Female Labor Force Participation and Family Law

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The 1970s witnessed two parallel changes: dramatic increases in the labor force participation of women and changes in the laws governing marriage and divorce. This paper assesses how the legal changes surrounding divorce contributed to the rise in women's labor force participation. Divorce laws change the value of exiting the marriage and thus potentially change bargaining within the household. These laws also potentially change the returns to specialization in household versus market production by reducing the amount of time women can expect to spend in marriage and by increasing the returns to investing in one's options outside of marriage.

Research has shown that women increase their labor force participation in the years prior to a divorce and that those who divorce have engaged in less household specialization (Johnson and Skinner, 1986; Lundberg and Rose, 1999). These studies do not suggest that female labor force participation causes divorce, but rather that the anticipation of a higher probability of divorce increases female labor force participation.

It was this relationship between divorce and labor force participation that led scholars to ask how the legal changes regarding the grounds for divorce may impact female labor force participation. Family law underwent tremendous change in the 1960s and 1970s as states began to consider reducing their role in divorce proceedings. In the first half of the 20th century, most states required evidence of marital fault before allowing a marriage to be dissolved. Beginning in the late 1960s, many states introduced "irreconcilable differences" as grounds for divorce, effectively ushering in a period of unilateral divorce—divorce upon the request of either spouse. In addition to the passage of unilateral divorce laws, many states removed fault as a consideration in property division and some states changed laws governing property division subsequent to divorce. Currently, all but five states have some form of unilateral divorce and two-thirds allow unrestricted unilateral divorce.

Early results presented in Peters (1986) based on cross-sectional comparisons suggested that unilateral divorce led to a 2 percentage point rise in female labor force participation. Yet these results were argued to be erroneous in Gray (1998) who found that unilateral divorce had no independent effect on women's market work. Instead Gray's results suggested that unilateral divorce laws had very different effects depending on the underlying property division laws. Perhaps most controversially, Gray interpreted these results as suggesting that women engage in market work more when they gain bargaining power and less when they lose it.

This paper revisits the question of how unilateral divorce impacts female labor force participation and makes 4 key contributions. First, I put these results in a longer run perspective by comparing female labor force participation in states with and without unrestricted unilateral divorce over many decades. Second, I replicate Gray's analysis using census data. Third, I propose a simple test for assessing the importance of property laws, re-running Gray's analysis separately for a group with substantial marital property—a home—and for those without. Paradoxically, I show that the finding of a decrease in women's labor force participation in states that adopted unilateral divorce where property laws favor men occurs only among those who do not own a home. I then show that the addition of a few control variables, such as controls for welfare policy, reverses the finding of a differential effect of unilateral divorce across states depending on their underlying property division laws. Instead, these control variables illustrate that the incentives provided by unilateral divorce are independent of how property is divided—in a regime in which any party can exit at will there is a greater incentive to maintain one's options outside of marriage. Women seeking both insurance against divorce and greater bargaining power within marriage are thus more likely to engage in market work when states allow unilateral divorce irrespective of the underlying property division laws.

II: Divorce Reform and Married Women's Labor Supply

Unilateral divorce fundamentally changes the nature of the marriage contract by allowing either party to end the contract at will. This change impacts the bargaining position of each spouse—shifting bargaining power toward the party with the greatest options outside the marriage. Additionally, by allowing either spouse to leave unilaterally, these laws greatly reduce the ability of couples to bargain intertemporally. Indeed Stevenson (2007) finds that newlywed couples in unilateral divorce states specialize less in their marriage and are less likely to support each other's human capital investments.

Divorce reform may affect female labor supply either because it changes the value of women's bargaining position in the relationship, or because it alters the returns to specialization within marriage and thus the returns to market versus non-market work. Previous work has shown that the divorce rate rose only slightly with the adoption of unilateral divorce, but those who do divorce do so quicker (Peters, 1986; Friedberg, 1998; Wolfers, 2007; Matouschek and Rasul 2007). Furthermore, marriage rates are lower with unilateral divorce (Rasul 2006). In sum, the empirical results point toward women spending more of their life outside of marriage in states with unilateral divorce and thus have a greater incentive to acquire market skills.

The theory behind why the divorce rate is largely unchanged in the face of a change in who has the right to divorce stems from the Coase theorem. Since the property right—the right to divorce—is fully assigned in both cases, couples should bargain to reach the efficient outcome. Regardless of whether both spouses must consent or whether one spouse can leave unilaterally, divorces should only occur when the joint utility of the husband and wife divorced exceeds that from remaining married. However, there are important distributional changes. In the case of mutual consent divorce, the person whose utility is greater if divorced must compensate their spouse in order to make a divorce preferable to remaining married for both of them, while under unilateral divorce such a spouse would simply exit the marriage keeping all of the rents. These distributional changes point to why women in unilateral divorce states have greater incentives to preserve their options outside of marriage—the outside option both sets the relevant threat point for bargaining within marriage and determines the minimum utility that one would receive in the wake of a divorce.

In Gray's analysis he pointed to the role of laws regarding the division of property in establishing the bargaining position of husbands and wives in the wake of unilateral divorce. He classified each state into one of three largely stable regimes—equitable division, community property, and common law—which differ in how much of the property is typically allocated to the wife upon divorce. Gray's interpretation was that women in states where the legal guidelines lead them to receive small settlements at divorce have less bargaining power under unilateral divorce laws than under fault-based divorce. However, this is only true if it is the husband who wishes to divorce. Indeed, under all types of property laws, women whose relative utility is higher inside the marriage than is their husbands—i.e. who prefer to remain married more than their husbands do—lose bargaining power to their husbands with a switch to unilateral divorce.

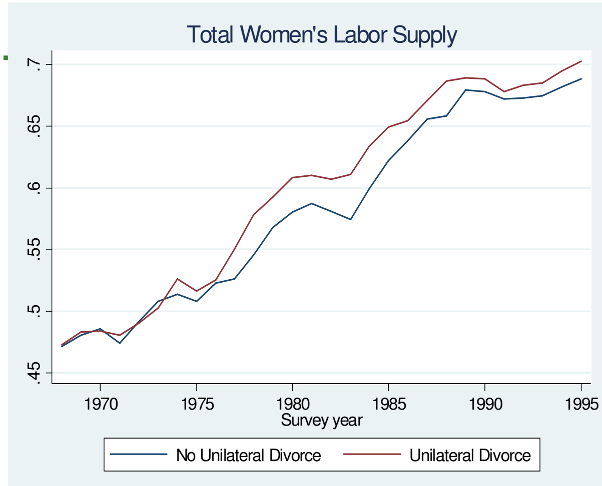
Laws regarding the division of property affect the legal parameters for the division of assets, but since spouses know these laws at the time they marry and make subsequent investment decisions, these laws do not uniquely determine which spouse has a higher value of exiting the relationship. For example, if the woman prefers to divorce then the passage of unilateral divorce laws transfers bargaining power to her regardless of the underlying property laws. If property division laws are stable during the transition to unilateral divorce, then the shock to bargaining is the transfer of the right to exit the marriage.

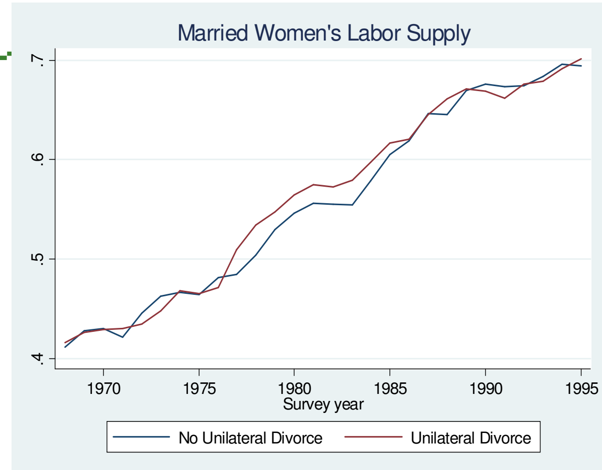
III: Empirical Results

Annual labor force participation data shows that women's labor force participation is higher in states that adopted unilateral divorce compared with states that did not. Figure 1 shows the aggregate labor force participation rates of all women and married women. This figure shows that female labor force participation rose in the mid-1970s in states that adopted unilateral divorce relative to those that did not. (While states vary in the timing of adoption, states are simply grouped into those that adopt unilateral divorce and those that do not.) This rise for married women appears to last about 10 years, after which the impact of unilateral divorce on selection into marriage appears to erode any difference. In contrast, the labor force participation rates for all women rose and remain about 2 percentage points higher in unilateral divorce states. This result is consistent with results that find lower marriage rates in unilateral divorce states; as a result, unmarried women have a greater incentive to invest in market skills. Further regression analysis (not shown) exploits the variation that comes from differences across states and years in the timing of the adoption of unilateral divorce and shows that the rise in female employment in unilateral divorce states robustly occurred after the passage of unilateral divorce.

Turning to replicating the analysis in Gray (1986) I use the 1970 and 1980 Censuses and estimate the effect of unilateral divorce is separately for the three property division regimes:

Table 1: Total Women and Married Women's Labor Supply by Unilateral Divorce





Notes: Data are annual data from the Current Population Survey.

common law, community property, and equitable division.[1] The same specification is also run replacing the three dummy variables with a single indicator variable for unilateral divorce regardless of the type of property division.[2] Aside from state and year fixed effects, individual characteristics are included as controls, although many of these controls may themselves be changed by the adoption of unilateral divorce. For instance, existing research has shown an effect of unilateral divorce on fertility. Husband's income is a particularly problematic control variable as husbands' and wives' labor is jointly determined, presumably by household bargaining.

The first column of Table 1 reports Gray's primary specification (his Table 3, columns 2 & 3). Panel A reports regressions where there are three dummy variables indicating whether a

[1] I follow Gray's coding of property division laws and his coding of unilateral divorce laws.
[2] I follow his sample which excludes 5 states that changed their divorce laws in the late 1970s. Only one state in his sample changed property division—it was from common law property division to equitable division during this period. Thus equitable division is included as a control, common law is the excluded category, and community property is collinear with the state fixed effects and is therefore not included. Following Gray, the control for equitable division is not included when unilateral divorce is estimated as a single indicator variable.

state has unilateral divorce with equitable division, common law, or community property division laws. Panel B reports regressions where the independent variable of interest is measured as a single dummy variable indicating whether the state has unilateral divorce. The second column replicates this specification using the same 1 in 1000 Censuses samples and follows his coding of both the dependent and independent variables. The replication is nearly exact with coefficient estimates within rounding error at the third decimal place. The estimated coefficients indicated that when unilateral divorce is adopted women's employment falls by nearly 4 percentage points in common law states and rises by 2 percentage points in community property states and by 1 percentage point in states with equitable division. These initial results suggest an import role for property division laws in determining the labor supply consequences of unilateral divorce.

The next two columns investigate a simple test of the hypothesis put forward by Gray that the estimates of the response of married women's labor supply to the adoption of unilateral divorce is governed by how the state will divide property by considering the property that a couple owns. The argument for why unilateral divorce affects women differently in common law states versus equitable division or community property states is that men typically hold title to property in common law states and thus have greater resources upon divorce. The most important asset that most couples divide at divorce is their home (and this asset is also easily held only in the husband's name). As such, we would expect to see differences between home owners and renters in the impact of unilateral divorce laws that vary by property regime, with the results shown in columns 1 driven by those who own property. What we see instead is that the negative relationship between married women's employment and the adoption of unilateral divorce in states with common law property division is driven largely by those who don't own a home. The change to unilateral divorce leads to a statistically significant 10 percentage point decrease among renters in married women's employment in states with common law property division. In contrast, among home owners unilateral divorce leads to a statistically insignificant 2 percentage point fall. The coefficient on unilateral divorce with community property is similar across the two groups and the coefficient on unilateral divorce with equitable division is positive for both groups, albeit slightly larger for renters.

The results shown in columns 5-6 point to the potential for omitted variable bias to be driving the differential effects across property regimes. Column 5 shows that dropping the potentially endogenous variables and expanding the sample to a 1-in-100 sample attenuates the estimated coefficients (the remaining individual level controls include a quadratic for age, a saturated set of dummy variables for educational attainment, and race). The last column adds controls for time-varying state-level policy such as the presence of a food stamp program, the presence of welfare for families with an unemployed parent, the maximum AFDC rate for a family of four, and whether a state allows abortion. Both Panels A and B now show statistically significant increases in married women's labor force participation of about one-percentage point when unilateral divorce is adopted. Importantly, this increase in labor force participation occurs regardless of the underlying laws governing property division at divorce as can be seen in the coefficient estimates which are now similar across the three types of property laws.

IV: Conclusion

This paper revisits the question of how divorce law changes impacted female labor force participation. I show that Gray's inability to find a consistent effect of unilateral divorce on female labor supply reflected omitted variable bias and heterogeneity in treatment for women based on marital duration. Adding a richer set of controls for state level time-varying factors yields estimates that imply an effect of unilateral divorce on female employment that is similar across legal regimes for the division of property at divorce. These findings suggest that unilateral divorce led to a 1 percentage point rise in female employment. Examining 25 years of data shows an increase in female employment for both married and unmarried women following unilateral divorce that reaches its peak 5 years after unilateral divorce is adopted and remains about 2 percentage points higher than that in states that did not adopt unilateral divorce. These findings point to divorce reform's broader impact on the behavior of individuals both within and outside of marriage.

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Table 1
Female Employment and the Adoption of Unilateral Divorce with Different Property Division Laws: Comparing Effects for Different Groups

	Gray (AER 1998)	Replication	Renters	Home Owners	Minimal controls (1% Sample)	+Aggregate state-level policy controls
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A						
Unilateral divorce w/ common law	-.036 (.015)	-.037 (.016) {.004}	-.100 (.032) {.012}	-.017 (.018) {.005}	-.010 (.005) {.003}	.010 (.007) {.009}
Unilateral divorce w/ equitable distribution	.013 (.010)	.013 (.011) {.008}	.023 (.021) {.013}	.009 (.012) {.009}	.005 (.003) {.006}	.012 (.005) {.007}
Unilateral divorce w/ community property	.023 (.012)	.024 (.012) {.005}	.023 (.021) {.011}	.028 (.014) {.008}	.004 (.004) {.003}	.010 (.008) {.009}
Panel B						
Unilateral	.006 (.008)	.006 (.008) {.007}	-.000 (.016) {.013}	.008 (.010) {.008}	.001 (.003) {.003}	.011 (.004) {.006}
Sample size	63,615	63,615	16,842	46,622	656,375	656,375

Notes: All columns report Probit estimates, evaluated at the cell mean. Robust standard errors are in parentheses. Standard errors clustered at the level of the state-year are in curly brackets. Gray (1998) reports t-statistics. I calculate the implied standard errors and show standard errors rather than t-statistics. Regression specification follows Gray (1998). Controls include state and year fixed effects, a dummy for non-hispanic white (Hispanics were not identified in most states prior to 1980), a dummy for urban status, non-labor household income, husbands income, number of kids ever born , kids ever born squared, any kids under 6, years of education, age. The reduced set of controls includes dummy variables for white and black, a quadratic for age, a saturated set of dummy variables for education, along with state and year fixed effects.
State-level demographic controls include age composition variables indicating the share of states' populations aged 26-40, 41-55, 56-65, and over 65, the share of the state's population that is black, white and other the natural log of state personal income per capita, the unemployment rate. State-level policy controls include the maximum AFDC rate for a family of four, existence of the AFDC unemployed parent and food stamp programs, and the Donahue and Levitt coding of whether a state has abortion access.