# No-Fault Divorce Laws and the Labor Supply of Women with and without Children

Katie R. Genadek Wendy A. Stock Christiana Stoddard

## ABSTRACT

We use a difference-in-difference-in-difference estimator to compare changes in labor force participation, weeks, and hours of work associated with nofault divorce laws, allowing for differential responses for married women with and without children. Although other research has found that the labor supply of women in general does not respond to no-fault divorce laws, we find that no-fault divorce laws are associated with increases in the labor supply of married mothers relative to married nonmothers, even after controlling for changes in female labor supply in states without no-fault divorce laws and for property division rules associated with the laws.

"I feel somewhat foolish that I left myself without independent financial means. Why are so many young professional women—including just about all of my friends who are mothers, every one an heir to feminism and some the children of divorce—failing to take a hard-nosed view of what might happen down the line?" (Trubek 2004)

# I. Introduction

Female labor force participation (LFP) rates increased dramatically following World War II and, as shown in Figure 1, the increase in LFP occurred among nonmothers, mothers with older children, and mothers with young children.

Katie R. Genadek is a former master's student, Wendy A. Stock is a professor, and Christiana Stoddard is an assistant professor in the Department of Agricultural Economics and Economics, Montana State University. The authors are grateful for comments from Daniel Hamermesh, Robert Fleck, seminar participants at Montana State University, and two anonymous referees. The data used in this article can be obtained beginning August 2007 through July 2010 from Wendy Stock, Department of Agricultural Economics and Economics, P.O. Box 172920, Montana State University, Bozeman, MT 59717-2920 <wstock@montana.edu>[Submitted December 2005; accepted May 2006]

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#### Figure 1

## Female Labor Force Participation Rates over Time

Source: Authors' calculations based on 1960–90 United States Census of Population, available from IPUMS-USA (Ruggles et al. 2004). Data include married (spouse present) women aged 19–49.

For working mothers, hours worked also increased dramatically during the period, as shown in Figure 2. These two trends, coupled with dramatically rising divorce rates (see Figure 3), have prompted many researchers to examine the concurrent relationship between divorce and female labor supply. Such research, however, has been plagued by endogeneity problems. We show that no-fault divorce laws are associated with increases in the labor supply of married mothers relative to married nonmothers, even after controlling for changes in female labor supply in states without no-fault divorce laws and for differences in property division rules associated with the laws.

As noted by Becker, Landes, and Michael (1977), greater earnings ability among women increases their opportunity costs of being married. Wives working outside the home may also invest less in marriage-specific capital than their nonworking counterparts, reducing the gains from marriage for both men and women. These factors suggest that the increase in LFP among women may be a causal factor that leads to increased divorce rates. However, causality may also move in the other direction. Married women who anticipate divorce may engage in more labor market work either to maintain relative income stability given the losses in spousal income and other costs that occur with divorce, or to raise the opportunity cost of divorce for their husbands. As more women observe the incidence and impacts of divorce among others, they may adjust their expectations regarding the risk and costs of divorce



# Figure 2

# Female Annual Hours Worked Over Time

Source: Authors' calculations based on 1960–90 United States Census of Population, available from IPUMS-USA (Ruggles et al. 2004). Data include married (spouse present) labor force participants aged 19–49.

upward, and subsequently increase their labor supply while married to insure financial independence.

Given the endogeneity between divorce and female labor supply decisions, researchers have exploited exogenous changes in divorce laws across time and states to proxy for changes in divorce risk and thus utilized a quasi-natural experiment framework to study the effect of divorce on female labor supply.<sup>1</sup> Divorce laws changed dramatically in the United States during the 1970s, when many states switched from laws based on fault and/or mutual agreement to laws based on no-fault and/or unilateral decisions. Because mutual agreement between a husband and wife is not required under no-fault divorce regimes, no-fault laws reduce the cost of divorce and thus may increase its incidence.

This paper is novel in its use of a difference-in-difference (DDD) estimator to compare changes in labor force participation, weeks, and hours worked over time among married women with children relative to married women without

<sup>1.</sup> Some researchers have turned to other instrumental variables to measure divorce risk. For example, Bedard and Deschenes (2005) use the sex composition of children to instrument for divorce risk (based on findings that male children are associated with fewer divorces), finding that risk of divorce increases female labor force participation.



# Figure 3

## Percent of Females who are Divorced

Source: U.S. Census Bureau (2003) "Mini-Historical Statistics, No. HS-11. Marital Status of the Population by Sex: 1900–2002." Statistical Abstract of the United States: 2003. Available at: <u>http://www.</u>census.gov/statab/hist/HS-11.pdf.

children in states that pass no-fault divorce laws. The empirical approach controls for similar changes in the labor supply behavior over time among married women with and without children in states without changes in divorce laws.

Previous research on the effects of no-fault divorce laws on labor supply has tended to examine all women together, and this has led to a puzzle in the literature. The positive relationship between divorce and female labor supply is well established (see, for example, Johnson and Skinner 1986). There is also some empirical support for a positive relationship between no-fault divorce laws and divorce rates (Allen 1992; Ellman and Lohr 1998; Friedberg 1998; Brinig and Buckley 1998; and Wolfers 2003).<sup>2</sup> However, research examining the impact of no-fault divorce laws on female labor supply has not consistently found the positive relationship that the two associations above would imply. Some cross sectional studies have found a positive relationship between no-fault laws and labor supply (Johnson and Skinner 1986; Peters 1986, 1992; Parkman 1992; and Chiappori, Fortin, and Lacroix 2002). However, after accounting for time trends and state fixed effects, Gray (1998) finds no significant effect of no-fault divorce laws on female LFP. He does, however, find

<sup>2.</sup> Others (Gray 1998, for example), however, find no relationship between no-fault divorce laws and divorce rates.

differences in female LFP associated with differences in property division rules across states, a result that we discuss further below.

One possible explanation for the mixed estimates of no-fault divorce laws' influence on female LFP is that previous research has not allowed the effects of the laws to vary across different types of women. Instead, it estimates average responses across individuals who are more and less likely to be affected by the policy. The presence of young children is potentially one of the most important sources of heterogeneous responses to changes in divorce laws. For example, literature on the economics of the family indicates that children, particularly younger children, negatively impact both women's labor supply<sup>3</sup> and the probability of divorce.<sup>4</sup> In addition, divorce is likely to be especially relevant to mothers because of the added cost of potentially supporting a family in the event of divorce, ceteris paribus.

There are a number of theoretical arguments for why mothers may have larger responses to no-fault divorce laws than nonmothers. The Coase Theorem (Coase 1960) predicts that no-fault divorce laws merely reallocate the property right to the marriage among the spouses. As a result, changes in the law, ceteris paribus, should not affect divorce rates. Rather, in a marriage that is efficient (that is, the sum of the wife's and husband's values of being married exceeds the sum of their values of being divorced), changes in the property right would simply result in side-payments from one spouse to another. These transfers may be monetary, or they may be related to a members' allocation of time between work, leisure and household production.

However, the transaction costs associated with household bargaining are likely to be higher for mothers than nonmothers. Because they spend a disproportionate amount of time in child-rearing and other marriage-specific investments, for example, it is likely that more of their wealth is embodied in their husband's human capital. In this case, a marriage that is efficient may be dissolved under a change to a nofault regime if the wife cannot make the side-payments necessary to induce her husband to stay. As a result, a change in divorce laws may have a disproportionate effect on mothers or other women whose wealth is marriage-specific. Furthermore, if bargaining over LFP decisions is also a mechanism used to make transfers to preserve marriages, it may be that the negotiated decisions are different for married women with children than for married women without children. In addition, even if the laws do not disproportionately change divorce risk for mothers, divorce is more costly for them due to the more substantial costs of caring for young children. Mothers of young children also have larger income elasticities than nonmothers, causing them to have larger responses to changes in expected nonlabor income. Therefore, mothers with young children are expected to disproportionately respond to no-fault divorce laws relative to married women without children.

The implication is that the impact of a no-fault divorce law on the marginal female entrant could be larger than suggested by previous research, particularly because

<sup>3.</sup> See, for example, Mincer (1962); Gronau (1988); Fuchs (1989); Klerman and Leibowitz (1990, 1994); Korenman and Neumark (1992); Shapiro and Mott (1994); Leibowitz and Klerman (1995); Angrist and Evans (1998); and Jacobson, Pearce, and Rosenbloom (1999).

<sup>4.</sup> Research by Cherlin (1977); Koo, Suchindran, and Griffith (1984); Morgan and Rindfuss (1985); Waite and Lillard (1991); and Weiss and Willis (1997), all find that the presence of young children reduces the probability of divorce.

only a few individuals are likely to be on the margin between divorce and remaining in a marriage or on the margin between working and not working. Separating the effects of no-fault divorce laws on mothers and nonmothers allows for a cleaner test of whether such laws affect individuals at the margin. We further separate mothers into those who are mothers of young children and mothers of older children, again assuming that these groups may be differentially affected if transactions costs, bargaining outcomes, income elasticities, and costs of caring for children vary among these groups of women.

Our findings indicate that married mothers have greater labor supply responses to no-fault divorce laws than nonmothers in states with such laws, even after controlling for differences over time in labor supply among married women with and without children in states without no-fault divorce laws. For married women with children, the laws are associated with a roughly 2 percent *higher* probability of being in the labor force, and a roughly 25 hour increase in annual hours worked among market participants with children under two years old. For their counterparts without children, the laws are associated with a roughly 3 percent *lower* probability of LFP and no statistical difference in annual hours worked among market participants. The effects are larger among women with younger children than women with older children, consistent with the hypothesis that mothers with young children differentially respond to no-fault divorce laws because of differences in their relative transactions costs, bargaining outcomes, income elasticities, and costs of caring for children.

# **II.** Theoretical and Empirical Framework

Two strands of theory provide a framework for examining the relationship between no-fault divorce laws and female labor supply: bargaining models and pooled models of household allocation. The two models suggest that it is possible for mothers and nonmothers to have different responses to no-fault laws for several reasons: (1) these groups may vary in terms of who holds the property right to a marriage; (2) negotiations over wives' allocation of time may be different for childless couples than for couples with children; (3) transactions costs and hence changes in divorce probabilities may vary for these two groups; and (4) mothers have a more elastic labor supply response to spousal income than nonmothers. Not all of these need be true, but together the models suggest that averaging the labor-supply responses of mothers and nonmothers may not provide good estimates of the effect of no-fault laws on the marginal participant.

First, bargaining models of marriage suggest that mothers and nonmothers vary in terms of who holds the property right to the marriage and in the resultant marriagepreserving allocation. No-fault laws transfer the property right to the marriage from the partner whose value of the marriage is relatively high to the partner whose value of divorce is relatively high. Typically, this has been interpreted to mean a transfer of the property right from the wife to the husband, as wives typically have more marriage-specific human capital. However, that may not be the case for spouses without children if women without children make fewer marriage-specific investments. As a result, while a no-fault law passage may disproportionately shift the property right from women to men for families with children, resulting in more side payments from mothers to fathers, there may be no consistent change among childless couples.

Second, childless couples and couples with children may vary in terms how they bargain over the wife's allocation of time across leisure, work, and household production. For example, Gray (1998) finds that legal policies that allocate marital resources based on a common-law framework (which historically have favored the husband) tend to be associated with decreases in wives' labor force participation, while community property policies (which tend to favor the wife) are associated with increases in wives' labor force participation. Gray asserts that these changes reflect the higher bargaining power of wives in community property states. The implication of this assertion would be that wives prefer to engage in market work while husbands' and wives' preferences for wives' activities are likely to vary by whether or not a family has children and by the age of those children. This implies that the negotiated labor force participation decision that results from a change in divorce law could differ across classes of women depending on specific assumptions about relative preferences among the spouses.

Third, childless couples and couples with children may vary in terms of transactions costs associated with bargaining, and therefore in terms of the probability of divorce. The presence of children is associated with reductions in women's labor force participation, implying that mothers have more wealth embodied in their husband's human capital. They also may have more of their assets in other marriage-specific investments. The implication would be that while no-fault laws might lead to no change in divorce rates for couples that can make efficient transfers, couples where wives' ability to make these transfers is more limited might experience higher divorce rates. Mothers may therefore experience a relatively larger change in the probability of divorce following the passage of a no-fault law or may have to make larger LFP or other types of transfers to avert divorce, both of which would imply larger behavioral responses for mothers than nonmothers.

Fourth, pooling models of household resource allocation focus on the effect of changes in nonlabor income in the LFP decision. In this framework, the impact of a no-fault law on mothers and nonmothers comes from directly comparing the potential impact of the law on women's reservation wages in the standard utility maximization model (Mincer 1962 and Heckman 1974). Ceteris paribus, increases in the probability of divorce will have a negative effect on expected spousal income, which reduces a married woman's reservation wage and increases her likelihood of LFP. For women already in the labor force, the reduction in spousal income would generate a negative income effect and thus be associated with increases in labor supply (for example, more hours worked, more weeks worked, or both). Consistent with the paper's introductory quote, increases in women's labor supply in this context can be viewed as action to ensure independent financial means in the face of an increased risk of a loss of expected nonlabor income.

Even if expectations regarding the impact of the laws on the likelihood of divorce are the same for all women, the nonlabor income losses associated with divorce may have larger effects on mothers for several reasons. Research by Blau and Kahn (2005) and Stoddard and Stock (2005) has found that mothers' labor supply elasticities in response to nonlabor income changes are larger than nonmothers' responses.

These labor supply elasticities also vary by age of the child, and are largest for mothers of young children. Finally, losses associated with divorce may also have a larger effect on mothers because of the high opportunity and monetary costs of raising children. This effect may be more pronounced among mothers of younger children because the cost of care is larger for younger than for older children (due to the higher direct time costs associated with their care, and because childcare costs for children not in school are higher for younger than for older children, for example).<sup>5</sup>

#### A. Using Divorce Laws

Because no-fault divorce laws changed differently across time and states, they generate a useful quasi-natural experiment for examining their effects on female labor force participation. We compare mothers in states with and without no-fault divorce laws to women without children in these states in 1960–90, the period during which the laws were changing. Thus, the treatment group is comprised of mothers in states that move to unilateral no-fault divorce regimes, and the comparison groups are nonmothers in those states, as well as all married women in states that only allow mutual consent divorces.

Empirically estimating the differential changes in labor supply associated with nofault laws for married women with and without children is done using Equation 1. We use a DDD estimator to measure the differential impact of the laws on married mothers' labor supply relative to that of married nonmothers, while controlling for similar differences among married women with and without children in states without no-fault divorce laws.

(1) 
$$\begin{aligned} \mathbf{Y}_{ist} &= \alpha + \beta_1 nofault_{st} + \beta_2 child(u2)_{ist} * nofault_{st} + \beta_3 child(2-5)_{ist} * nofault_{st} \\ &+ \beta_4 child(6-18)_{ist} * nofault_{st} + \beta_5 child(u2)_{ist} + \beta_6 child(2-5)_{ist} \\ &+ \beta_7 child(6-18)_{ist} + \beta_X X_{ist} + \beta_s I_s + \beta_t I_t + e_{ist} \end{aligned}$$

The variable  $Y_{ist}$  alternately represents labor force participation, weeks worked last year, hours worked last week, or annual hours worked for individual *i* in state *s* in year *t*. Each of the three *child*<sub>ist</sub> variables is equal to one if a woman's youngest child is in the age range specified in the parenthesis, and the variable *nofault*<sub>st</sub> indicates whether the individual resides in a state with a no-fault divorce law at time *t*. We classify all women without children under age 19 as nonmothers (estimates that exclude women with children over 19 from the comparison group generate qualitatively similar results). Demographic and income control variables for the individual are denoted by the vector  $X_{ist}$ , which includes nonlabor income, nonlabor income squared, age, age-squared, race, and education level. In some specifications, we also include an indicator of urban residence.<sup>6</sup>

<sup>5.</sup> This is consistent with work by Cherlin (1977); Koo, Suchindran, and Griffith (1984); Morgan and Rindfuss (1985); Waite and Lillard (1991); and Weiss and Willis (1997).

<sup>6.</sup> A variable that classifies households as urban or rural is not consistently available for all states in all years of our Census data. We thus estimated Equation 1 separately for the subset of states for which we could consistently measure urban/rural status; the results are qualitatively similar to those reported in the text.

Note that the wage is not observed for women not participating in the labor force. Because we are not interested in estimating wage elasticities, we take a reduced form approach and include only demographic characteristics. This is similar to the approach taken by others, including Buchmueller and Valletta (1999); Jakubson (1988); and Blank (1988).<sup>7</sup>

Finally, the variables  $I_s$  and  $I_t$  are state-specific and time-specific dummy variables included to control for differences in states that are common across years and differences across time that are common to all states. In some specifications, we also include state-by-year fixed effects to control for any effect specific to a state and year. However, because the state-year interaction terms are perfectly collinear with *nofault<sub>st</sub>*, they preclude estimation of  $\beta_1$ . Because the coefficients on the other variables of interest are similar in these specifications, we do not report these results in the tables.

The coefficient on *nofault<sub>st</sub>* ( $\beta_1$ ) estimates the difference in *Y* between childless married women in no-fault and fault states. If, for example, no-fault laws increase divorce risk for childless women and increased divorce risk generates increases in their LFP,  $\beta_1$  will be positive. The coefficients on the *child<sub>ist</sub>* variables ( $\beta_5$ ,  $\beta_6$  and  $\beta_7$ ) are predicted to be negative because children are associated with decreases in female labor supply. Because the relationship between fertility and labor supply may differ for women with older versus younger children, the three *child<sub>ist</sub>* variables allow for varied labor supply outcomes by the age of youngest child (Blau and Robins 1988). In some specifications, we instead pool the effects for women with children under six in order to better compare our results with those in the existing literature.

The differential impacts of the divorce laws on married women with children are measured by  $\beta_2$ ,  $\beta_3$  and  $\beta_4$ , the coefficients on the interaction terms between *nofault<sub>st</sub>* and the three *child<sub>ist</sub>* variables. If, for example, the positive impact on labor supply of living in a no-fault state is larger for women with children than for women without children, the estimates of  $\beta_2$ ,  $\beta_3$  and  $\beta_4$  will be positive. Alternatively, these coefficients can be interpreted as the effect on a mother of being in a no-fault state instead of a fault state: while having a child may reduce labor supply ( $\beta_5$ ,  $\beta_6$  and  $\beta_7$  are negative), the labor supply reduction may be smaller in a no-fault state ( $\beta_2$ ,  $\beta_3$  and  $\beta_4$  are positive). In addition, if no-fault laws affect mothers of young children differently than mothers of older children, these effects will vary with the age of the youngest child, similar to the variation in the coefficients of the *child<sub>ist</sub>* variables.

The differencing method used in Equation 1 addresses a number of potentially important endogeneity issues. Married women's labor supply decisions are strongly influenced by the presence of children, and fertility decisions are likewise influenced by labor force decisions. The presence of children is usually associated with decreases in women's LFP, either through its influences on market wages,<sup>8</sup> because of lower take home pay due to child care costs,<sup>9</sup> or through its influence on reservation

<sup>7.</sup> Estimates of the *annual hours worked* regression that include controls for wages and occupation generated results that are qualitatively consistent with those presented in Table 6.

<sup>8.</sup> See, for example, Mincer (1962); Gronau (1988); Fuchs (1989); Klerman and Leibowitz (1990, 1994); Korenman and Neumark (1992); Shapiro and Mott (1994); Angrist and Evans (1998); and Jacobson, Pearce, and Rosenbloom (1999).

<sup>9.</sup> See, for example, Blau and Robins (1988), Connelly (1992) and Kimmel (1998).

wages.<sup>10</sup> Thus, examining the LFP behavior of mothers relative to nonmothers raises important selection issues. The DDD estimator will mitigate this problem, however, because it also controls for LFP changes among mothers in states without changes in the laws.

Similarly, fertility and divorce are also simultaneously determined. The anticipation of divorce is likely a factor in the choice to have children, and the probability of marital disruption has strong negative effects on child-bearing (Fan 2001). Couples in unstable marriages are less likely to have children than those in more stable relationships, and unstable couples also have greater lengths of time between births (Lillard and Waite 1993). Again, the DDD estimator helps to mitigate this endogeneity because it allows for comparisons of labor market outcomes of mothers and nonmothers in states with and without exogenous changes in divorce laws, rather than examining outcomes associated with (endogenous) divorce itself. We discuss the potential confounding effects of endogenous fertility in response to changes in divorce laws below, where we argue that such responses do not appear to drive our results.

By using multiple years of data, the DDD estimator also controls for the potential endogeneity of the laws themselves. If there are permanent differences in characteristics of states, the differencing strategy will account for these permanent differences by looking only at changes in LFP rates, rather than differences in the levels. As shown in Table A1, there appear to be no significant differences in average LFP rates among married women with younger children, older children, and no children in states with and without no-fault divorce laws, alleviating concern that pre-existing differences in the LFP of mothers in states that did and did not pass laws drives our results.

Finally, it is possible that expectations about child support also influence the labor supply decisions of mothers. Our differencing approach compares mothers and nonmothers in states with and without divorce laws. If child support policies and divorce laws change together, our estimator cannot separately identify each effect on married mothers' labor supply. Thus, the estimated coefficients presented below reflect the net impacts of the package of no-fault divorce policies, including both changes in divorce risk and any possible changes in child support payments that may have been enacted congruently with no-fault divorce laws.

# **III.** Divorce Laws

In order to examine the impact of changes in divorce risk on the labor supply of married women, the analysis exploits cross-state and cross-time variation in divorce legislation. These laws are summarized in Table 1. Before the 1970s, divorce laws were primarily based on the English common law system and had little variation from one state to another. In the majority of states, a court was required to grant a divorce based on the guilty actions of a husband or wife and to allocate assets accordingly (Weitzman 1985). Column 1 of Table 1, which denotes the primary law specification used in this paper, illustrates that California, Nevada, and Vermont were among the first states to pass no-fault divorce laws. Similar legislation

<sup>10.</sup> See, for example, Leibowitz, Klerman, and Waite (1992).

# Table 1

		L	aw Specifica	tion <sup>a</sup>	
State	Nofault 1	Nofault 2	Nofault 3	Nofault 4	Nofault 5
Alabama	1971	1971	1971	1971	1971, cn
Alaska	1974	pre-1968	pre-1968	1974	
Arizona	1973	1973	1973	1973	1973, cty
Arkansas				1979	•
California	1969	1970	1970	1969	1970, cty
Colorado	1971	1971	1971	1971	1971, ed
Connecticut	1973	1973	1973	1973	,
Delaware	1974			1974	1974, ed
Florida	1971	1971	1971	1971	1971. cn
Georgia	1976	1973	1973	1976	1973. cn
Hawaii	1972	1973	1973	1972	, -
Idaho	1971	1971	1971	1971	
Illinois			1984	1983	
Indiana	1973	1973	1973	1973	1973. ed
Iowa	1970	1970	1970	1970	1970, ed
Kansas		1969	1969		1969. ed
Kentucky	1972	1972	1972	1972	1972. ed
Louisiana	177	1972			1772,00
Maine	1973	1973	1973	1973	1973. ed
Maryland	1970	1970	pre-1968	1970	1770,00
Massachusetts		1975	1975		1975 cn
Michigan	1971	1972	1972	1971	1973, ed
Minnesota	1974	1974	1974	1974	1974 ed
Mississippi	1976	1971	1971	1976	1 <i>7</i> / 1, eu
Missouri	1970		1973	1973	
Montana	1975	1975	1975	1975	1975 cn
Nebraska	1972	1972	1972	1972	1972, ed
Nevada	1931	1972	1972	1931	1973 ctv
New Hampshire	1751	1973	1973	1751	1975, ety
New Jersev		1771	1971		
New Mexico		1973	1973		1973 ctv
New York		1775	1775		1775, ety
North Carolina			pre-1968		
North Dakota	1971	1971	1971	1971	1971 ed
Obio	1974	17/1	1971	1971	1771, cu
Oklahoma	17/7	pre-1968	12/7	17/7	pre-1975 ed
Oregon	1971	1973	1973	1971	1073 ed
Pennsylvania	17/1	1715	1980	1980	1775, Cu
Rhode Island	1975	1976	1976	1975	

Dates of Divorce Law Change by State

		La	w Specificatio	on <sup>a</sup>	
State	Nofault 1	Nofault 2	Nofault 3	Nofault 4	Nofault 5
South Carolina			1969		
South Dakota	1985	1985	1985	1985	
Tennessee	1977			1977	
Texas		1974	1974	1969	
Utah			pre-1968	1987	
Vermont	1941		pre-1968		
Virginia			pre-1968		
Washington	1973	1973	1973	1973	1973, cty
West Virginia			pre-1968	1977	
Wisconsin	1977		1977	1977	1977, ed
Wyoming	1977	1977	1977	1977	1977, ed

#### Table 1 (continued)

a. Nofault 1 is from Irretrievable Breakdown from Ellman and Lohr (1998), altered to exclude Illinois, Missouri, Pennsylvania, Tennessee, Utah, and West Virginia and to include Virginia due to separation period requirement. These states were obtained from Friedberg (1998), Freed and Walker (1990), Weitzman (1985), and Kay (1987). Nofault 2 is Unilateral Divorce from Friedberg (1998). Nofault 3 is Unilateral Divorce, Includes Separation from Friedberg (1998). Nofault 4 is Irretrievable Breakdown from Ellman and Lohr (1998). Nofault 5 is from Gray (1998) and the years of the nofault 5 changes are from Sepler (1981); the cmn, ed, and cty notation indicates whether the laws were accompanied by common property, equitable distribution, or community property division rules, respectively.

was passed in other states throughout the 1970s, and by 1990 most states had some version of a no-fault divorce provision in place. However, several states still require mutual agreement between parties before a divorce is granted or long separation periods before granting a no-fault divorce. In addition, some states also changed their marital property division rules during this period.

Accordingly, each column of Table 1 reflects a different classification scheme, and the cells in the table denote the year in which each state would be classified as a no-fault state based on varying sets of criteria. Column 1 is derived from Ellman and Lohr (1998), who classify as no-fault those states that have sole no-fault grounds for divorce or states that added a form of no-fault law to existing legislation. Column 1 differs from the Ellman and Lohr classification, however, because it also classifies as no-fault those states that require separation periods of less than one year before granting a no-fault divorce.<sup>11</sup> Column 2 denotes the classification scheme used by Friedberg (1998) who classifies states as no-fault if they have a no-fault divorce law and there is no separation period required before a divorce is allowed. Friedberg

<sup>11.</sup> States that required a separation of one year or more are Illinois, Missouri, Pennsylvania, Texas, Utah, and West Virginia. The classification in Column 1 also differs from Ellman and Lohr (1998) because Vermont is classified as a no-fault state based on its requirement of only a six month separation period (Freed and Walker 1990; Weitzman 1985; Kay 1987; and Friedberg 1998).

(1998) also includes a classification that categorizes states as no-fault if separation periods are required; this specification is displayed in Column 3. The fourth column denotes the original no-fault classification used by Ellman and Lohr (1998). Finally, Gray's (1998) classification of no-fault divorce states, and their associated their property division rules, is reported in Column 5.

# IV. Data

The individual data used for the estimation come from the IPUMS-USA 1960–90 United States Census of Population (<u>http://www.ipums.org</u>, Ruggles et al. 2004). The 1960 General sample and the 1970 Form 1 State sample are 1-in-100 random samples of the U.S. population. For the years 1980 and 1990, we use the 5 percent State samples, which identify individuals' states of residence.

Because the variables of interest are labor force participation, weeks worked, and hours worked for married women, the sample is restricted to include only married, spouse present women between the ages of 18 and 49. The age restriction limits the sample to women in the years when they have completed high school and are most likely to have a child under six. The estimates of weeks and hours worked include only women in this sample who are working. Women living in Washington D.C. are not included because the law in Washington D.C. is not specified by Ellman and Lohr (1998), from which much of the law coding for this paper is derived.

The variables used in the analysis are comparable across the years, with the exception that the annual earnings top-codes varied over time. We generated consistent values of the top codes by imposing the real value of 1960s top code (the most restrictive) in each year. In addition, because spousal income is not explicitly available, we use *nonlabor income* (the difference between total annual family income and an individual's own annual earnings) to control for changes in spousal income.

Summary statistics across years and for the whole sample period are presented separately for women with and without children in Table 2. Overall, 74 percent of the women in the sample had children, with the fertility rates declining slightly during the sample period (from 79 percent in 1960 to 72 percent in 1990). The mean LFP rate and its increasing values across the years are consistent with Figures 1 and 2, indicating that women with children have lower levels of labor supply (as measured by their LFPR, weeks, and hours worked), but the labor supply levels for both mothers and nonmothers have been increasing over time.

# V. Empirical Results

#### A. Labor Force Participation

Table 3 presents Probit estimates of Equation 1, using LFP as the dependent variable. The numbers in Table 3 represent the change in the probability of LFP associated with a discrete change in each independent variable. Logit and OLS estimates produced qualitatively similar results. Because our focus is on the impact of the laws by motherhood, we report in the table only the coefficients of primary interest,  $\beta_1$ 

Summary Statis	tics for Ma	rried Wome	n with and	without Cl	hildren unde	er 19 by Yea.	ha			
Percent with child younger than 19	191 79.05	09	19 78.06	70	198 74.51	80	71.72	06	All Ye 73.88	ars
	NC <sup>b</sup>	С	NC	С	NC	С	NC	С	NC	С
In the labor force <sup>c</sup>	0.55	0.28	0.63	0.38	0.74	0.54	0.81	0.68	0.75	0.56
Weeks worked	39.59	32.08	40.67	34.58	42.89	37.72	44.87	40.98	43.59	38.90
last year Hours worked	37.47	34.19	36.98	33.53	37.63	34.00	38.93	35.21	38.26	34.61
Annual hours	1672.11	1384.51	1656.78	1402.70	1732.78	1469.68	1845.57	1598.55	1784.52	1530.63
workeu Family income Nonlabor	7,049 5,555	6,852 6,278	11,642 8,780	11,721 10,360	30,010 23,198	28,719 24,818	49,095 34,494	44,524 34,682	36,620 26,646	32,424 26,439
Age White <sup>c</sup> Black <sup>c</sup>	36.67 0.88 0.11	34.07 0.92 0.07	34.33 0.90 0.08	34.18 0.91 0.08	33.24 0.91 0.06	33.88 0.89 0.08	36.72 0.91 0.05	34.93 0.89 0.06	35.18 0.91 0.06	34.37 0.90 0.07

C 5 Ē ć Table 2

10.0	10.0	10.0	10.0	0.03	c0.0	0.04	0.04	0.03	0.03
0.48	0.44	0.30	0.32	0.18	0.21	0.10	0.12	0.17	0.20
0.36	0.40	0.43	0.47	0.43	0.47	0.35	0.38	0.39	0.43
0.10	0.10	0.14	0.12	0.21	0.18	0.31	0.31	0.24	0.22
0.06	0.06	0.12	0.08	0.19	0.13	0.24	0.20	0.20	0.15
	0.29		0.23		0.22		0.21		0.22
	0.29		0.29		0.26		0.28		0.27
	0.59		0.52		0.48		0.48		0.49
	0.41		0.48		0.52		0.52		0.51
0.004	0.004	0.12	0.10	0.52	0.52	0.53	0.52	0.47	0.45
0.00	0.00	0.03	0.03	0.55	0.53	0.56	0.56	0.49	0.46
0.00	0.00	0.13	0.12	0.77	0.76	0.88	0.87	0.73	0.70
0.002	0.002	0.18	0.16	0.63	0.62	0.73	0.74	0.61	0.59
0.00	0.00	0.12	0.10	0.34	0.34	0.43	0.43	0.35	0.33
59,484	224,482	64,871	230,758	405,806	1,186,162	485,875	1,232,409	1,016,036	2,873,811
	0.00 0.48 0.10 0.00 0.00 0.00 0.00 59,484	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$				

a. Source: Authors' calculations based on 1960–90 United States Census of Population. Data include married (spouse present) women aged 19–49. b. NC = 1 for women with no child younger than 19; C = 1 for women with one or more children younger than 19.

c. Proportions.

d. See Table 1 for definitions of the no-fault laws.

e. The number of observations for the weeks worked last year, hours worked last week, and annual hours worked is lower than reported because the samples are limited to workers.

### Table 3

	1	2	3	4
Nofault <sup>b</sup>	0.000	0.000	-0.027	-0.027
	(0.008)	(0.008)	(0.015)	(0.015)
Child(u2)*nofault	· · · ·	× /		0.047
				(0.016)
Child(2-5)*nofault				0.043
. ,				(0.017)
Child(u6)*nofault			0.045	
			(0.017)	
Child(6-18)*nofault			0.023	0.023
			(0.008)	(0.008)
Child Under 2		-0.389		-0.409
		(0.009)		(0.014)
Child 2–5		-0.287		-0.307
		(0.010)		(0.016)
Child Under 6	-0.327		-0.347	
	(0.009)		(0.015)	
Child 6-18	-0.097	-0.089	-0.108	-0.100
	(0.004)	(0.004)	(0.006)	(0.007)
Pseudo R-squared	0.114	0.117	0.114	0.117

Labor Force Participation, Probit Results<sup>a</sup>

a. N = 3,889,847 and includes all married women in the sample. The standard errors are reported in the parenthesis, and allow for nonindependent regression errors by state (results were similar when clustering within groups defined by state, year, and child age group). The regression also includes nonlabor income, nonlabor income-squared, age, age-squared, race, educational attainment, state dummy variables, and year dummy variables. The reported coefficients are the estimated change in probability of labor force participation associated with a discrete change in the independent variable.

b. The divorce law specification used in the regression is Nofault 1 from Table 1.

through  $\beta_7$ . The *nofault* variable corresponds to Column 1 of Table 1 (we discuss estimates using alternate *nofault* classifications below).

As Bertrand, Duflo, and Mullainathan (2004) point out, the standard errors in a double-difference regression are likely to be serially correlated across time, while the law change is highly persistent. Standard errors that do not account for this will tend to overstate the precision of the estimates. Following Bertrand Duflo, and Mullainathan (2004), we adjust the standard errors for the presence of correlation within states over time using an arbitrary variance-covariance matrix. Practically, this was implemented by using the *cluster* command in STATA and clustering on state cells, rather than state-year cells. Clustering on state-year or state-year-child age cells did not qualitatively change our results.

The first two columns of Table 3 approximate the empirical approach used in previous research by excluding the interaction between *child* and *nofault*. The results are similar to Gray's (1998) panel results: the estimated coefficient of 0.000 suggests that no-fault divorce laws do not have a significant impact on women's labor force participation decisions when these effects are averaged across women with and without children. The negative estimated intercept shifts associated with the *child* variables are also consistent with previous research and reaffirm the assertion that children are negatively associated with LFP, and that young children have a greater negative impact on mothers' LFP than children of older ages.

The estimates in Column 3 allow for differing effects of the laws for women with children under age 6, for women with children between the ages of 6 and 18, and for women without children. In this specification, the statistically significant estimated coefficients on child(u6)\*nofault and child(6-18)\*nofault imply that women with children respond differently to no-fault divorce laws than do women without children. The 0.045 estimated coefficient on *child(u6)\*nofault* implies that the partial effect of *nofault* on the probability of labor force participation is five percentage points larger for women with children under six than for childless women. The -0.027 estimated coefficient on the *nofault* variable implies a 3 percentage point lower probability of LFP for nonmothers in states with no-fault divorce laws relative to nonmothers in states without no-fault divorce laws. Summing this coefficient with that on the *child(u6)\*nofault* interaction term implies that for women with children under six, no-fault divorce laws are associated with a net 0.018 *increase* in the probability of labor force participation. Although not shown in the table, the *p*-value for this sum is 0.02, indicating that the net effect of no-fault divorce laws on the LFP of women with children under six is positive and statistically significant. For women with children ages six to 18, the statistically significant 0.023 estimate indicates that, although there is a differential impact of nofault on their LFP relative to childless women, the net effect of *nofault* on their LFP (-0.027 + 0.023) is not statistically different from zero.

The reduction in LFP rates for childless women is consistent with either no-fault laws resulting in more bargaining power for childless women who prefer home production and/or leisure to market work, or with more bargaining power for childless husbands who prefer their wives to engage in more home production than market work. Without knowing more about underlying preferences, these cannot be distinguished in this data.

Column 4 presents estimates that allow for differential impacts of *nofault* on the LFP of mothers of children younger than two, of mothers of children aged two to five and of mothers of children six to 18, each relative to nonmothers. Again, the estimates indicate a differential impact of *nofault* on the LFP of mothers relative to nonmothers, with the largest differential occurring among women of children younger than two and then decreasing but remaining positive for mothers of older children. The sum of the coefficients on *nofault* and *child(u2)\*nofault* is statistically different from zero and indicates that the estimated effect of no-fault divorce laws is to increase the probability of labor force participation of mothers of children under age two by 0.021. The estimated coefficient on *child(2–5)\*nofault* is similar to that for women with younger children, and the coefficients on *child(u2)\*nofault* and *child(6–18)\*nofault*, as well as the coefficients on *child(2–5)\*nofault* and *child(6–18)\*nofault*, are statistically different from one another at the 1 percent significance level.

Because the bulk of the no-fault laws were passed during the 1970s, Equation 1 is essentially identified using the 1970 and 1980 data. When we estimate our regressions using just these two years, the results are qualitatively similar, but slightly smaller and less significant (for example, the estimated coefficient on child(u2)\*no-fault falls to 0.033, and its significance level changes from 0.02 to 0.08). One possible explanation for the difference is that, as Wolfers (2003) demonstrates, the short-term and long-term effects of these law changes can differ, and using the larger set of years captures more of the long-term effects.

As a final robustness check, we also estimated Equation 1 while limiting our sample to single women (with and without children). Although they may be considering marriage in the future, single women face no current divorce risk. Thus, results for this sample should be decidedly different from the findings obtained using the married women sample. This is indeed the case, as our estimates (available from the authors) do not indicate any differential LFP response associated with no-fault laws for single women with children.

## B. Fertility Responses to the Laws

The estimates presented in Table 3 support the hypothesis that women with young children have different LFP responses to no-fault divorce laws than their childless counterparts. These results use nonmothers in states with no-fault laws and mothers in states without no-fault laws as comparison groups, and essentially rely on the assumption that the composition of mothers and nonmothers in states with and without no-fault laws are the same. However, if no-fault laws reduce the probability that a woman becomes a mother in anticipation of higher divorce risk, the selection into motherhood will be different under the two legal regimes, and the comparison groups themselves could be changing with the laws in ways that bias the estimates.

However, the effect of selection is likely to bias the results down, rather than up. A woman's probability of having a child is probably positively correlated with her reservation wage. If no-fault laws tend to discourage child-bearing, the group of women who do become mothers are the women most likely to have very high reservation wages and, therefore, very low labor force participation rates relative to mothers in fault states or to mothers in their own state prior to the no-fault law passage. This is the opposite of the results in Table 3, suggesting that the estimates may be lower bounds.

Furthermore, it does not appear that the probability of becoming a mother does in fact differ across states whose laws change, making it even less probable that selection into motherhood drives our results. Table A2 compares the fertility rates of women in states that changed to no-fault regimes between 1970 and 1980 against those of women in states that did not change their laws during that time. The set of states in the fault (no-fault) columns is the same in each decade, and the table focuses on law changes during the 1970 to 1980 period because most changes occurred during that time. If motherhood is a function of divorce laws, one would expect to see lower rates of fertility in no-fault states over time. Table A2 shows that the fraction of women who are mothers or who are mothers of young children is essentially identical in each decade in the two groups of states. More importantly, although fertility declined across the country during this period, the decline in the two sets of

Table	4
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	1	2	3	4
	Nofault 2 <sup>b</sup>	Nofault 3	Nofault 4	Nofault 5
Nofault	-0.029	-0.022	-0.034	-0.016
	(0.014)	(0.014)	(0.012)	(0.015)
Child(u6)*nofault	0.050	0.063	0.069	0.041
	(0.015)	(0.018)	(0.016)	(0.016)
Child(6-18)*nofault	0.029	0.035	0.032	0.025
	(0.007)	(0.009)	(0.008)	(0.007)
Child Under 6	-0.350	-0.370	-0.367	-0.343
	(0.012)	(0.017)	(0.015)	(0.014)
Child 6–18	-0.111	-0.122	-0.117	-0.107
	(0.006)	(0.009)	(0.008)	(0.006)
Pseudo R-squared	0.114	0.114	0.115	0.114

Labor Force Participation by Law Classification, Probit Results<sup>a</sup>

a. N = 3,889,847 and includes all married women in the sample. The standard errors are reported in parenthesis, and allow for nonindependent regression errors by state (results were similar when clustering within groups defined by state, year, and child age group). The regression also includes nonlabor income, nonlabor income-squared, age, age-squared, race, educational attainment, state dummy variables, and year dummy variables. The reported coefficients are the estimated change in probability of labor force participation associated with a discrete change in the independent variable.

b. See Table 1 for listing of the laws by state and date of passage. The *nofault 5* variable refers only to the presence of a no-fault law in the state, not to its associated property division rules.

states was exactly the same. This implies that selection into motherhood is unlikely to play an important role in our results.

Finally, it could be that no-fault laws do not change the *proportion* of women who become mothers but do change *how many children* mothers have. If mothers in no-fault states have fewer children than mothers in fault states, this could explain why LFP rates are higher in no-fault states. However, when we include controls for the number of children a woman has in the regressions, our results are unchanged.

# C. Robustness to Law Specification

To examine the robustness of the results presented in Table 3 to different specifications of the no-fault divorce law variable, Table 4 repeats the estimates reported in Column 3 of Table 3, while allowing the *nofault* variable to change according to each of the other classification schemes listed in Table 1 (we estimated each of the specifications reported in Table 3 using each of the no-fault classifications, but because these were qualitatively similar we do not report them here). The estimated coefficients resulting from these variations in the law coding are consistent with those presented in Table 3, indicating that the differential impact of *nofault* on the LFP of women with and without children is robust to changes in the specification of the *nofault* law used by previous researchers.

#### Table 5

Labor Force Participation Using No-fault Laws and Property Division Rules, Probit Results<sup>a</sup>

		1			2	
	Common Law	Equitable Distribution	Community Property	Common Law	Equitable Distribution	Community Property
Law	-0.012	0.025	0.003	-0.045	0.006	-0.023
	(0.016)	(0.011)	(0.005)	(0.030)	(0.017)	(0.012)
Child(u6)*		_	_	0.052	0.032	0.042
law				(0.027)	(0.016)	(0.015)
Child(6-18)*				0.032	0.018	0.026
law				(0.011)	(0.008)	(0.007)
Child Under 6		-0.327			-0.343	. ,
		(0.009)			(0.014)	
Child 6–18		-0.097			-0.107	
		(0.004)			(0.006)	
Pseudo		0.114			0.114	
R-squared						

a. N = 3,889,847 and includes all married women in the sample. The standard errors are reported in parenthesis, and allow for nonindependent regression errors by state (results were similar when clustering within groups defined by state, year, and child age group). The regression also includes nonlabor income, nonlabor income-squared, age, age-squared, race, educational attainment, state dummy variables, and year dummy variables. The reported coefficients are the estimated change in probability of labor force participation associated with a discrete change in the independent variable.

b. The no-fault law and property division rules are from Gray (1998). See Table 1.

#### **D.** Property Division Rules

We examine the impacts of differences property division rules associated with nofault laws in Table 5. Rather than including an indicator for no-fault divorce law, we expand the specification in Equation 1 to interact no-fault laws with the (mutually exclusive) common property division, equitable distribution, and community property division rules described in Table 1.

The first set of estimates reported in Table 5 utilizes the specification used in Gray (1998) by including indicators no-fault laws by state and their accompanying property division rules, but not interacting these with the *child* variables. As mentioned above, Gray finds that laws that divide marital assets based on common law (generally viewed as favoring the husband) tend to be associated with decreases in wives' labor force participation, while those that divide the assets based on community property (generally viewed as favoring the wife) are associated with increases in wives' labor force participation. Although less significant than his estimates, the signs on our estimates are consistent with his findings, indicating that laws have a negative effect on women's LFP in common law states and a positive effect on LFP in community property states.

In Column 2 of Table 5, we expand the specification to interact the property division laws with the *child* variables. The results again suggest differential responses among women with and without children. All three types of laws are associated with increases the LFP of mothers relative to nonmothers (as indicated by the positive and statistically significant estimates on *child(u6)\*law* and *child(6–18)\*law* for all three types of property division rules). In addition, the net effect of all three types of rules (summing the effect of *law* and *child(u6)\*law*) is a positive increase in labor force participation for mothers of young children.

## E. The Intensive Margin: Weeks and Hours of Work

In general, then, our estimated relationships between *nofault* and LFP appear to be robust to changes the no-fault classification used by earlier researchers; they are also consistent across different specifications of child age. In Table 6, we repeat the estimates reported in Column 4 of Table 3 for working married women only, using *weeks worked last year*,<sup>12</sup> *hours worked last week*, and *annual hours worked* as dependent variables.

The estimates presented in Column 1 of Table 6 indicate that no-fault divorce laws are not associated with statistically significant changes in the weeks worked by nonmothers, but are positively associated with weeks worked by mothers. Specifically, the interaction between *child(u2)\*nofault* indicates that no-fault divorce laws are associated with mothers of children under age two working 1.2 (1.27 - 0.113 = 1.16) more weeks per year than their counterparts in states without such laws (the *p*-value for this net effect is 0.000). Similarly, women with children aged two to five who live in no-fault states are estimated to work roughly one more week per year than their counterparts in states without no-fault divorce laws. The estimated effect of the laws for women with older children is also consistent with increases in weeks of work in no-fault states, although the difference here is smaller, only 0.3 weeks per year (*p*-value 0.16).

Column 2 of Table 6 presents estimates using *hours worked last week* as the dependent variable. Again, the estimates indicate statistically different responses to nofault divorce laws for mothers relative to nonmothers. Here, however, the positive net impacts of the laws on mothers (for example, the sum of the coefficients on *nofault* and *child\*nofault*) are not statistically different from zero, suggesting that currently working mothers are not dramatically changing their weekly hours of work in response to the passage of no-fault divorce laws.

Finally, Column 3 of Table 6 reports estimates using *annual work hours* (computed as the product of *weeks worked last year \* hours worked last week*) as the dependent variable. As would be expected based on the estimates in Columns 1 and 2, the estimates again imply increases in the labor supply of mothers associated with no-fault divorce laws. For mothers with children under two, the estimates indicate roughly 25 more annual hours worked for women in states with no-fault divorce laws relative to similar mothers in states without the laws (*p*-value 0.10), a result consistent with estimates in Columns 1 and 2 implying no change in weekly hours worked,

<sup>12.</sup> Weeks worked last year and hours worked last week are categorical variables in the Census. We used the midpoints of the categories to generate the OLS estimates reported in the tables. Multinomial logit estimates using the categorical classifications of the variables yielded qualitatively similar results.

### Table 6

Weeks and Hours Worked, OLS Results<sup>a</sup>

	1 Weeks Worked Last Year	2 Hours Worked Last Week	3 Annual Hours Worked <sup>b</sup>
Nofault <sup>c</sup>	-0.113	-0.399	-17.05
	(0.328)	(0.356)	(20.74)
Child(u2)*nofault	1.27	0.323	41.95
	(0.375)	(0.056)	(30.98)
Child(2-5)*nofault	0.757	0.350	28.02
	(0.326)	(0.533)	(28.69)
Child(6-18)*nofault	0.395	0.270	21.02
	(0.227)	(0.336)	(20.44)
Child Under 2	-10.11	-5.63	-460.12
	(0.360)	(0.522)	(29.58)
Child 2–5	-6.42	-4.94	-349.95
	(0.288)	(0.482)	(26.00)
Child 6-18	-3.95	-3.03	-236.36
	(0.156)	(0.273)	(15.52)
R-squared	0.088	0.054	0.067

a. N = 2,641,516 in Column 1 and includes married women who worked last year. N = 2,202,010 in Column 2 and includes married women who worked last week. N = 2,120,464 in Column 3 and includes married women who worked last year and last week. The standard errors are reported in the parenthesis, and allow for nonindependent regression errors within groups defined by state. The regression also includes nonlabor income, nonlabor income-squared, age, age-squared, race, educational attainment, state dummy variables, and year dummy variables.

b. Computed as weeks worked last year \* hours worked last week.

c. The *nofault* variable is defined as in Column 1 of Table 1. Other specifications of *nofault* (using Columns 2–5 of Table 1) generated qualitatively similar results.

but rather an increase in weeks worked per year. As before, the estimated impacts of the laws are smaller and less significant for women with older children.

# VI. Conclusion

Previous research on the relationships between no-fault divorce law and female labor supply outcomes has found mixed results. However, this literature has only estimated average effects and has not accounted for the heterogeneous responses of different groups of women. This paper adds to the literature by examining a group that is likely to have a relatively large response to changes in divorce laws: married women with children.

We utilize a difference-in-difference-in-difference estimator to compare changes in labor supply associated with no-fault divorce laws among married women with children relative to married women without children in states where no-fault divorce laws were passed. The estimator controls for similar changes in labor supply over time among married women with and without children in states without changes in divorce laws.

The results suggest that married mothers are more likely than women without children to increase their participation in the labor force and to increase their weeks worked in response to no-fault divorce laws. The estimates also imply a larger response to the laws for women with young children than for women with older children. Specifically, the estimates indicate that no-fault divorce laws are associated with mothers of children under age six having a 0.02 higher probability of labor force participation than their counterparts in states without such laws, even after controlling for concurrent differences in the LFP of nonmothers in states with and without divorce laws. This is also true after accounting for across-state differences in property division rules associated with the no-fault laws. There is also no evidence that the laws have differential impacts on the labor supply of single women. Among women with children under age two who are labor force participants, no fault divorce laws are associated with 1.2 more weeks worked per year. The estimated relationships between no-fault divorce laws and labor supply outcomes are smaller for women with older children, and are robust to changes in the specification of the no-fault law. Our findings are consistent with the hypothesis that different groups of women have heterogeneous responses to divorce laws, and that pooled estimates underestimate the effect of these laws on the marginal labor force entrant.

	15	960	19	70	19	80	1	066	All	Years
	$NL^{p}$	Γ	Ŋ	Γ	NL	Γ	ЪГ	Γ	NL	Γ
Child under 2 <sup>t</sup>	0.14	0.16	0.23	0.24	0.38	0.40	0.5	5 0.5	7 0.4	0.43
Child 2–5 <sup>b</sup>	0.22	0.24	0.31	0.34	0.48	0.49	0.62	2 0.6	5 0.50	0.53
Child under 6 <sup>t</sup>	0.18	0.20	0.27	0.30	0.43	0.45	0.50	9.0 (	0.40	5 0.48
Child 6–18 <sup>b</sup>	0.39	0.41	0.48	0.50	0.62	0.62	0.7	4 0.7	6 0.6	5 0.66
No child under 19 <sup>b</sup>	0.55	0.54	0.63	0.63	0.75	0.74	1 0.8	1 0.8	1 0.76	6 0.75
Number of observations	145,155	111,889	147,289	117,256	767,401	655,135	818,946	696,352	1,878,791	1,580,632
a. The states are c Kansas, Louisiana, Texas, Utah, Virgi Filorida, Georreia, E	ategorized bas Maryland, Ma nia, and West	sed on <i>Nofault</i> assachusetts, M Virginia); L = hofforo Towo	I from Table issouri, New H states that pass	l, as follows: N ampshire, New sed no-fault lav	VL = states w Jersey, New M vs between 19 Minnacoto N	ithout change fexico, New 70 and 1980	ss in no-fault ] York, North C: (Alabama, Al	aws between arolina, Oklah aska, Arizona,	1970 and 1980 ( oma, Pennsylvani , Colorado, Conn	Arkansas, Illinois, a, South Carolina, scticut, Delaware,

Tennessee, Washington, Wisconsin, and Wyoming). Residents of California, Nevada, and Vermont are excluded from this table because these states had no-fault laws

in place prior to 1960.

b. Proportions.

 Table A1
 I above Force Participation of Married Women in States with and without No-Fault Laws<sup>a</sup>

Appendix

<b>Table A2</b> <i>Fertility of Mu</i>	arried Won.	ten in Stat	es With a	und With	out No	Fault Law	sa sa					
	$^{1}$ NL <sup>b</sup>	960 L	IZ	1970 L	L	NL 1	L L	NL	1990 L	NL	All Years L	
Child under 2	b 0.2	3	24	0.17	0.18	0.1	6 0.3	6 0.	15 0.	14	.16 0	.16
Child 2–5 <sup>b</sup>	0.2	0	24	0.23	0.23	0.1	9	.0 6	20 0.	20	0.20	20
Child under 6	<sup>b</sup> 0.4	9	48	0.40	0.41	0.3	9.0	36 0.	35 0.	34 (	).36 0	.36
Child 6–18 <sup>b</sup>	0.3	3 0.	32	0.38	0.38	0.3	.0 6	.0 68	37 0.	38 (	.38 0	.38
No child	0.2	1	20	0.22	0.21	0.2	0.0	25 0.2	28 0.	28 (	).26 0	.26
under 19 <sup>b</sup>												
Number of	145,155	111,889	147,28	39 11	7,256	767,401	655,135	818,946	696,352	1,878,791	1,580,632	
observation	S											
<ul> <li>a. The states are kansas, Louisian Texas, Utah, Virg Florida, Georgia, Tennessee, Washi in place prior to b. Proportions.</li> </ul>	categorized b t, Maryland, M inia, and Wesi Hawaii, Idahc ngton, Wiscor 1960.	ased on <i>Nofe</i> fassachusetts t Virginia); L v, Indiana, Jo nsin, and Wy	<i>uult 1</i> from ' , Missouri, J , = states th wa, Kentuci oming). Res	Table 1, a New Haml nat passed ky, Maine sidents of	s follows: pshire, Nev no-fault la , Michigan California	NL = states v Jersey, Nev uws between u, Minnesota, an,	without chan v Mexico, Nev 1970 and 198 Mississippi, d Vermont are	ges in no-faull York, North ( O (Alabama, <i>F</i> Montana, Neb excluded fron	: Jaws betwee Carolina, Okla Maska, Arizon Taska, North I n this table b	n 1970 and 198 homa, Pennsylv ia, Colorado, CC Jakota, Ohio, C ecause these sta	0 (Arkansas, Illin ania, South Caro onnecticut, Delaw rregon, Rhode Isl tes had no-fault	nois, lina, /are, and, laws

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