<sup>3</sup>Includes only labor force breaks for 6 or more months prior to the start of the panel (ie., Wave 1).

<sup>4</sup>Excludes mother's earnings.

### **Labor force entrances for full-time mothers**

Table 6.6 presents the results from a multinomial discrete-time event history analysis predicting labor force entrances for full-time mothers versus no entrance and for mothers who are nonemployed for other reasons versus no entrance. Recall that full-time mothers are nonemployed because they give as their primary reason for nonemployment either due to pregnancy/childbearing or for the care of children/others. “Other mothers” are not employed for other reasons.

Table 6.6 shows that full-time mothers and other mothers are less likely to enter the labor force if their husband is predicted to be the primary provider. This finding is as expected, as full-time mothers are theorized to gain more from specialization and thus it makes sense that they would not enter the labor force when their husband has the comparative market advantage. None of the coefficients for mother’s predicted to be the primary provider are statistically significant. However, full-time mothers are more likely to enter the labor force if their husband has a higher education level or if they have a higher education level compared with married mothers who have an equal education level as their husband. Mothers who are not employed for other reasons are more likely to enter the labor force if they have higher education levels than their husbands.

**Table 6.6 Discrete-time Event History Analysis Predicting Labor Force Entrance for Employed Married Mothers With Children Under 15, Comparing Entrances from Full-time Motherhood and Other Entrances**

Parameter	Full-time Motherhood		Other Reasons <sup>b</sup>		Full-time Motherhood vs. Other Reasons <sup>b</sup>	
	Reasons <sup>a</sup>		Standard		Standard	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>						
Relative hourly earnings (wife predicted) <sup>1</sup>						
Husband primary provider	-0.195 **	0.064	-0.253 *	0.127	0.058	0.140
Equal providers	R		R		R	
Wife primary provider	-0.126	0.082	0.155	0.142	-0.280	0.160
Relative education level <sup>2</sup>						
Husband higher education	0.130 *	0.066	-0.186	-0.092	0.222	0.144
Equal education	R		R		R	
Wife higher education	0.152 *	0.074	0.443 ***	0.131	-0.291 *	0.147
<b>WORK RELATED VARIABLES</b>						
<b>MOTHER'S MARKET CHARACTERISTICS</b>						
Education level						
Less than high school	-0.390 ***	0.112	0.188	0.210	-0.578 *	0.233
High school degree	R		R		R	
Some college	0.118	0.099	0.050	0.186	0.068	0.206
College graduate	0.064	0.281	-1.328 *	0.535	1.392 *	0.593
Personal earnings						
Predicted hourly wages	0.040	0.035	0.207 ***	0.063	-0.168 *	0.070
Labor force continuity						
Break in LF for caregiving 6+months <sup>3</sup>						
No break in LF for caregiving	R		R		R	
1 to 2 yrs with 6+ month break	-0.060	0.092	0.012	0.176	-0.072	0.194
3 or more yrs with 6+ month break	-0.368 ***	0.061	-0.565 ***	0.116	0.197	0.129

**Table 6.6 CONTINUED**

Parameter	Full-time Motherhood		Other Reasons <sup>b</sup>		Full-time Motherhood vs. Other Reasons <sup>b</sup>	
	Reasons <sup>a</sup>		Standard		Standard	
	Coefficient	Standard error	Coefficient	Standard error	Coefficient	Standard error
<b>FAMILY RELATED VARIABLES</b>						
<b>CHILDREN</b>						
Number of children						
One	R		R		R	
Two	0.146 *	0.067	-0.168	0.125	0.314 *	0.139
Three or more	0.159	0.086	-0.006	0.159	0.165	0.177
Age of youngest child						
Less than 1	0.109	0.108	0.014	0.209	0.095	0.230
1 to 2	0.169	0.113	0.041	0.229	0.128	0.250
3 to 5	0.026	0.089	0.137	0.170	-0.111	0.188
6 to 14	R		R		R	
Child enters household in previous or current wave						
New baby	-0.219	0.116	-0.607 *	0.284	0.388	0.302
Older child enters	0.311	0.472	0.764	0.574	-0.453	0.714
<b>TIMING OF LIFE EVENTS</b>						
Age at first birth						
Younger, under 22	0.071	0.068	0.265 *	0.127	-0.193	0.141
On-time, 22-28	R		R		R	
Older, 29 and over	-0.020	0.083	-0.032	0.160	0.012	0.177
Missing	0.090	0.097	0.243	0.192	-0.154	0.211
<b>FAMILY ECONOMICS</b>						
Other family income <sup>3</sup>						
Log of other family income	-0.039	0.025	0.040	0.050	-0.079	0.054
Husband's work hours						
Husband works 65+ hours per week	0.155	0.083	-0.067	0.171	0.222	0.187
Child care costs						
Log of predicted child care costs	-1.074 ***	0.166	-1.900 ***	0.349	0.826 *	0.380

**Table 6.6 CONTINUED**

Parameter	Full-time Motherhood Reasons <sup>a</sup>		Other Reasons <sup>b</sup>		Full-time Motherhood vs. Other Reasons <sup>b</sup>	
	Coefficient	Standard	Coefficient	Standard	Coefficient	Standard
		error		error		error
<b>DEMOGRAPHIC CONTROLS</b>						
Race and ethnicity						
Minority	-0.077	0.069	0.006	0.127	-0.083	0.142
White, not Hispanic	R		R		R	
Age						
Continuous variable of age	-0.033 ***	0.006	-0.024 *	0.010	-0.009	0.012
Residence						
Metro residence	0.029	0.091	-0.259	0.166	0.288	0.185
Move						
Move in previous or current wave	0.221 **	0.086	-0.104	0.192	0.325	0.206
Intercept	-0.807 **	0.299	-3.944 ***	0.542	3.137 ***	0.605
-2 Log Likelihood	14,782.880					
Degrees of freedom	56					
Number of observations	21,235					

Source: 1996 SIPP Panel. Unit of analysis is person-wave. p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001 R: Reference group

<sup>1</sup>This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

<sup>2</sup>This measure is calculated using four education categories (less than high school, high school graduate, some college, and college graduate) and comparing the wife's education with the husband's.

<sup>3</sup>Includes only labor force breaks for 6 or more months prior to the start of the panel (ie., Wave 1).

<sup>4</sup>Excludes mother's earnings.

Having less than a high school degree is negatively associated with labor force entrances for full-time mothers—these mothers are more likely to remain as full-time mothers than enter the labor force. This finding supports neoclassical economic theory as mothers with very low educational attainment have low employment prospects and as such their actual wages would likely be lower than their reservation wage. The negative effect of very low education on labor force entrances shown in Model 4 in Table 6.3 appears to be driven by full-time mothers, as the effect of very low education has a positive and not statistically significant effect on labor force entrances among other mothers. Higher predicted wages increase the likelihood of a labor force entrance for other mothers, but as their predicted hourly wages increase, full-time mothers are less likely to enter the labor force than other mothers. That predicted hourly wages are not statistically significant predictors of labor force entrances for full-time mothers is contrary to neoclassical economic theory and suggests that full-time mothers do not place the same weight on their potential earnings when making work and family decisions. Recall from Table 6.3 (Model 4) that higher predicted hourly wages are positively associated with labor force entrances. By considering the determinants of labor force entrances for full-time mothers and other mothers, we can see that the positive effect of predicted earnings is driven by the other mothers. Having three or more years in which the married mother had a labor force break of at least 6 months decreases the probability of a labor force entrance for both full-time and other mothers.

Having two children rather than one increases the likelihood that a full-time mother will enter the labor force than remain out, and full-time mothers with two children are more likely than other mothers with two children to enter the labor force. Having a recent new baby decreases the probability that other mothers will enter the labor force. The relationship between having a new baby and labor force exits is also negative for full-time mothers, but not statistically significant. The negative effect seen in Table 6.3 of having a new baby on married mothers labor force entrances seems to be driven by the other mothers.

Higher child care costs discourage labor force entrances for both full-time mothers and other mothers, but as child care costs increase full-time mothers are more likely to enter the labor force than other mothers. As age increases, full-time mothers are less likely to enter the labor force. Experiencing a move is positively associated with labor force entrances for full-time mothers.

Table 6.6 adds to our understanding of labor force entrances from full-time motherhood by clarifying several of the relationships found in the full model (Model 4 in Table 6.3). Full-time mothers do not seem to respond to high potential earnings with a labor force entrance as expected under neoclassical economic theory (the coefficient is positive but not significant). Likewise, the addition of a new baby does not reduce the risk of a labor force entrance for full-time mothers (the coefficient is negative but not significant), suggesting that it is not the event of having a new baby that keeps full-time mothers away from the labor force, having any child is enough.

## Discussion

How do these analyses inform our discussion of married mothers labor force participation? Married mothers labor force entrances are not determined by the wife's (predicted) earnings relative to her husbands and her age at first birth to the same extent as labor force exits. Mothers married to husbands who are the primary provider are less likely to enter the labor force, but the relationship between the wife as the primary provider and labor force entrances is not statistically significant. Labor force entrances appear to be based on the human capital attributes of the mother. As her predicted wages rise, she is more likely to enter the labor force. Having a lower education level reduces the propensity of a labor force entrance. Several breaks in employment to care for children discourage employment. These findings are consistent with neoclassical economic theory. The number of children and age of youngest child are not significant predictors of a labor force entrance, however the addition of a new baby does decrease the likelihood of a labor force entrance. Other family income and whether the husband works overtime hours are not correlated with labor force entrances, but the predicted cost of child care is negatively associated with labor force entrances.

As predicted hourly wages increase, married mothers are more likely to enter the labor force, and they are more likely to enter part-time. This suggests that higher wages may give married mothers more bargaining power when it comes to negotiating the terms of their entrance into market work.

Two determinants of labor force entrances for full-time mothers differ from those for all mothers. Full-time mothers do not seem to respond to high potential

earnings in the same manner as all mothers. Likewise, the addition of a new baby does not reduce the risk of a labor force exit among full-time mothers.

## **Chapter 7: Discussion and Conclusions**

In this dissertation, I set out to investigate the determinants of married mothers labor force participation, in light of the recent downturn in married mothers employment rates and the apparent end in the growth of married mothers labor force participation by answering the questions, “which married women shed their worker role, and which married women take on employment?” Despite the gains women have made in achieving equality with men since the 1950s, women still fall short compared with men on several dimensions of market equality, and several researchers document a stalling out of women’s market equality to men during the 1990s. I began this research wondering why married mothers leave the labor force, especially those who have invested heavily in developing their human capital and careers, and why mothers still find it difficult to balance work and family.

This dissertation focuses on married mothers with children under 15 and examines their labor force transitions. Using the 1996 panel of the Survey of Income and Program Participation (SIPP) longitudinal data, discrete-time event history models were run exploring labor force transitions. Attrition may be a limitation in this research, as 35.5 percent of the sample is lost to attrition over the life of the 12-wave panel. Future research will include a sensitivity test to see whether attrition is an issue for my results.

To guide this research, I looked to three theoretical streams—neoclassical economic theory, the life course perspective, and the gender perspective—to interpret the findings. Rather than set up a competition among the theories, I relied upon all

three to broaden the discussion and understanding of the dynamics involved in labor force decision-making among married couples.

Several important findings emerge from the analyses reported on married mothers labor force exits (in Chapter 5) and on married mothers labor force entrances (in Chapter 6). Chief among them is that wives who outearn their husbands are more likely to exit the labor force, net of family and work-related variables, and demographic controls.<sup>16</sup> Under neoclassical economic theory, the expectation is that the highest earning spouse would specialize in market work. Thus, neoclassical economic theory falls short in explaining this finding. Drawing on the gender perspective however, a higher earning wife's labor force exit can be interpreted as the enactment of gender—primary provider wives exit the labor force as an attempt to neutralize the couple's gender deviance and failure to conform to the expected earnings display. When the wife's relative earnings are interacted with the log of other family income, the main effect of having the wife as a primary provider is large, negative and statistically significant. But in these models, the effect for other family income is also negative and the interaction effect attenuates or softens these two negative main effects. That is, the interaction effect is positive and significant. This suggests that at very high income levels where wives are the primary earners—where one might expect very low exit rates—exit rates are no lower, indeed may be somewhat higher, than for primary earners with somewhat lower family income. These are the married mothers who in essence have the most choice as they can rely on their husbands' earnings and still maintain a comfortable standard of living.

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<sup>16</sup> Wives are classified as being the primary provider if they earn 60 percent or more of the total couple earnings, following Nock's (2001) MEDS classification.

Mothers who outearn their husbands, but are in somewhat lower income families, remain employed. Perhaps these high earning, higher other family income mothers prefer playing in the park with their children over board meetings, but anecdotal evidence (Crittenden 2001) and qualitative research (Blair-Loy 2003; Hays 2001; Hochchilds 1989; Wolf 2001) suggest that these decisions are made in the interest of children, within a rigid system that discourages part-time work, and within a marital relationship where roles and responsibilities along gender lines are sometimes contentious and frequently negotiated. Several researchers note that these couples with primary provider wives did not even contemplate or discuss the possibility of a labor force exit on the part of the lower earning husband relative to the wife. That wives who are the primary providers among the highest income families are more likely to exit the labor force to care for the next generation rather than attempt to break glass ceilings gives reason to pause and wonder—why? This dissertation cannot definitively address the underlying reasons due to data constraints, the variables required to answer that question just are not in the SIPP. Thus, I cannot distinguish whether the labor force exit is a display of gender or due to household economics and affordability.

A question that readily follows, is do these high-earning wives who exit come back to the labor force? The results presented in Chapter 6 are unfortunately inconclusive as mothers who are predicted to outearn their husbands exhibit a negative relationship with labor force entrances, but the relationship is not statistically significant. What is not clear from my results is whether they returned to a job that compensated them at their predicted wage, or their pre-exit rate, or something lower?

Unknown from this research is whether women predicted to outearn their husbands who entered the labor force actually outearned their husbands or did they take a less demanding job or part-time work? This is fertile ground for subsequent analyses.

However, results from Chapter 6 imply that labor force entrances are driven more by the human capital attributes and labor force commitment of the mother than by family considerations. For example, having low educational attainment is negatively associated with labor force entrances, and higher predicted wages are positively associated with entrances, all else equal. In addition, having several years with a labor force break to care for family decreases the likelihood of a labor force entrance. These findings are consistent with the literature and neoclassical economic theory, and suggest that married mothers who have high market value and potentially outearn their husbands will return to the labor force, after a short time away. Only two family related variables are correlated with labor force entrances—having a new baby and higher child care costs both discourage labor force entrances, the number of children and age of youngest child do not.

Another important finding from the labor force entrance models is that the effect of predicted wages on entrances into part-time employment is positive, suggesting that married mothers who are predicted to attain higher wages may be able to use their higher market value to negotiate part-time employment.

I also found that married mothers who begin child bearing at older ages are more likely to exit the labor force. According to neoclassical economic theory, women who delay child bearing invest more in their market value through higher education and work experience, and have higher earnings, so they would be less

likely to exit the labor force because their actual wage would be higher than their reservation wage. That delayed childbearers are more likely to exit the labor force is surprising because one would expect these women to be less committed to childbearing than women who began child bearing at earlier ages as they are expected to have strong ties to the market. My results provide some support for the argument that this higher investment in market value leads married mothers who delay child bearing to believe that they can easily reenter the labor force and that they will not be disadvantaged by a labor force break (Blackburn et al. 1993; Tanigushi 1999). By interacting the age of first birth with personal earnings and education level, I was able to see that mothers who delayed child bearing and were high earners were more likely to exit the labor force, but those with high education were less likely to exit than those with a high school degree. These results lend some support to the notion that the timing of a life event, such as the birth of a first child, can have differential impacts on subsequent life events and transitions. Missing from this analysis is whether delayed child bearers reenter the labor force without suffering downward mobility and whether their high market value actually translates into high earnings after “time off” from the labor force, as the theory speculates. Future research should investigate this possibility.

These findings raise the issue that the process of delayed child bearing may be capturing another phenomena, other than investment in human capital. It is possible to conceive of other reasons why women who postpone childbearing would exit the labor force. Due to the high correlation between age at first marriage and age at first birth, many career-oriented women appear to be delaying both marriage and

childbearing, focusing first on career building and putting family building on the back burner. But they hear the biological clock ticking. Biologically, the likelihood of bearing children decreases with age, thus for women who postpone childbearing, despite their fertility desires and intentions to bear children, the path to attaining children may be paved with frustration, disappointment, and fertility treatments once they do decide to begin family building. Also, the likelihood of twins is greater among older women and has been on the rise in America. The process of delayed child bearing may make these mothers who have greater financial resources (their own and their husbands) have a strong desire to care for their child once it does arrive. It is possible that delayed child bearers could be more committed to childbearing but they are waiting until they have the means to rely on one paycheck prior to family building, by increasing their savings for example. These possibilities merit further investigation and will be explored in future research.

Central to a mother's decision to work is the cost, quality, and availability of child care while she works. This dissertation is only able to include one element of child care in the models—the estimated cost of child care. My results are consistent with the literature, as child care costs rise, mothers are less likely to work outside the home. High maternal earnings can buffer the taxing effect of child care on a mother's earnings, but high earnings cannot buy quality care where it does not exist, and families do not seem to want to have their child(ren) in day care for long hours each day. Both spouses in high-earning dual-career families are likely to have long work hours. High earning mothers facing the prospect of long work hours, married to a high earning husband who also works long hours, may weigh the pros and cons of

long hours of day care and a hectic schedule against a short stint of nonemployment, and decide in favor of the family. As Blair-Loy (2003) argues, the family devotion schema tugs at women and helps them orient their priorities along appropriate breadwinning and domestic roles for men and women. Many of these high-powered women in Blair-Loy's study did not even consider the possibility that their husband would stop working, despite their own higher earnings relative to their husband.

My results are consistent with the literature on the role of a mother's market value (potential or realized) and her job characteristics. Neoclassical economic theory argues that factors that increase the value of a mother's market time, or her wages, increase the probability that she will participate in the labor force. Therefore, factors such as higher education levels, full-time work, and continuous work experience are expected to be positively associated with labor force participation. I find that higher wages decrease the probability of a labor force exit, and predicted higher wages increase the probability of a labor force entrance. I also find the expected negative relationship between education level and labor force exits, but only a lower propensity of a labor force entrance among mothers with low education levels. Taking more time away from the labor force for care-giving prior to the start of the panel increases the odds of a labor force exit and decreases the odds of an entrance.

According to neoclassical economic theory, jobs that are family friendly and flexible would increase the value placed on market work and decrease the reservation wage. Consistent with this theory, I find that mothers who work in the private, not for profit sector, work for the government or are self-employed are less likely to exit

the labor force than their counterparts in the private, for profit sector. Finally, I find that receiving health insurance through your current employer—a proxy for a good job with benefits—decrease the odds of a labor force exit by 68 percent.

### *Implications For Gender Equality*

While my research does not directly examine gender roles and power within relationships, it opens the door for the possibility that marital power and gender may have an underlying role in labor force participation decisions of married mothers. My results have important implications regarding gender equality in the market place and in the home. If money equals power and potentially high-earning mothers are not in the market place, then the very women who are poised to bolster gender equality in the market are not doing it. Thus, Blair-Loy's (2003) viewpoint that the change must come from within the system, initiated by women holding top managerial positions who can advocate effectively for change, is faulty if the very women who need to initiate the change are throwing in the towel so to speak, and not there within the system to advocate for that change. Ironically, women who could improve market equality exit the labor force, and low-earning women who maintain the status quo enter the labor force or remain in. Future research will investigate whether those who exit the labor force return and how their post-labor force exit job compares with their pre-labor force exit job.

However, it is important to keep in mind that although growing in numbers, primary provider wives are not a common family type. I find that only 17 percent of the employed wives in wave 1 are primary providers. Even less common are families

where the wife is the primary provider and their monthly other family income is \$4,500 or more (only 1 percent of employed married mothers in wave 1). Future research will explore the labor force patterns of primary providers wives.

Previous research suggests that the value placed on the work plays a role in whether employment translates into increased status. On the macro level, it is the demand for female labor that appears to generate an increase in women's status and gender equality, rather than the employment per se (Cotter, DeFiore, Hermsen, Marsteller Kowalewski, and Vanneman 1998). On the micro or family level, the valuing of women's paid work by both the husband and the wife has been found to be a necessary condition to achieving a more equitable relationship (Risman and Johnson-Sumerford 1998). Future research should investigate whether gender ideology influences a mother's labor force participation and whether the effect of a wife's relative earnings on her labor force participation is mediated by the spouse's gender ideology.

This research is important because of the relationship between specialization in marriage and familial inequity. The wage penalty associated with motherhood has lasting repercussions in terms of decreased bargaining and marital power, increased dependency and marginalization, and overall power and influence in society.

### *Policy Implications*

This research points to the need for policies that offer mothers and families real choices. If the goal is to facilitate work and family and encourage mothers to remain employed, there are several policy avenues to pursue. I find that married

mothers who have a new baby are more likely to exit the labor force. Paid maternity leave would allow mothers a continued income, decreasing their dependence and enabling them to maintain ties to the labor force, while also allowing them time to care for their newborn. Equally important in maintaining mothers labor force participation is the availability of quality child care at affordable prices. My results show that as child care costs rise, mothers are more likely to exit the labor force and less likely to enter. Another important aspect is creating part-time jobs that offer real avenues for promotion and career advancement, rather than “mommy track” part-time jobs. Mothers who today exit the labor force because they are confronted with the either/or “choice” of full-time or no time, may very well have opted for part-time employment if that option had been available to them.

In sum, this research adds to the body of research on women’s labor force participation in important ways. One key finding is an increased probability of a labor force exit among married mothers who outearn their husbands, with one possible interpretation relying on the gender perspective—wives may neutralize their gender deviance of being the breadwinner through a labor force exit. This effect is mediated by other family income—primary provider wives living in high income families are more likely to exit the labor force than primary provider wives living in low income families. This interaction suggests that families act in an economically rational way—wives who outearn their husbands only exit the labor force when the family can afford to live on the husband’s earnings. This dissertation contributes to the debate on women’s labor force participation, marital power, and gender equality in the market place and the home.

# Appendices

Appendix Table 4.A 1996 Panel, Survey of Income and Program Participation, Rotation Groups, Waves, and Reference Months

Reference Month	Rotation Group				Reference Month	Rotation Group			
	1	2	3	4		1	2	3	4
Dec. 95	W1 1				Dec. 97	W7 1	<i>See Wave 6 data in bottom of first column.</i>		
Jan. 96	W1 2	W1 1			Jan. 98	W7 2			
Feb. 96	W1 3	W1 2	W1 1		Feb. 98	W7 3	W7 2	W7 1	
Mar. 96	<b>W1 4</b>	W1 3	W1 2	W1 1	Mar. 98	<b>W7 4</b>	W7 3	W7 2	W7 1
April 96	W2 1	<b>W1 4</b>	W1 3	W1 2	April 98	W8 1	<b>W7 4</b>	W7 3	W7 2
May 96	W2 2	W2 1	<b>W1 4</b>	W1 3	May 98	W8 2	W8 1	<b>W7 4</b>	W7 3
June 96	W2 3	W2 2	W2 1	<b>W1 4</b>	June 98	W8 3	W8 2	W8 1	<b>W7 4</b>
July 96	<b>W2 4</b>	W2 3	W2 2	W2 1	July 98	<b>W8 4</b>	W8 3	W8 2	W8 1
Aug. 96	W3 1	<b>W2 4</b>	W2 3	W2 2	Aug. 98	W9 1	<b>W8 4</b>	W8 3	W8 2
Sep. 96	W3 2	W3 1	<b>W2 4</b>	W2 3	Sep. 98	W9 2	W9 1	<b>W8 4</b>	W8 3
Oct. 96	W3 3	W3 2	W3 1	<b>W2 4</b>	Oct. 98	W9 3	W9 2	W9 1	<b>W8 4</b>
Nov. 96	<b>W3 4</b>	W3 3	W3 2	W3 1	Nov. 98	<b>W9 4</b>	W9 3	W9 2	W9 1
Dec. 96	W4 1	<b>W3 4</b>	W3 3	W3 2	Dec. 98	W10 1	<b>W9 4</b>	W9 3	W9 2
Jan. 97	W4 2	W4 1	<b>W3 4</b>	W3 3	Jan. 99	W10 2	W10 1	<b>W9 4</b>	W9 3
Feb. 97	W4 3	W4 2	W4 1	<b>W3 4</b>	Feb. 99	W10 3	W10 2	W10 1	<b>W9 4</b>
Mar. 97	<b>W4 4</b>	W4 3	W4 2	W4 1	Mar. 99	<b>W10 4</b>	W10 3	W10 2	W10 1
April 97	W5 1	<b>W4 4</b>	W4 3	W4 2	April 99	W11 1	<b>W10 4</b>	W10 3	W10 2
May 97	W5 2	W5 1	<b>W4 4</b>	W4 3	May 99	W11 2	W11 1	<b>W10 4</b>	W10 3
June 97	W5 3	W5 2	W5 1	<b>W4 4</b>	June 99	W11 3	W11 2	W11 1	<b>W10 4</b>
July 97	<b>W5 4</b>	W5 3	W5 2	W5 1	July 99	<b>W11 4</b>	W11 3	W11 2	W11 1
Aug. 97	W6 1	<b>W5 4</b>	W5 3	W5 2	Aug. 99	W12 1	<b>W11 4</b>	W11 3	W11 2
Sep. 97	W6 2	W6 1	<b>W5 4</b>	W5 3	Sep. 99	W12 2	W12 1	<b>W11 4</b>	W11 3
Oct. 97	W6 3	W6 2	W6 1	<b>W5 4</b>	Oct. 99	W12 3	W12 2	W12 1	<b>W11 4</b>
Nov. 97	<b>W6 4</b>	W6 3	W6 2	W6 1	Nov. 99	<b>W12 4</b>	W12 3	W12 2	W12 1
Dec. 97		<b>W6 4</b>	W6 3	W6 2	Dec. 99		<b>W12 4</b>	W12 3	W12 2
Jan. 98			<b>W6 4</b>	W6 3	Jan. 00			<b>W12 4</b>	W12 3
Feb. 98				<b>W6 4</b>	Feb. 00				<b>W12 4</b>

Note: The cell entry W1 1 represents Wave 1, reference month 1. The last reference month of each wave is in boldface type. For rotation group 1, the reference months for Wave 1 were Dec. 95 through Mar. 96.

Source: SIPP Users Guide

**Appendix Table 4B. Allocation Rates for Selected Variables, Wave File**

<b>Variable</b>	<b>Allocation rate</b>
<b>Dependent variable components</b>	
Paid job	4.4
Reason not working	2.4
Marital status	1.5
Sex	0.1
<b>Independent variables</b>	
Education level	5.6
Hours worked	4.4
Work history topical module <sup>a</sup>	4.0
Class of worker	0.6
Occupation	2.2
Health insurance ownership	18.8
Age at first marriage <sup>a</sup>	9.8
Age at first birth <sup>a</sup>	11.1
Race	3.0
Origin	0.8
Age	1.1

<sup>a</sup>For these topical module data, rates reflect missing data rate.

**Appendix Table 4C. Dependent Variable Construction**

<b>Dependent variables</b>	<b>Variables Used in Construction</b>	<b>Survey Question</b>	<b>Construction</b>
Outcome variable			
Labor Force Exits (LFEXIT)	Paid job in any months of wave, EPDJBTHN	Did ... have at least one job (that is, a job for an employer, a business, or some other work arrangement) during the reference period or interview month?	Looking longitudinally across all waves, when a mother goes from EPDJBTHN=1 (working some months in wave) to EPDJBTHN=2 (not working any months in wave), LFEXIT is coded as 1, otherwise coded 0
Labor Force Entrances (LFENTR)	Paid job in any months of wave, EPDJBTHN	Did ... have at least one job (that is, a job for an employer, a business, or some other work arrangement) during the reference period or interview month?	Looking longitudinally across all waves, when a mother goes from EPDJBTHN=2 (not working any months in wave) to EPDJBTHN=1 (working some months in wave), LFENTR is coded as 1, otherwise coded 0
Labor Force Exits into Stay-at-home motherhood (EXITSHM)	Paid job in any months of wave, EPDJBTHN; Main reason not working during reference period, ERSNOWRK; Marital status, EMS; Child under 15 in household, CLT15	EPDJBTHN question above & Main reason ... did not have a job during the reference period	Looking longitudinally across all waves, when a mother goes from EPDJBTHN=1 (working some months in wave) to EPDJBTHN=2 (not working any months in wave), and ERSNOWRK=5 or 6 (the main reason for not working being pregnancy/childbirth or taking care of children/others), and EMS=1 (married, spouse present), and CLT15=1 (children less than 15 years old), EXITSHM is coded as 1, otherwise coded 0

**Appendix Table 4C. Dependent Variable Construction (Continued)**

<b>Dependent variables</b>	<b>Variables Used in Construction</b>	<b>Survey Question</b>	<b>Construction</b>
Outcome variable			
Labor Force Entrance from Stay-at-home motherhood (ENTRSHM)	months of wave, EPDJBTHN; Main reason not working during reference period, ERSNOWRK; Marital status, EMS; Child under 14 in household, CLT15	EPDJBTHN question above & Main reason ... did not have a job during the reference period	Looking longitudinally across all waves, when a mother goes from EPDJBTHN=2 (not working any months in wave), and ERSNOWRK=5 or 6 (the main reason for not working being pregnancy/childbirth or taking care of children/others), and EMS=1 (married, spouse present), and CLT15=1 (children less than 15 years old), ENTRSHM is coded as 1, otherwise coded 0

**Appendix Table 4D. Independent Variable Coding**

Independent Variables	Survey Question	Coding	Treatment of Missing
<b>Work related measures</b>			
<b>Mother's market value (realized and potential)</b>			
Education level EEDUCATE	What is the highest level of school ... has completed or the highest degree ... has received?	Created dummy variables: Less than high school, high school degree, some college, BA or higher; and to look more closely at highly educated mothers broke out BA or higher into BA and Master's or higher.	Recoded one missing value as less than high school because respondent was 15 years old.
Usual hours worked per week EJBHRS1 & EHR SBS1	How many hours per week did ... usually work at all activities for this job/business?	Created dummy variables: No hours, part-time hours (1-34), and full-time (35 or more).	
Monthly earnings TPEARN	Reaggregated total person's earned income for the reference month after topcoding.	Created dummy variables: Earns less than \$1,500; earns \$1,500 to 2,999; earns \$3,000 to \$4,499; and earns \$4,500 or more. Created continuous variable, log of monthly earnings.	
Predicted hourly wage		Estimated hourly wages using Heckman sample selection technique	

**Appendix Table 4D. Independent Variable Coding Continued**

Independent Variables	Survey Question	Coding	Treatment of Missing Values
Number of years had break in labor force for six or more consecutive months EYRSINC2		Created dummy variables: No break in labor force for at least 6 consecutive months; Break of at least 6 consecutive months for 1 to 2 years (not necessarily consecutive years); Break of at least 6 consecutive months for 3 or more years (not necessarily consecutive years). Labor force experience is for the time prior to the start of the panel.	
<b>Job characteristics</b>			
Occupation TJOCC1 & TBSOCC1	Occupation classification code	Created dummy variable coded 1 if occupation was Manager/Professional; coded 0 otherwise.	Created dummy variable coded 1 if missing occupation; coded 0 otherwise.
Class of worker ECLWRK1	Class of worker	Created dummy variable coded 1 if respondent works for a local, State, or Federal government, or is self employed at own business; coded 0 otherwise.	

**Appendix Table 4D. Independent Variable Coding Continued**

Independent Variables	Survey Question	Coding	Treatment of Missing Values
Health insurance coverage through current job EHEMPLOY & EHOWNER	Source of health insurance (EHEMPLOY) What was the source of ...'s health insurance? AND Covered by own plan or someone else's plan (EHOWNER) Was the coverage in ...'s own name or was ... covered as a family member on someone else's plan, both or neither?	Created dummy variable coded 1 if source of health insurance was current employer or work (EHEMPLOY=1) AND health insurance owner was covered in own name (EHOWNER=1) or covered both in own name and by someone else's plan (EHOWNER=3)	
No health insurance coverage EHOWNER	Covered by own plan or someone else's plan (EHOWNER) Was the coverage in ...'s own name or was ... covered as a family member on someone else's plan, both or neither?	Created dummy variable coded 1 if health insurance owner was not covered (EHOWNER=4)	
<b>Family related measures Children</b>			
Number of children under 15 years old NUMKIDS		Created continuous variable by counting number of related children less than 15 living in household. Then created dummy variables no children; one child; two children; three or more children.	

**Appendix Table 4D. Independent Variable Coding Continued**

Independent Variables	Survey Question	Coding	Treatment of Missing Values
Age of youngest child AGEYOUNG		Created continuous variable by comparing ages of all individuals living in household and selecting the youngest person's age. Then created dummy variables: no children; youngest child less than 1; youngest child 1 to 2 years; youngest child 3 to 5 years; youngest child 6 to 9 years; and youngest child 10 to 14 years. Collapsed categories when appropriate.	
	Birth occurred in previous or current wave	Looking month to month longitudinally and seeing if a new biological or adopted child under the age of 1 entered the family.	
	Child entered the household in previous or current wave (not including a new baby)	Looking month to month longitudinally and seeing if a new biological or adopted child over the age of 1 entered the family.	

**Appendix Table 4D. Independent Variable Coding Continued**

Independent Variables	Survey Question	Coding	Treatment of Missing Values
<b>Timing of events</b>			
Age first birth RAGFBRTH		Created continuous variable that used fertility history topical module age at first birth collected in Wave 2, then added in age for those who had a first birth in the panel. Then created dummy variables based on the mean age of first birth from NCHS vital statistics report for 1996, 1997, 1998 and compared it to the mean age first birth for my sample, with consideration of the confidence interval. Created dummy variables: young age first birth of less than 22; on-time first birth or 22 to 28, inclusive; and older first birth of 29 or older.	Created dummy variable (MISS_FB) coded 1 if missing fertility history topical module data because not in panel at Wave 2 or if missing age first birth data; coded 0 otherwise.
<b>Family economics</b>			
Total other monthly family income, not including mothers earnings    TFTOTINC	Reaggregated total family income for the reference month after topcoding.	Subtracted mothers earnings from total family income. Created dummy variables: less than \$1,500; \$1,500 to 2,999; \$3,000 to \$4,499; and \$4,500 or more. Created continuous variable, log of monthly family income.	

**Appendix Table 4D. Independent Variable Coding Continued**

Independent Variables	Survey Question	Coding	Treatment of Missing Values
<b>Husbands work hours</b>			
Husband works 65 or more hours per week SPHRGE65	How many hours per week did ... usually work at all activities for this job/business?	Created dummy variable coded 1 if husband worked 65 or more hours per week, coded 0 otherwise.	
		Estimated market child care costs using Heckman sample selection technique	
<b>Gender egalitarianism between spouses</b>			
		Created spouse variables. Created continuous variable of wife's earnings to husband's earnings (TPEARN-SPEARN). Then created dummy variables: wife primary provider (if she earns 60% or more of the total couple earnings); equal providers (wife earns between 41 and 59% of total couple earnings); husband primary provider (husband earns 60% or more of total couple earnings).	
Wife's relative earnings to husband TPEARN for wife and spouse			
		Created dummy variables similar to wife's relative earnings to husband using the wife's predicted hourly wage and the husband's actual hourly wage	
Predicted wife's hourly wage relative to husband			

**Appendix Table 4D. Independent Variable Coding Continued**

Independent Variables	Survey Question	Coding	Treatment of Missing Values
<p>Wife's relative education level to husband EEDUCATE for wife and spouse</p>		<p>Created spouse variables and recoded into LTHS, HS, SCOL, CGRAD. Created dummy variables of wife's education to husband's education (EDUC categories relative to SPEDUC). Then created dummy variables: wife lower education than husband; wife equal education to husband; and wife higher education than husband within the categories.</p>	
<b>Controls</b>			
<p>Minority ERACE &amp; EORIGIN</p>		<p>Created Hispanic variable selecting EORIGIN IN (20-28). Created several categorical variables of race: white, non-Hispanic; black, non-Hispanic; other, non-Hispanic; Hispanic. Then created dummy variable of minority choosing ERACE EQ Black (2), Am Ind, Aleut, Eskimo (3), or Asian/Pacific Islander (4), or Hispanic. Otherwise coded as 0, leaving as reference group White, non-Hispanics.</p>	

**Appendix Table 4D. Independent Variable Coding Continued**

Independent Variables	Survey Question	Coding	Treatment of Missing Values
Age TAGE	Age as of last birthday, topcoded	Use continuous variable of age. Created dummy variables of 5 year age groups: 15 to 24; 25 to 29; 30 to 34; 35 to 39; 40 to 44; 45 to 60.	
Nonmetro residence METRO		Created dummy variable for nonmetro residence (METRO = 0)	
Move during the panel EENTAID & SHHADID		Created dummy variable comparing EENTAID (houshold ID when entered the panel) and SHHADID (current household ID). If EENTAID NE SHHADID then family moved.	

Note: All variables are created for current month and previous month.

**Appendix Table 5.A Event History Bivariate Models, Each Variable Alone as Predictor of Labor Force Exit Among Married Mothers with Children Under 15**

Parameter	Coefficient	Standard Error	Likelihood Chi Square
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>			
Relative monthly earnings <sup>1</sup>			286.206 ***
Husband primary provider	0.986 ***	0.065	
Equal providers	R		
Wife primary provider	0.508 ***	0.086	
Relative education level <sup>2</sup>			39.131 ***
Husband higher education	0.220 ***	0.057	
Equal education	R		
Wife higher education	-0.217 ***	0.061	
<b>TIMING OF LIFE EVENTS</b>			
Age at first birth			79.297 ***
Younger, under 22	0.328 ***	0.056	
On-time, 23-28	R		
Older, 29 and over	0.007	0.011	
Missing	0.633 ***	0.082	
<b>WORK RELATED VARIABLES</b>			
<b>MOTHER'S MARKET CHARACTERISTICS</b>			
Education level			211.740 ***
Less than high school	0.727 ***	0.073	
High school degree	R		
Some college	-0.134 *	0.060	
College graduate	-0.451 ***	0.068	
Hours worked (2 separate specifications)			
Hours worked categories			231.692 ***
Part-time	0.739 ***	0.048	
Full-time	R		
Continuous variable of hours worked	-0.029 ***	0.002	289.549 ***
Monthly personal earnings (3 separate specifications)			
Earnings categories			618.563 ***
Less than \$1,500	R		
\$1,500 - \$2,999	-1.230 ***	0.065	
\$3,000 - \$4,499	-1.396 ***	0.112	
\$4,500 or more	-1.309 ***	0.150	
Log of personal monthly earnings	-0.639 ***	0.020	949.546 ***
Monthly earnings per hour worked	-0.127 ***	0.005	1084.726 ***
Labor force continuity			
Break in LF for caregiving 6+months <sup>3</sup>			57.691 ***
No break in LF for caregiving	R		
1 to 2 yrs with 6+ month break	0.054	0.085	
3 or more yrs with 6+ month break	0.401 ***	0.052	

**Appendix Table 5.A CONTINUED**

Parameter	Coefficient	Standard Error	Likelihood Chi Square
<b>JOB CHARACTERISTICS</b>			
Occupation			146.384 ***
Managerial/Professional	-0.662 ***	0.058	
Class of worker			202.237 *
Private for profit	R		
Private not for profit	-0.525 ***	0.095	
Government worker	-0.778 ***	-0.778	
Own business	0.433 ***	0.068	
Health insurance			894.964 ***
Health insurance through husband (or ot	R		
Health insurance through current job	-1.528 ***	0.075	
No health insurance	0.685 ***	0.058	
<b>FAMILY RELATED VARIABLES</b>			
<b>CHILDREN</b>			
Number of children			35.933 ***
One	R		
Two	-0.022	0.054	
Three or more	0.348 ***	0.063	
Age of youngest child			227.512 ***
Less than 1	0.950 ***	0.075	
1 to 2	0.397 ***	0.064	
3 to 5	0.258 ***	0.063	
6 to 14	R		
Child enters household in previous or current wave			
New baby	0.367 ***	0.092	
Older child enters	0.810 *	0.324	
<b>FAMILY ECONOMICS</b>			
Other family income <sup>4</sup> (2 separate specifications)			
Income categories			103.832 ***
Less than \$1,500	R		
\$1,500 - \$2,999	-0.467 ***	0.061	
\$3,000 - \$4,499	-0.672 ***	0.070	
\$4,500 or more	-0.501 ***	0.070	
Log of other monthly family income	-0.096 ***	0.013	45.761 ***
Husband's work hours			
Husband works 65+ hours per week	0.373 ***	0.067	28.600 ***
Child care costs			
Log of predicted child care costs	0.281 **	0.080	12.070 **

**Appendix Table 5.A CONTINUED**

Parameter	Coefficient	Standard Error	Likelihood Chi Square
<b>DEMOGRAPHIC CONTROLS</b>			
Race and ethnicity (2 categories)			
Minority	0.233 ***	0.052	19.178 ***
White, not Hispanic	R		
Race and ethnicity (4 categories)			
White, not Hispanic	R		41.634 ***
Black, not Hispanic	0.099 *	0.084	
Other, not Hispanic	-0.076	0.114	
Hispanic	0.439 ***	0.067	
Age (3 separate specifications)			
Age categories			
15 to 24	0.833 ***	0.089	227.156 ***
25 to 29	0.388 ***	0.071	
30 to 34	R		
35 to 39	-0.244 ***	0.071	
40 to 44	-0.378 ***	0.080	
45 to 60	-0.272 **	0.091	
Continuous variable of age	-0.045 ***	0.003	179.493 ***
Log of Age	-1.642 ***	0.112	210.800 ***
Residence			
Metro residence	0.080	0.060	1.825
Move			
Move in previous or current wave	0.877 ***	0.071	126.509 ***

Source: 1996 SIPP Panel. Unit of analysis is person-wave.

<sup>1</sup>This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

<sup>2</sup>This measure is calculated using four education categories (less than high school, high school degree, some college, and college graduate) and comparing the wife's education with the husband's.

<sup>3</sup>Includes only labor force breaks for 6 or more months prior to the start of the panel (ie., Wave 1).

<sup>4</sup>Excludes mother's earnings.

p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001 R: Reference group

**Appendix Table 5.B Full Model, Event History Analysis Predicting Labor Force Exit  
Among Married Mothers with Children Under 15, Other Family Income Categories**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>Odds Ratio</b>
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>			
Relative monthly earnings <sup>1</sup>			
Husband primary provider	0.285 ***	0.076	1.343
Equal providers	R		
Wife primary provider	0.419 ***	0.069	1.349
<b>WORK RELATED VARIABLES</b>			
<b>MOTHER'S MARKET CHARACTERISTICS</b>			
Education level			
Less than high school	0.367 ***	0.072	1.464
High school degree	R		
Some college	-0.080 *	0.033	0.923
College graduate	-0.111 *	0.053	0.908
Hours worked			
Part-time	-0.087	0.051	0.924
Full-time	R		
Monthly personal earnings			
Log of personal earnings	-0.450 ***	0.025	0.637
Labor force continuity			
Break in LF for caregiving 6+months <sup>2</sup>			
No break in LF for caregiving	R		
1 to 2 yrs with 6+ month break	-0.086	0.068	0.923
3 or more yrs with 6+ month break	0.252 ***	0.036	1.299
<b>JOB CHARACTERISTICS</b>			
Occupation			
Managerial/Professional	-0.103	0.057	0.916
Class of worker			
Private for profit	R		
Private not for profit	-0.379 ***	0.042	0.683
Government worker	-0.370 ***	0.072	0.877
Own business	-0.132 *	0.060	0.688
Health insurance			
Health insurance through husband (or other)	R		
Health insurance through current job	-1.152 ***	0.092	0.320
No health insurance	0.185 ***	0.050	1.220
<b>FAMILY RELATED VARIABLES</b>			
<b>CHILDREN</b>			
Number of children			
One	R		
Two	-0.205 ***	0.043	0.805
Three or more	-0.198 **	0.064	0.803

**Table 5.B CONTINUED**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>Odds Ratio</b>
Age of youngest child			
Less than 1	0.610 ***	0.174	1.820
1 to 2	-0.110 *	0.051	0.865
3 to 5	-0.120	0.072	0.869
6 to 14	R		
Child enters household in previous or current wave			
New baby	0.404 *	0.192	1.494
Older child enters	0.558	0.531	1.692
<b>TIMING OF LIFE EVENTS</b>			
Age at first birth			
Younger, under 22	-0.015	0.055	0.984
On-time, 23-28	R		
Older, 29 and over	0.261 ***	0.040	1.299
Missing	0.254 **	0.088	1.297
<b>FAMILY ECONOMICS</b>			
Other family income <sup>3</sup>			
Less than \$1,500	0.235 ***	0.052	
\$1,500 - \$6,249	R		
\$6,250 or more	0.210 ***	0.040	0.919
Husband's work hours			
Husband works 65+ hours per week	0.293 ***	0.058	1.366
Child care costs			
Log of predicted child care costs	0.483 ***	0.120	1.754
<b>DEMOGRAPHIC CONTROLS</b>			
Race and ethnicity			
Minority	0.220 ***	0.054	1.258
White, not Hispanic	R		
Age			
Continuous variable of age	-0.020 ***	0.003	0.983
Residence			
Metro residence	0.021	0.045	1.019
Move			
Move in previous or current wave	0.516 ***	0.069	1.681
Intercept	0.088	0.181	
-2 Log Likelihood	14,111.809		
X <sup>2</sup>	1,845.216 ***		
Degrees of freedom	33		
Number of observations	51,150		

**Table 5.B CONTINUED**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>Odds Ratio</b>
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Source: 1996 SIPP Panel. Unit of analysis is person-wave.

<sup>1</sup>This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

<sup>2</sup>Includes only labor force breaks for 6 or more months prior to the start of the panel (ie., Wave 1).

<sup>3</sup>Excludes mother's earnings. p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001 R: Reference group

**Appendix Table 5.C Event History Analysis Predicting Labor Force Exit Among Married Mothers with Children Under 15 With Interaction of Wife's Relative Earnings and Log of Other Family Income**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>		
Relative monthly earnings <sup>1</sup>		
Husband primary provider	-0.424	0.373
Equal providers	R	
Wife primary provider	-0.796 **	0.261
Interaction with log of other family income		
Husband primary * log other family income	0.099 *	0.045
Wife primary * log other family income	0.152 ***	0.034
<b>WORK RELATED VARIABLES</b>		
<b>MOTHER'S MARKET CHARACTERISTICS</b>		
Education level		
Less than high school	0.376 ***	0.070
High school degree	R	
Some college	-0.077 *	0.035
College graduate	-0.088	0.054
Hours worked		
Part-time	-0.079	0.051
Full-time	R	
Monthly personal earnings		
Log of personal earnings	-0.444 ***	0.025
Labor force continuity		
Break in LF for caregiving 6+months <sup>2</sup>		
No break in LF for caregiving	R	
1 to 2 yrs with 6+ month break	-0.086	0.070
3 or more yrs with 6+ month break	0.262 ***	0.036
<b>JOB CHARACTERISTICS</b>		
Occupation		
Managerial/Professional	-0.080	0.060
Class of worker		
Private for profit	R	
Private not for profit	-0.375 ***	0.042
Government worker	-0.381 ***	0.072
Own business	-0.130 *	0.058
Health insurance		
Health insurance through husband (or other)	R	
Health insurance through current job	-1.139 ***	0.090
No health insurance	0.182 ***	0.048

**Appendix Table 5.C CONTINUED**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>
<b>FAMILY RELATED VARIABLES</b>		
<b>CHILDREN</b>		
Number of children		
One	R	
Two	-0.216 ***	0.043
Three or more	-0.220 ***	0.057
Age of youngest child		
Less than 1	0.593 **	0.182
1 to 2	-0.153 **	0.050
3 to 5	-0.145	0.079
6 to 14	R	
Child enters household in previous or current wave		
New baby	0.401 *	0.188
Older child enters	0.519	0.522
<b>TIMING OF LIFE EVENTS</b>		
Age at first birth		
Younger, under 22	-0.018	0.053
On-time, 23-28	R	
Older, 29 and over	0.263 ***	0.042
Missing	0.254 **	0.089
<b>FAMILY ECONOMICS</b>		
Other family income <sup>3</sup>		
Log of other family income	-0.221 ***	0.031
Husband's work hours		
Husband works 65+ hours per week	0.312 ***	0.060
Child care costs		
Log of predicted child care costs	0.577 ***	0.102
<b>DEMOGRAPHIC CONTROLS</b>		
Race and ethnicity		
Minority	0.225 ***	0.054
White, not Hispanic	R	
Age		
Continuous variable of age	-0.017 ***	0.003
Residence		
Metro residence	0.020	0.045
Move		
Move in previous or current wave	0.513 ***	0.070
Intercept	1.653 ***	0.275
-2 Log Likelihood		
X <sup>2</sup>		
Degrees of freedom		
Number of observations		

**Table 5.C CONTINUED**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>
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Source: 1996 SIPP Panel. Unit of analysis is person-wave.

<sup>1</sup>This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

<sup>2</sup>Includes only labor force breaks for 6 or more months prior to the start of the panel (ie., Wave 1).

<sup>3</sup>Excludes mother's earnings. p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001 R: Reference group

**Appendix Table 5.D Event History Analysis Predicting Labor Force Exit Among Married Mothers with Children Under 15 With Interaction of Wife's Relative Earnings and Other Family Income Categories**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>		
Relative monthly earnings <sup>1</sup>		
Husband primary provider	0.332 ***	0.098
Equal providers	R	
Wife primary provider	0.797 ***	0.110
Interaction with other family income categories		
Husband primary * other income less than \$1,500	-0.071	0.109
Husband primary * other income \$6,250 or more	0.168	0.288
Wife primary * other income less than \$1,500	-0.651 ***	0.154
Wife primary * other income \$6,250 or more	0.068	0.304
<b>WORK RELATED VARIABLES</b>		
<b>MOTHER'S MARKET CHARACTERISTICS</b>		
Education level		
Less than high school	0.361 ***	0.071
High school degree	R	
Some college	-0.076 *	0.034
College graduate	-0.104 *	0.053
Hours worked		
Part-time	-0.090	0.052
Full-time	R	
Monthly personal earnings		
Log of personal earnings	-0.448 ***	0.025
Labor force continuity		
Break in LF for caregiving 6+months <sup>2</sup>		
No break in LF for caregiving	R	
1 to 2 yrs with 6+ month break	-0.091	0.068
3 or more yrs with 6+ month break	0.251 ***	0.037
<b>JOB CHARACTERISTICS</b>		
Occupation		
Managerial/Professional	-0.104	0.058
Class of worker		
Private for profit	R	
Private not for profit	-0.380 ***	0.042
Government worker	-0.369 ***	0.070
Own business	-0.131 *	0.061

**Appendix Table 5.D CONTINUED**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>
Health insurance		
Health insurance through husband (or other)	R	
Health insurance through current job	-1.153 ***	0.092
No health insurance	0.169 ***	0.050
<b>FAMILY RELATED VARIABLES</b>		
<b>CHILDREN</b>		
Number of children		
One	R	
Two	-0.195 ***	0.043
Three or more	-0.187 **	0.065
Age of youngest child		
Less than 1	0.603 ***	0.175
1 to 2	-0.110 *	0.052
3 to 5	-0.118	0.073
6 to 14	R	
Child enters household in previous or current wave		
New baby	0.402 *	0.191
Older child enters	0.545	0.532
<b>TIMING OF LIFE EVENTS</b>		
Age at first birth		
Younger, under 22	-0.022	0.055
On-time, 23-28	R	
Older, 29 and over	0.263 ***	0.040
Missing	0.252 **	0.088
<b>FAMILY ECONOMICS</b>		
Other family income <sup>3</sup>		
Less than \$1,500	0.414 ***	0.086
\$6,250 or more	0.060	0.259
Husband's work hours		
Husband works 65+ hours per week	0.292 ***	0.058
Child care costs		
Log of predicted child care costs	0.468 ***	0.125
<b>DEMOGRAPHIC CONTROLS</b>		
Race and ethnicity		
Minority	0.212 ***	0.053
White, not Hispanic	R	
Age		
Continuous variable of age	-0.020 ***	0.003
Residence		
Metro residence	0.024	0.045
Move		
Move in previous or current wave	0.514 ***	0.070

**Appendix Table 5.D CONTINUED**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>
Intercept	0.037	0.197
-2 Log Likelihood	14,096.022	
X <sup>2</sup>	1,861.002	
Degrees of freedom	37	
Number of observations	51,150	

Source: 1996 SIPP Panel. Unit of analysis is person-wave.

<sup>1</sup>This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

<sup>2</sup>Includes only labor force breaks for 6 or more months prior to the start of the panel (ie., Wave 1).

<sup>3</sup>Excludes mother's earnings. p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001 R: Reference group

**Appendix Table 5.E Event History Analysis Predicting Labor Force Exit Among Married Mothers with Children Under 15 With Interaction of Wife's Relative Earnings and Age of Youngest Child**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>		
Relative monthly earnings <sup>1</sup>		
Husband primary provider	0.531 ***	0.101
Equal providers	R	
Wife primary provider	0.436 ***	0.130
Interactions		
Husband primary * age of youngest child	-0.042 ***	0.012
Wife primary * age of youngest child	-0.023	0.016
<b>WORK RELATED VARIABLES</b>		
<b>MOTHER'S MARKET CHARACTERISTICS</b>		
Education level		
Less than high school	0.372 ***	0.075
High school degree	R	
Some college	-0.055	0.034
College graduate	-0.008	0.063
Hours worked		
Part-time	-0.083	0.051
Full-time	R	
Monthly personal earnings		
Log of personal earnings	-0.453 ***	0.024
Labor force continuity		
Break in LF for caregiving 6+months <sup>2</sup>		
No break in LF for caregiving	R	
1 to 2 yrs with 6+ month break	-0.097	0.067
3 or more yrs with 6+ month break	0.245 ***	0.038
<b>JOB CHARACTERISTICS</b>		
Occupation		
Managerial/Professional	-0.084	0.058
Class of worker		
Private for profit	R	
Private not for profit	-0.371 ***	0.042
Government worker	-0.382 ***	0.078
Own business	-0.127 *	0.058
Health insurance		
Health insurance through husband (or other)	R	
Health insurance through current job	-1.137 ***	0.094
No health insurance	0.182 ***	0.049

**Appendix Table 5.E CONTINUED**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>
<b>FAMILY RELATED VARIABLES</b>		
<b>CHILDREN</b>		
Number of children		
One	R	
Two	-0.178 ***	0.035
Three or more	-0.127 **	0.040
Age of youngest child		
Continuous variable	0.015	0.014
Child enters household in previous or current wave		
New baby	0.686 ***	0.121
Older child enters	0.822	0.422
<b>TIMING OF LIFE EVENTS</b>		
Age at first birth		
Younger, under 22	-0.023	0.051
On-time, 23-28	R	
Older, 29 and over	0.271 ***	0.045
Missing	0.267 **	0.081
<b>FAMILY ECONOMICS</b>		
Other family income <sup>3</sup>		
Log of other family income	-0.075 ***	0.014
Husband's work hours		
Husband works 65+ hours per week	0.325 ***	0.061
Child care costs		
Log of predicted child care costs	0.185 *	0.094
<b>DEMOGRAPHIC CONTROLS</b>		
Race and ethnicity		
Minority	0.186 ***	0.055
White, not Hispanic	R	
Age		
Continuous variable of age	-0.018 ***	0.002
Residence		
Metro residence	0.087 *	0.037
Move		
Move in previous or current wave	0.505 ***	0.066
Intercept	0.673 **	0.221
-2 Log Likelihood		
X <sup>2</sup>		
Degrees of freedom		
Number of observations		

**Appendix Table 5.E CONTINUED**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>
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Source: 1996 SIPP Panel. Unit of analysis is person-wave.

<sup>1</sup>This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

<sup>2</sup>Includes only labor force breaks for 6 or more months prior to the start of the panel (ie., Wave 1).

<sup>3</sup>Excludes mother's earnings. p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001 R: Reference group

**Appendix Table 5.F Step-Wise Event History Analysis Predicting Labor Force Exit Among Married Mothers with Children Under 15 Showing Change in Age at First Birth**

	Model 1	Model 2	Model 3	Model 4
Parameter	Coefficient	Coefficient	Coefficient	Coefficient
<b>TIMING OF LIFE EVENTS</b>				
Age at first birth				
Younger, under 22	0.266 ***	0.024	0.024	-0.016
On-time, 23-28	R	R	R	R
Older, 29 and over	0.017	0.196 ***	0.180 ***	0.262 ***
Missing	0.367 ***	0.325 ***	0.358 ***	0.258 **
<b>WORK RELATED VARIABLES</b>				
<b>MOTHER'S MARKET CHARACTERISTICS</b>				
Education level				
Less than high school		0.332 ***	0.400 ***	0.381 ***
High school degree		R	R	R
Some college		-0.003	-0.064	-0.080 *
College graduate		0.076	-0.078	-0.096
Hours worked				
Part-time		-0.069	-0.099	-0.079
Full-time		R	R	R
Monthly personal earnings				
Log of personal earnings		-0.464 ***	-0.441 ***	-0.450 ***
Labor force continuity				
Break in LF for caregiving 6+months <sup>1</sup>				
No break in LF for caregiving		R	R	R
1 to 2 yrs with 6+ month break		-0.078	-0.068	-0.081
3 or more yrs with 6+ month break		0.097 **	0.209 ***	0.261 ***
<b>JOB CHARACTERISTICS</b>				
Occupation				
Managerial/Professional		-0.086	-0.087	-0.088

**Appendix Table 5.F CONTINUED**

	Model 1	Model 2	Model 3	Model 4
Parameter	Coefficient	Coefficient	Coefficient	Coefficient
<b>Class of worker</b>				
Private for profit		R	R	R
Private not for profit		-0.398 ***	-0.392 ***	-0.373 ***
Government worker		-0.418 ***	-0.383 ***	-0.381 ***
Own business		-0.145 *	-0.160 **	-0.131 *
<b>Health insurance</b>				
Health insurance through husband (or other)		R	R	R
Health insurance through current job		-0.951 ***	-0.192 ***	-1.137 ***
No health insurance		0.314 ***	-0.198 ***	0.199 ***
<b>FAMILY RELATED VARIABLES</b>				
<b>CHILDREN</b>				
<b>Number of children</b>				
One			R	R
Two			-0.201 ***	-0.217 ***
Three or more			-0.208 **	-0.219 ***
<b>Age of youngest child</b>				
Less than 1			0.762 ***	0.599 **
1 to 2			0.064	-0.145 **
3 to 5			0.005	-0.141
6 to 14			R	R
<b>Child enters household in previous or current wave</b>				
New baby			0.454 *	0.401 *
Older child enters			0.582	0.525
<b>FAMILY ECONOMICS</b>				
<b>Other family income<sup>2</sup></b>				
Log of other family income			-0.096 ***	-0.084 ***
<b>Husband's work hours</b>				
Husband works 65+ hours per week			0.315 ***	0.312 ***
<b>Child care costs</b>				
Log of predicted child care costs			0.431 ***	0.561 ***

**Appendix Table 5.F CONTINUED**

	Model 1	Model 2	Model 3	Model 4
Parameter	Coefficient	Coefficient	Coefficient	Coefficient
<b>GENDER EGALITARIAN COUPLE</b>				
Relative monthly earnings <sup>3</sup>				
Husband primary provider			0.292 ***	0.295 ***
Equal providers			R	R
Wife primary provider			0.218 **	0.299 ***
<b>DEMOGRAPHIC CONTROLS</b>				
Race and ethnicity				
Minority				0.229 ***
White, not Hispanic				R
Age				
Continuous variable of age				-0.018 ***
Residence				
Metro residence				0.018
Move				
Move in previous or current wave				0.518 ***
Intercept	-3.118 ***	0.310 ***	0.257	0.694 ***
-2 Log Likelihood	15,877.73 ***	14,471.00 ***	14,185.93 ***	14,110.24 ***
X <sup>2</sup>	79.30 ***	1,486.03 ***	1,771.09 ***	1,846.78 ***
Degrees of freedom	3	16	28	32
Number of observations	51,150	51,150	51,150	51,150

Source: 1996 SIPP Panel. Unit of analysis is person-wave. p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001 R: Reference group

<sup>1</sup> Includes only labor force breaks for 6 or more months prior to the start of the panel (ie., Wave 1).

<sup>2</sup> Excludes mother's earnings.

<sup>3</sup> This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

**Appendix Table 5.G Event History Analysis Predicting Labor Force Exit Among Married Mothers with Children Under 15 With Interaction of Age at First Birth and Log of Mother's Earnings**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>
<b>TIMING OF PREVIOUS LIFE EVENTS</b>		
Age at first birth		
Younger, under 22	-0.491	0.387
On-time, 23-28	R	
Older, 29 and over	-0.663 *	0.277
Missing	-0.165	0.664
Interactions		
Young first birth * log of earnings	0.073	0.054
Old first birth * log of earnings	0.139 ***	0.042
Missing first birth * log of earnings	0.065	0.094
<b>WORK RELATED VARIABLES</b>		
<b>MOTHER'S MARKET CHARACTERISTICS</b>		
Education level		
Less than high school	0.382 ***	0.068
High school degree	R	
Some college	-0.079 *	0.034
College graduate	-0.099	0.053
Hours worked		
Part-time	-0.082	0.051
Full-time	R	
Monthly personal earnings		
Log of personal earnings	-0.508 ***	0.027
Labor force continuity		
Break in LF for caregiving 6+months <sup>2</sup>		
No break in LF for caregiving	R	
1 to 2 yrs with 6+ month break	-0.086	0.073
3 or more yrs with 6+ month break	0.258 ***	0.036
<b>JOB CHARACTERISTICS</b>		
Occupation		
Managerial/Professional	-0.091	0.060
Class of worker		
Private for profit	R	
Private not for profit	-0.371 ***	0.042
Government worker	-0.382 ***	0.072
Own business	-0.133 *	0.059
Health insurance		
Health insurance through husband (or other)	R	
Health insurance through current job	-1.142 ***	0.090
No health insurance	0.198 ***	0.049

**Appendix Table 5.G CONTINUED**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>
<b>FAMILY RELATED VARIABLES</b>		
<b>CHILDREN</b>		
Number of children		
One	R	
Two	-0.217 ***	0.042
Three or more	-0.220 ***	0.054
Age of youngest child		
Less than 1	0.596 ***	0.179
1 to 2	-0.144 **	0.048
3 to 5	-0.139	0.075
6 to 14	R	
Child enters household in previous or current wave		
New baby	0.402 *	0.189
Older child enters	0.528	0.523
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>		
Relative monthly earnings <sup>1</sup>		
Husband primary provider	0.299 ***	0.087
Equal providers	R	
Wife primary provider	0.296 ***	0.069
<b>FAMILY ECONOMICS</b>		
Other family income <sup>3</sup>		
Log of other family income	-0.085 ***	0.013
Husband's work hours		
Husband works 65+ hours per week	0.308 ***	0.059
Child care costs		
Log of predicted child care costs	0.563 ***	0.098
<b>DEMOGRAPHIC CONTROLS</b>		
Race and ethnicity		
Minority	0.228 ***	0.056
White, not Hispanic	R	
Age		
Continuous variable of age	-0.017 ***	0.003
Residence		
Metro residence	0.017	0.045
Move		
Move in previous or current wave	0.517 ***	0.068
Intercept	1.075 ***	0.279
-2 Log Likelihood	14,104.030	
X <sup>2</sup>	1,852.995	
Degrees of freedom	33	
Number of observations	51,150	

Source: 1996 SIPP Panel. Unit of analysis is person-wave. R: Reference group

Note: Footnotes same as Appendix Table 5.C p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001

**Appendix Table 5.H Event History Analysis Predicting Labor Force Exit Among Married Mothers with Children Under 15 With Interaction of Age at First Birth and Mother's Education**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>
<b>TIMING OF PREVIOUS LIFE EVENTS</b>		
Age at first birth		
Younger, under 22	R	
On-time, 23-28	R	
Older, 29 and over	0.406 **	0.144
Missing	R	
Interaction with education		
Old first birth * less than high school	-0.085	0.290
Old first birth * some college	-0.048	0.179
Old first birth * college graduate	-0.393 *	0.180
<b>WORK RELATED VARIABLES</b>		
<b>MOTHER'S MARKET CHARACTERISTICS</b>		
Education level		
Less than high school	0.387 ***	0.082
High school degree	R	
Some college	-0.088	0.067
College graduate	0.017	0.094
Hours worked		
Part-time	-0.077	0.058
Full-time	R	
Monthly personal earnings		
Log of personal earnings	-0.449 ***	0.027
Labor force continuity		
Break in LF for caregiving 6+months <sup>2</sup>		
No break in LF for caregiving	R	
1 to 2 yrs with 6+ month break	-0.088	0.088
3 or more yrs with 6+ month break	0.265 ***	0.057
<b>JOB CHARACTERISTICS</b>		
Occupation		
Managerial/Professional	-0.090	0.068
Class of worker		
Private for profit	R	
Private not for profit	-0.376 ***	0.099
Government worker	-0.384 ***	0.086
Own business	-0.129	0.074
Health insurance		
Health insurance through husband (or other)	R	
Health insurance through current job	-1.140 ***	0.081
No health insurance	0.211 **	0.069

**Appendix Table 5.H CONTINUED**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>
<b>FAMILY RELATED VARIABLES</b>		
<b>CHILDREN</b>		
Number of children		
One	R	
Two	-0.220 ***	0.060
Three or more	-0.226 **	0.078
Age of youngest child		
Less than 1	0.604 ***	0.094
1 to 2	-0.141	0.106
3 to 5	-0.141	0.083
6 to 14	R	
Child enters household in previous or current wave		
New baby	0.394 ***	0.096
Older child enters	0.535	0.341
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>		
Relative monthly earnings <sup>1</sup>		
Husband primary provider	0.290 ***	0.074
Equal providers	R	
Wife primary provider	0.298 **	0.102
<b>FAMILY ECONOMICS</b>		
Other family income <sup>3</sup>		
Log of other family income	-0.084 ***	0.020
Husband's work hours		
Husband works 65+ hours per week	0.311 ***	0.070
Child care costs		
Log of predicted child care costs	0.581 ***	0.151
<b>DEMOGRAPHIC CONTROLS</b>		
Race and ethnicity		
Minority	0.233 ***	0.061
White, not Hispanic	R	
Age		
Continuous variable of age	-0.018 ***	0.004
Residence		
Metro residence	0.031	0.067
Move		
Move in previous or current wave	0.563 ***	0.076
Intercept		
-2 Log Likelihood	1,843.569	
X <sup>2</sup>	14,113.455	
Degrees of freedom	33	
Number of observations	51,150	

Source: 1996 SIPP Panel. Unit of analysis is person-wave. R: Reference group

Note: Footnotes same as Appendix Table 5.C p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001

Standard errors do not control for within cluster correlations as model did not converge.

**Appendix Table 6.A Event History Bivariate Models, Each Measure Alone as Predictor of Labor Force Entrance Among Married Mothers with Children Under 15**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>Likelihood Chi Square</b>
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>			
Relative hourly earnings (wife predicted) <sup>1</sup>			48.317 ***
Husband primary provider	-0.340 ***	0.053	
Equal providers	R		
Wife primary provider	-0.016	0.063	
Relative education level <sup>2</sup>			42.653 ***
Husband higher education	0.008	0.055	
Equal education	R		
Wife higher education	0.398 ***	0.062	
<b>WORK RELATED VARIABLES</b>			
<b>MOTHER'S MARKET CHARACTERISTICS</b>			
Education level			38.946 ***
Less than high school	-0.270 ***	0.068	
High school degree	R		
Some college	0.133 *	0.059	
College graduate	-0.134	0.069	
Predicted hourly wages	-0.005	0.006	0.738
Labor force continuity			
Break in LF for caregiving 6+months <sup>3</sup>			88.154 ***
No break in LF for caregiving	R		
1 to 2 yrs with 6+ month break	-0.046	0.082	
3 or more yrs with 6+ month break	-0.452 ***	0.050	
<b>FAMILY RELATED VARIABLES</b>			
<b>CHILDREN</b>			
Number of children			29.436 ***
One	R		
Two	-0.138 *	0.054	
Three or more	-0.330 ***	0.061	
Age of youngest child			17.072 ***
Less than 1	0.076	0.075	
1 to 2	-0.159 **	0.061	
3 to 5	-0.180 **	0.061	
6 to 14	R		
Child enters household in previous or current wave			0.946
New baby	-0.017	0.101	
Older child enters	0.366	0.365	

**Appendix Table 6.A CONTINUED**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>Likelihood Chi Square</b>
<b>TIMING OF LIFE EVENTS</b>			
Age at first birth			25.877 ***
Younger, under 22	0.172 **	0.055	
On-time, 22-28	R		
Older, 29 and over	-0.139 *	0.070	
Missing	0.187 *	0.085	
<b>FAMILY ECONOMICS</b>			
Other family income <sup>4</sup> (2 separate specifications)			
Income categories			61.347 ***
Less than \$1,500	R		
\$1,500 - \$2,999	0.134 *	0.065	
\$3,000 - \$4,499	-0.045	0.073	
\$4,500 or more	-0.348 ***	0.071	
Log of other monthly family income	-0.092 ***	0.016	30.358 ***
Husband's work hours (2 separate specifications)			
Husband works 65+ hours per week	0.158 *	0.072	4.706 *
Continuous variable of husband's hours	0.002	0.001	3.669
Child care costs			
Log of predicted child care costs	-0.671 ***	0.076	80.511 ***
<b>DEMOGRAPHIC CONTROLS</b>			
Race and ethnicity			
Minority	-0.016	0.051	0.104
White, not Hispanic	R		
Race and ethnicity (4 categories)			
White, not Hispanic	R		36.055 ***
Black, not Hispanic	0.470 ***	0.090	
Other, not Hispanic	-0.147	0.109	
Hispanic	-0.139 *	0.061	
Age (3 separate specifications)			
Age categories			58.603 ***
15 to 24	0.369 ***	0.086	
25 to 29	0.169 *	0.074	
30 to 34	R		
35 to 39	-0.104	0.070	
40 to 44	-0.104	0.078	
45 to 60	-0.298 ***	0.090	
Continuous variable of age	-0.023 ***	0.003	60.792 ***
Residence			8.579 **
Metro residence	-0.176 **	0.059	
Move			12.077 ***
Move in previous or current wave	0.273 ***	0.076	

**Appendix Table 6.A CONTINUED**

Source: 1996 SIPP Panel. Unit of analysis is person-wave.

<sup>1</sup>This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

<sup>2</sup>This measure is calculated using four education categories (less than high school, high school graduate, some college, and college graduate) and comparing the wife's education with the husband's.

<sup>3</sup>Includes only labor force breaks for 6 or more months prior to the start of the panel (ie., Wave 1).

<sup>4</sup>Excludes mother's earnings.

p-values: \* p<.05    \*\* p<.01    \*\*\* p<.001

R= Reference group

**Appendix Table 6.B Full Model, Event History Analysis Predicting Labor Force Entrance Among Married Mothers with Children Under 15**

<b>Parameter</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>Odds Ratio</b>
<b>GENDER EGALITARIANISM BETWEEN SPOUSES</b>			
Relative hourly earnings (wife predicted) <sup>1</sup>			
Husband primary provider	-0.207 ***	0.040	0.812
Equal providers	R		
Wife primary provider	-0.056	0.044	0.946
Relative education level <sup>2</sup>			
Husband higher education	0.083 *	0.041	1.087
Equal education	R		
Wife higher education	0.216 ***	0.043	1.240
<b>WORK RELATED VARIABLES</b>			
<b>MOTHER'S MARKET CHARACTERISTICS</b>			
Education level			
Less than high school	-0.273 ***	0.071	0.760
High school degree	R		
Some college	0.104	0.092	1.111
College graduate	-0.211	0.255	0.813
Predicted hourly wages	0.072 ***	0.022	1.074
Labor force continuity			
Break in LF for caregiving 6+months <sup>2</sup>			
No break in LF for caregiving	R		
1 to 2 yrs with 6+ month break	-0.045	0.060	0.956
3 or more yrs with 6+ month break	-0.406 ***	0.091	0.665
<b>FAMILY RELATED VARIABLES</b>			
<b>CHILDREN</b>			
Number of children			
One	R		
Two	0.073	0.063	1.075
Three or more	0.108	0.078	1.113
Age of youngest child			
Less than 1	0.092	0.099	1.097
1 to 2	0.139	0.093	1.150
3 to 5	0.035	0.075	1.035
6 to 14	R		
Child enters household in previous or current wave			
New baby	-0.275 **	0.089	0.760
Older child enters	0.478	0.270	1.613

**Appendix Table 6.B CONTINUED**

Parameter	Coefficient	Standard Error	Odds Ratio
<b>TIMING OF LIFE EVENTS</b>			
Age at first birth			
Younger, under 22	0.118 **	0.040	1.126
On-time, 22-28	R		
Older, 29 and over	-0.032	0.050	0.968
Missing	0.116	0.091	1.127
<b>FAMILY ECONOMICS</b>			
Other family income <sup>3</sup>			
Log of other family income	-0.022	0.019	0.978
Husband's work hours			
Husband works 65+ hours per week	0.110	0.067	1.116
Child care costs			
Log of predicted child care costs	-1.189 ***	0.150	0.304
<b>DEMOGRAPHIC CONTROLS</b>			
Race and ethnicity			
Minority	-0.056	0.054	0.945
White, not Hispanic	R		
Age			
Continuous variable of age	-0.029 ***	0.004	0.971
Residence			
Metro residence	-0.040	0.057	0.962
Move			
Move in previous or current wave	0.164 *	0.070	1.184
Intercept	-0.976 **	0.304	
-2 Log Likelihood	12810.221		
X <sup>2</sup>	417.819		
Degrees of freedom	30		
Number of observations	21280		

Source: 1996 SIPP Panel. Unit of analysis is person-wave.

<sup>1</sup>This measure follows Nock's (2001) classification of marriages of equally dependent spouses (MEDS) where the husband is the primary provider if the wife earns less than 40 percent of the combined wife and husband earnings; they are equal earners if the wife earns between 40 and 59 percent of the combined earnings; and the wife is the primary earner if she earns 60 percent or more of the combined earnings.

<sup>2</sup>This measure is calculated using four education categories (less than high school, high school graduate, some college, and college graduate) and comparing the wife's education with the husband's.

<sup>3</sup>Includes only labor force breaks for 6 or more months prior to the start of the panel (ie., Wave 1).

<sup>4</sup>Excludes mother's earnings.

p-values: \* p<.05 \*\* p<.01 \*\*\* p<.001

R= Reference group

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