Yours, Mine and Ours: Do Divorce Laws Affect the Intertemporal Behavior of Married Couples? *

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PRELIMINARY AND INCOMPLETE
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Abstract

Divorce laws establish spouses’ individual property rights over household resources and determine when divorce is allowed. This paper examines how such laws influence the saving and investment behavior of U.S. married couples. I build a life-cycle model where spouses are uncertain about their future preferences for remaining married and their future labor income and make collective choices about consumption, wealth accumulation, human capital investment and divorce under multiple divorce law regimes. I estimate the model using exogenous variation in U.S. divorce laws from the 1970s to the 90s and data from the PSID and the NLSW. I find that couples responded to equal division of property and unilateral divorce by increasing tangible assets up to 16%, which is compatible with the presence of a strong income effect for the primary earner. Moreover, women accumulated relatively less labor market experience in equal division of property and unilateral divorce regimes, as tangible assets provided them

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with more insurance and additional bargaining power in their households. Equal division of assets benefited women when it was introduced, since women in the 1970s and 80s only weighted about 35 percent in couples’ decisions. However, counterfactual experiments show that, as women gain equality in the marriage, equal division may be far less favorable to them, and potentially detrimental, with respect to prenuptial agreements or title-based regimes.

1 Introduction

According to the New York Divorce Bill of 1980, marriage is a “partnership of coequals”: under the law, everything owned in the marriage belongs to both spouses. Today, no state in the U.S. recognizes spouses’ separate ownership of marital assets. Property division is a typical consequence of divorce, which in the United States involves between a third and a half of all couples.\(^1\) Accordingly, assets are rarely separately held in marriage. In the 1990s, three quarters of couples that had a bank account only own a joint account (Treas 1993). More recent data from the 2004 Survey of Consumer Finances reveal that 74% of household liquid savings are held in joint accounts (Klawitter and Fletschner 2006). Joint debts are also a common feature of families’ balance sheets and some suggest they are the primary source of financial distress for recently divorced women (Wolf 2010).

Division of marital assets upon divorce has not always been the prevalent rule in divorce settlements in the U.S. and nor is adopted in all developed countries. Until the 1960s, in the majority of states spouses held individual property rights over assets that were recognized in divorce settlements: such states followed a more or less strict title-based common law regime in which only the title of property determined the distribution of such assets in a divorce (Turner 1998, Golden 1983). Between 1970 and the mid-90s all these states introduced equitable distribution of property, allowing courts to allocate assets irrespectively of the title

\(^1\)According to the National Center for Health Statistics, in 1995 the probability that a first marriage would end in a divorce by the 10th year after the wedding was 30 percent and larger than 50 percent by the 25th year. While the number of divorcees as a fraction of the total population increased significantly in the 1970s, it then stabilized and slightly decreased recently. The number of divorces rose with respect to the number of marriages until the 1980s, and has been declining since then (Stevenson and Wolfers, 2007).
of ownership in favor of equity. These legal changes were meant to defend the interests of secondary earners (usually women) in divorce settlements and to promote the notion that marriage dissolution should be financially treated as the dissolution of a business partnership (Turner 2005).

In addition to changes in property division rules, another important wave of divorce law reforms took place in the 1970s and 1980s: the introduction of unilateral divorce allowed people to divorce without the consent of their spouse. Previously, divorce was only allowed in case of fault of one party, such as adultery, or under the consent of both spouses. While these reforms were intended to improve the efficiency of courts, and not to influence society and marriage, they made divorce more easily accessible to U.S. couples (Gruber 2004, Stevenson and Wolfers 2007).

This paper examines how the distribution of property rights in a couple affects the intertemporal behavior and the welfare of American married people by analyzing the impact of these legal reforms on household savings and investments.

The effects of changes in divorce settlement laws have been the subject of scant research. Understanding how property rights in marriage affect the incentives to save and invest may have important policy implications, as divorce laws are subject to continuous changes in the United States through the action of courts and lawmakers. Recently, legal scholars have suggested that, to achieve equity, all property should be subject to division, also the one acquired before marriage (Motro 2008). Others have instead suggested that joint bank accounts should be banned to encourage spouses to manage their resources separately (Mahle 2006). However, little is known about how couples’ economic behavior responds to such changes. Today, judges, legal authors and lawyers mainly rely on anecdotal evidence and personal experience when evaluating property division rules (Turner, 2005).

Moreover, the introduction of equitable distribution and of the notion of marriage as a partnership were meant to help secondary earners smooth consumption in divorce. However, if household behavior in marriage changes, the welfare implications of the laws for women and men may not be the ones expected by policy makers. Also, as the role of women in the labor market and in the family has been evolving since these reforms took place (Goldin 2002), it is useful to evaluate how the impact of such laws may change with women’s role and income.

Property division rules can influence the intertemporal decision and the welfare of married couples through multiple channels. First, they affect spouses’ individual returns on joint savings: equal division of assets may act as a tax on savings for the breadwinner and a subsidy for the secondary earner. Moreover, property division laws also influence household decision-making, by affecting the outside option to marriage and thus marital bargaining. This is especially likely if one spouse can threat to initiate divorce without the consent of the other party. The implications of these channels on household incentives to save and invest and on spouses’ welfare are not simple to predict nor to directly observe in the data. First, little information is available on spouses’ private consumption, property and bargaining power within marriage. Second, the welfare effects of divorce laws are difficult to observe in the
data since spouses’ private consumption and bargaining power in marriage is unobservable in
the data and the information on divorced couples is scarce and heavily affected by selection
bias. Third, unilateral divorce makes property division rules an especially relevant subject
of analysis: if one spouse can leave the marriage without the consent of the other one, the
way property would be distributed in that event may play an even larger role in shaping
decisions about the accumulation of assets during marriage, since unilateral divorce may
make the divorce option a valid threat-point in intrahousehold bargaining.

For the above reasons, to analyze the effect of property rights in marriage I build a
life-cycle model where spouses are uncertain about their future preferences for remaining
married and their future income and make collective choices about consumption, wealth
accumulation, labor market participation for the wife and divorce. Decisions in marriage
depend on spouses’ initial bargaining weights, which evolve over time as spouses’ outside
option to marriage changes. I solve the model under different assumptions on divorce settle-
ment laws and legal grounds for divorce, that reflect the key features of U.S. divorce laws
over the past fifty years. This model allows me to obtain quantitative predictions about the
effects of divorce laws on the saving and investment behavior of couples.

The model suggests that the welfare effects of divorce laws depend on existing decision-
making parameters in the household and on their evolution. In a title-based regime, each
spouse’s assets in divorce depend on her bargaining weight in marriage. Therefore, divorce
laws that impose equal division of assets only affect those households where one spouse has
a significantly larger bargaining power than the other one, by favoring the low-empowered
spouse. If spouses’ bargaining weights are the same, equal division of assets may not be
beneficial for either spouse, and may in fact be detrimental if one spouse has a lower per-
manent income than the other. The model also predicts that the incentives to accumulate
both physical and intangible assets during marriage depend on how wealth will be allocated
between spouses in the case of a divorce, especially if a unilateral divorce regime is in place.
In particular, the accumulation of assets is affected by competing income and substitution
effects when assets are divided upon divorce irrespectively of the decision weights within
marriage.

The effect on spouses’ behavior and welfare of divorce law reforms allows to identify the
intra-household bargaining parameter of the model. Estimating such parameter allows to
examine the welfare effects of the legal changes and to undertake policy analysis. To estimate
it, I first analyze household survey data and estimate the response of asset accumulation
and female labor participation to divorce law reforms and then use such responses as target
moments in the estimation of the structural parameters of the model. I exploit exogenous
variation in divorce laws across states and over time to identify the effect on the behavior of
couples that got married **before** the reforms. In particular, I use data from the Panel Survey of
Income Dynamics and from the National Longitudinal Survey of Young and Mature Women
to analyze the impact on saving and human capital investment decisions of divorce law
reforms.

My regression results suggest that equal division of assets and unilateral divorce are
associated with 19 percent higher accumulated assets compared to mutual consent divorce, while no effect is found when unilateral divorce is introduced in title-based states. Moreover, I find that women reduced their labor market participation by 6 percentage points when assets were divided equally and unilateral divorce was in place. These findings are consistent across several robustness checks. I use these regression results as target moments to estimate the parameters of the model by indirect inference, by simulating the same divorce law reforms that we observe in the data. The parameter estimates suggest that in the 1970s and 1980s, when these reforms took place, women had relatively little power in their households (65%). Thus, imposing an equal division of assets was beneficial for them and detrimental for their husbands. This led to a fall in the returns to assets and to a strong income effect for men, which explains the increase in asset accumulation. Equal property division and unilateral divorce also discouraged women from participating in the labor market, as it granted them more resources in divorce and also more bargaining power in marriage.

In my counterfactual analysis, I ask how the welfare of women and men would change if equal division of assets was not the default property division rule. I find that equal division is not always beneficial for empowered women nor is optimal from the point of view of the household. While equal division of assets was beneficial to women when it was first introduced in the 1970s and generally for women with low bargaining power in their household, it may prevent women who have as much weight in household decision as their husband from smoothing the marginal utility of their consumption upon divorce: if they were allowed to individually own their property, they may decide to save more than their husband, to account for a lower wage, that may be due to maternity wage penalty, their higher life expectancy and, as some surveys suggest, their higher risk aversion. Thus, the view of “marriage as a partnership” may prevent spouses from optimally planning their savings if they have different incentives. Previous work suggested that spouses’ individual incentives may be crucial in determining joint saving decisions. Among others, Browning (2000) shows that spouses with different life expectancies have different incentives to save, but he cannot verify that in survey data. Mazzocco (2004) models how spouses’ different preferences for risk combine to generate household joint saving decisions. This paper highlights the costs and benefits of laws that treat spouses’ savings as joint, and thus practically impose joint accumulation of assets.

The paper is organized as follows. Section 2 introduces divorce laws in the United States. Section 3 illustrates the dynamic model. Section 4 describes the data used in the empirical estimation. Section 5 exploits quasi-experiments in U.S. divorce laws to test the prediction derived from the calibrated model. Section 6 addresses potential concerns about the identification strategy and presents robustness checks. Section 7 exploits the results from the quasi-experiment to estimate the parameters of the dynamic model and discusses the policy implications of the estimation results. Section 8 concludes.
2 U.S. divorce laws: overview and literature review

The 1960s, 70s and 80s saw widespread and fundamental changes to state divorce laws. Across states and over time, the grounds for divorce shifted from mutual consent to unilateral choice and property division rules were rewritten to promote equitable allocation of assets.

2.1 Grounds for divorce

Over the period of analysis, the legal regimes governing the grounds for divorce in the United States can be defined as mutual consent regimes and unilateral divorce regimes. Mutual consent only permits divorce when both husband and wife agree or on fault grounds, such as adultery or domestic violence. Unilateral divorce permits divorce on the grounds of “irreconcilable differences” or “irretrievable breakdown”, thus allowing one party to obtain divorce without the consent of the other.

Before the 1960s, state regulation allowed divorce only under mutual consent. The 1960s brought about the start of the unilateral divorce revolution. From 1970 to 1990, the number of states with unilateral divorce grew from three to thirty-five. By 2009, only fifteen states, including New York and Washington DC, do not recognize irreconcilable difference or irretrievable breakdown as legal grounds for divorce.2 Table (14) in the Appendix shows detailed information on the introduction of unilateral divorce and legal changes to property division rules across states between 1967 and 1999 and suggests that there is a considerable variation in these laws across states and over time.3

The literature on the effects of the unilateral divorce revolution on the likelihood of divorce is large and contentious. Becker (1993) applies the Coase theorem to the divorce decision and concludes that, in the absence of transaction costs and under symmetric information, the change from mutual consent divorce to unilateral divorce should not affect the probability of divorce because of re-bargaining within marriage. Chiappori et al. (2007) analyze the assumptions of the Becker-Coase theorem and conclude the result holds only under very restrictive assumptions. On the empirical side, Friedberg (1998) uses time and cross-sectional variation in the introduction of unilateral divorce and finds that unilateral divorce increased the divorce rate. Wolfers (2007) shows that this effect is not robust to controlling for pre-existing time trends in the divorce rate. He does, however, document a short-term positive relationship in the early years since the reform, suggesting that unilateral divorce may have increased the probability of divorce for couples that were already married. The difference between short-term and long-term effects may be driven by changes in sorting into marriage and matching. Thus, when the reform occurs, couples that are already married are more

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2Statutorily, these states require “living separate and apart” or a judicial separation to allow divorce. In practice, spouses can divorce without the consent of their spouse, but the process is more difficult (Friedberg 1998).

3The years of introduction of unilateral divorce are from Gruber (2004) and have been updated using the issues Family Law Quarterly (1977-1990). The reforms in property division laws are from the Family Law Quarterly, Rasul (2003), Stevenson (2006), Gray (1998), Turner (1998) and state-level sources.
likely to respond. As time passes, the new cohorts may account for the new law in the marriage decision.

Unilateral divorce also leads to intrahousehold re-bargaining and thus to a change in the allocations within marriage and ultimately in each spouse’s welfare (Becker 1993). In the absence of unilateral divorce, the divorce outside option does not affect spouses’ bargaining power in marriage. With unilateral divorce spouses may bargain every period based on the the divorce threat-points. Thus, the introduction of unilateral divorce influences the parameters of household bargaining, by allowing each spouse’s outside option upon divorce to affect her weight in the household maximization problem.

Recent work has suggested that unilateral divorce significantly decreased female suicide and domestic violence (Stevenson and Wolfers 2006). Moreover, while Gray (1998) finds that unilateral divorce has no independent effect on female labor force participation, Stevenson’s work (2008) suggests that unilateral divorce increases female labor participation independently of the underlying property division regime. Unilateral divorce also had a negative effect on the life outcomes of children who grew up when it was first introduced (Gruber 2004): this may be explained by the fact that grounds for divorce laws also influence the investment in children, though the magnitude of this channel appears small (Brown and Flinn, 2006).

Unilateral divorce may also have important effects on household savings and investment. Yet, there is little research on the subject. A relevant paper is Stevenson’s (2007) who evaluates the impact of unilateral divorce on marriage-specific investments using Census data on newlywed couples. She finds that the introduction of unilateral divorce negatively affects the propensity to undertake marriage-specific investments, such as support of a spouse through school or the purchase of a house.

2.2 Property division laws

Property division regimes over the period can be classified as three main regimes:4

a) Title-based states (TB), where assets are allocated according to the title of ownership

b) Community property states (CP), where assets are divided equally, under the presumption they are owned by both spouses

c) Equitable distribution states (ED), where assets are divided to achieve equity. This may imply equal division or a division that favors the spouse who contributed the most to purchase of the asset or in favor of the spouse who has higher need.5

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4The legal classification distinguishes between community property and common law regimes (Golden 1983). It then classifies common law states as strict title-based states and equitable distribution states. I follow the economic literature (Gray 1998, Stevenson 2007) by classifying states as title-based common law, community property and equitable distribution regimes.

5Even among equitable distribution and community property regimes, states differ in the definition of
At the turn of the 20th century, common law title-based property division was the dominant legal regime, with the exception of eight states, mainly those with a French or Spanish colonial legacy, such as Louisiana, New Mexico or California, that had community property regimes. Over the course of the century, title-based states shifted towards equitable distribution, while community property states maintained their laws. By the 1930s, 17 title-based states had transitioned to equitable distribution (Golden 1983). After the federal Uniform Marriage and Divorce Act (UMDA) of 1970, all remaining 27 states that had a title-based property division system adopted equitable distribution (Golden 1983, p.3). In fact, the UMDA created the legal ground for the introduction of equitable distribution in all states and by the early 1980s a number of populous states, such as Illinois (1977), New York (1980) and Pennsylvania (1980), introduced equitable distribution. The last title-based state transitioned to equitable distribution when Mississippi changed its laws in 1994 (Family Law Quarterly, 1977-2005).

Although prenuptial agreements might have blunted the impact of these property division reforms, legal scholars believe that prenuptials had only a minor effect. While these contracts were not enforced by courts until the 1970s, since the Uniform Premarital Agreements Act of 1983 the enforcement of prenuptial agreements has become more likely. Today, prenups are signed in only 5 to 10 percent of marriages (Rainer 2007), a fact potentially explained by social stigma and lack of information on their benefits (Mahar 2003).

The effect of property division laws has also been subject to analysis. Aura (2003) develops a game theoretic model of asset allocation under cooperation and limited commitment under title-based and community property legal regimes. Modeling divorce as an out-of-equilibrium event, he shows that property division laws may affect household bargaining marital assets that are subject to division in a divorce settlement. In most states, assets owned prior to marriage, plus inheritances and gifts received during the marriage are separate property that spouses are allowed to own individually. In other states, even intangible assets such as the earnings from a law or medical degree are subject to a form of division. Furthermore, household debt that is held in both spouses’ name, such as mortgage, is also subject to division by courts.

These legal reforms were salient to U.S. households. For instance, a search of the Lexis Nexis archives (www.lexisnexis.com) revealed that between June and July 1980, when equitable distribution was introduced in New York state, seven articles were published in the New York Times regarding this legal change, including some long and detailed ones. Moreover, between 1974 and 1990 eighty articles from the New York Times have been classified as regarding both “marital property” and “divorce and dissolution”.

Alimony or maintenance payments are transfers awarded to the poorer spouse upon divorce. Traditionally, alimony was awarded to the wife who had no fault in the divorce. Since the Uniform Marriage and Divorce Act of 1970, alimony can be awarded to the poorer spouse, independently of the gender, to ease the transition to the labor market. It has thus been redefined as “rehabilitative” alimony (Turner 1998). Even before these changes, data on alimony payments show that these were generally infrequent transfers. For instance, in the National Longitudinal Survey of Young and Mature Women only 10 percent of divorced women ever report receiving alimony between 1977 and 1999, for a median payment is 4,000 real 2008 dollars, approximately 15 percent of the divorcee’s household income. Child support is usually a larger transfer from the non-custodial parent to the parent that is granted custody of the children. Del Boca and Flinn (1995) examine a sample of divorce cases in Wisconsin between 1980 and 1982, where the average child support transfer is about 20 percent of the father’s income.
and intertemporal behavior. Gray (1998) and Stevenson (2007) allow the impact of unilateral divorce to have a different effect on female labor supply in states with different property division rules, but do not explore the mechanism through which these laws could operate. Marcassa (2008) shows that changes in the laws that govern settlements are likely to affect the divorce decision. Chiappori et al. (2008) develop a model of couple formation and disruption with different income division rules upon divorce, which influence household formation and matching.

3 The model

To identify the channels through which divorce laws influence household behavior and welfare, I develop a dynamic model of household choice where spouses jointly decide over consumption, saving and the labor supply of the wife. In each period, spouses can choose to divorce and live off their individual resources. The divorce decision and the divorce outcome depend on the divorce laws. I model two grounds for divorce regimes (mutual consent and unilateral divorce), and three property division rules (community property, title-based regime, equitable distribution) to follow what described in section 2.

The model represents the behavior of two individuals, $H$ and $W$ that are married at time 1, and live until time T. The symbol $H$ denotes the primary earner and the symbol $W$ the secondary earner. They can be thought as husband and wife, but the gender characterization is only meant for expositional convenience.

In every period from time 1 to T, the households decides on consumption and savings. Between time 1 and time $T - R$, the household also makes decisions about $W$’s labor supply and about divorcing, depending on the divorce laws. From time $T - R + 1$ to time $T$, spouses are retired and thus no decisions are made on labor supply.

In this model, households make collective decisions about the marriage allocation, which determine spouse’s utility in marriage. Property division rules and spouses’ labor income determine their utility in divorce. If a spouse’s utility in divorce is higher than her utility in marriage, she prefers to divorce. Whether divorce occurs or not, though, depends on the legal regime.

3.1 Preferences

Both husband and wife derive utility from the consumption of one good $c_j$ and disutility from labor force participation $P_j$. Spouse’s utility functions are separable across periods and across states of the world.

Furthermore, their preferences depend on a taste-for-marriage parameter $\xi_j$, which changes over time and affects the divorce decision. Each spouse has a subjective level of preference for their spouse $\xi_t^j$ that evolves over time.
Preferences thus take the form:

\[ u^j_{\text{married}} = u(c^j_t, P^j_t) + \xi^j_t \quad \quad u^j_{\text{divorced}} = u(c^j_t, P^j_t). \]

The taste shocks follow a random walk process:

\[ \xi^j_t = \xi^j_{t-1} + \epsilon^j_t \quad \text{where } \epsilon^j_t \text{ is distributed as } N(0, \sigma^2_{\epsilon^j}). \quad \text{for } j = W, H. \]

The random walk process is meant to capture the persistency of positive and negative changes in one’s preference.

The utility function \( u(c, P) \) takes a Constant Relative Risk Aversion (CRRA) form

\[ u(c, P) = \frac{c^{1-\gamma}}{1-\gamma} - \psi P \]

for \( \gamma \geq 1 \) and \( \psi > 0 \).

While men always participate in the labor market before retirement \( (P^H_t = 1 \text{ for } t = 1, \ldots, T - R) \), while participation is a choice variable for the wife.

### 3.2 Budget constraint

I here describe the consumption technology, the process for spouses’ income and the budget constraints of the household and the divorcees’ problems.

#### 3.2.1 Consumption technology and children

For a given level of household expenditure \( z \), spouses’ consumption depends on the household inverse production function

\[ \frac{z}{e(CH)} = F(c^H, c^W) = \left[ (c^H)^\rho + (c^W)^\rho \right]^{\frac{1}{\rho}} \]

where \( e(CH) \) represents an equivalence scale due to the presence of children. Thus, for a given level of expenditure, a couple is able to consume more than they could consume if they were single. The constant elasticity of substitution functional form allows the magnitude of economies of scale in the household to depend on the consumption gap between spouses. That is, if one spouse, for instance the husband, does not consume anything, then \( z = c^W \). Economies of scale are maximized when spouses have the same consumption.

The birth of children takes place at predetermined ages. Children affect household consumption according to the McClements scale (denoted as \( e(CH) \)).

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8A couple with a child aged 0-1 consumes 109 percent of the consumption of a childless couple. The additional fraction is 18 percent for each child between 2 and 4 years, 21 percent between 5 and 7 years, 23 percent between 8 and 10, 25 percent between 11 and 12, 27 percent between 13 and 15 and 38 percent between 16 and 18 years.
3.2.2 Income over the life-cycle

Spouses are uncertain about their future labor income and receive permanent income shocks that are correlated between husband and wife.

The wife’s labor income depends on her human capital, accumulated through labor force participation (Olivetti 2006, Attanasio et al. 2008):

\[
\ln(y_t^W) = \ln(h_t^W) + P_t^W + \iota_t^W
\]

where \(P_t^W\) represents a the permanent component that follows a random walk process

\[
P_t^W = P_{t-1}^W + \zeta_t^W
\]

and \(\iota_t^W\) an i.i.d. measurement error. The law of motion for spouse W’s human capital \(h_t\) is:

\[
\ln(h_t^W) = \ln(h_{t-1}^W) + \delta I(P_{t-1}^W = 0) + (\lambda_0^W + \lambda_1^W \cdot t)I(P_{t-1}^W = 1).
\]

If a woman participated in the previous period, her human capital increases at rate \((\lambda_0^W + \lambda_1^W \cdot t)\), which is decreasing in her age. If she did not, her human capital depreciates at a rate \(\delta\). If W participates, the household would face childcare expenses \(ChC\).

I also assume that the husband’s income is growing over the life cycle, consistently with patterns observed in the data:

\[
\ln(y_t^H) = \ln(y_1^H) + \ln(h_t^H) + P_t^H + \iota_t^H
\]

\[
\ln(h_t^H) = \ln(h_{t-1}^H) + \lambda_0^H + \lambda_1^H \cdot t
\]

The initial offer wage \(y_1^H\) is lower for \(W\) than for \(H\).

At time \(T - R\), spouses retire and only obtain a share of their pre-retirement income.

3.2.3 Budget constraints in marriage

In marriage, the budget constraints depend on the property division regime.

In title-based regime:

\[
A_{t+1}^H + A_{t+1}^W = (1 + r) \cdot (A_t^H + A_t^W) + y_t^H + (y_t^W(h_t^W) - ChC_t) \cdot P_t^W - z_t
\]

Thus, spouses save in separate “accounts” \(A^H\) and \(A^W\) that have the same market rate of return \(r\). If divorce is not an option, spouses are indifferent between the two accounts. If divorce is possible, spouses make a portfolio allocation decisions and household total assets are \(A = A^W + A^H\). If divorce occurs, each spouse keeps his/her own assets.

In equitable distribution and community property, assets are treated as jointly owned upon divorce and thus spouses save jointly:

\[
A_{t+1} = (1 + r) \cdot A_t + y_t^H + (y_t^W(h_t^W) - ChC_t) \cdot P_t^W - z_t
\]
3.2.4 Budget constraints in divorce

In divorce, spouses live off their resources. They both contribute to the consumption of their children as a fraction of their own consumption, and this captures child custody and child support. The budget constraint is thus simply:

\[ A_{t+1}^j = (1 + r) \cdot A_t^j + y_t^j \cdot P_t^j - z_t^j - ChC_t^j, \quad j = H, W \]

where participation for the man is always \( P_t^j = 1 \).

In the first year of divorce, each spouse’s level of assets depends on the property division regime. In a title-based system, spouses maintain their own “account” \( A^j \) upon divorce. In equitable distribution and community property, wealth is divided according to a sharing rule: in divorce, the husband keeps a share \( \alpha \) of \( A \), the wife a share \( (1 - \alpha) \). The husband’s share \( \alpha \) is equal to \( \frac{1}{2} \) in community property and is uniformly distributed between \( \frac{1}{3} \) and \( \frac{2}{3} \) in equitable distribution. This is meant to capture the fact that under equitable distribution between half and two thirds of the property is usually assigned to the spouse with highest earnings (Woodhouse and Fetherling 2006), but also that the division of assets may sometimes favor the spouse with lower income and thus higher need for assets (Turner 2005).

I assume that spouses cannot contract around the property division laws, because assets at the beginning of each period were chosen at the end of the previous one (a similar approach in Marcassa 2008). While this may seem as a strong assumption, divorce settlements were often contested in court, especially under mutual consent (Buehler 1995). This would make it difficult for spouses to commit to a division that departs from the law. Furthermore, prenuptial agreements were rarely enforced before the mid 1980s and remain unfrequent (Mahar 2003).

3.3 Divorcee’s problem

The female divorcee solves the following problem:

\[
U_t^{WD} = \max_{c_t^W, p_t^W, A_t^W} \quad u(c_t^W, P_t^W) + \sum_{s=1}^{T} \beta^s E \left[ u(c_{t+s}^W, P_{t+s}^W) \right]
\]

s.t. budget constraint

The budget constraint is described in subsection 3.2.4 and depends on the property division regime in the first year of divorce. I assume that \( H \) always participates, while participation for \( W \) is a choice variable.

\[ \text{This model captures important features of the actual legal system, but includes some important simplifications. For instance, in the past if spouses had a joint title of property on the house, then such house would be divided between them upon divorce even in title-based regime. Furthermore, in community property or equitable distribution not all assets owned by a couple are subject to division. Some states have a “dual property” system that allows spouses to keep all assets accumulated before marriage or inherited.} \]
In every period, a divorcee has a certain probability of remaining in the current marital status or of remarrying with another spouse that has her same level of assets. If remarriage occurs, the problem is analogous to the one of a married couple, but I impose that people do not divorce after their second marriage.

The problem for the male divorcee is analogous, but labor market participation is not a choice variable for the man, who always works in the model until he reaches retirement.

### 3.4 Married couple’s problem in mutual consent divorce

Spouses make decisions collectively with bargaining weights $\theta$ and $1 - \theta$, where $\theta$ represents the husband’s weight in the household objective function. The parameter $\theta$ is determined by conditions of the marriage market in the initial period or by the outcome of initial intra-household bargaining based on threat-points that are internal to the marriage, such as the threat of a non-cooperative equilibrium within the marriage (Lundberg and Pollak 1993).

In every period, the couple maximizes the sum of their discounted utility:

$$
\max_{c_H, c_W, P_W, A} \quad \theta U_{t}^{HM} + (1 - \theta) U_{t}^{WM}
$$

subject to budget constraint

where

$$
U_{t}^{jM} = u(c_{t}^{j}, P_{t}^{j}; \xi_{t}^{j}) + \sum_{s=1}^{T-t} \beta^{s} E \left[u(c_{t+s}^{j}, P_{t+s}^{j})\right]
$$

Because uncertainty in this model comes from the realization of the shocks to preference-for-marriage and to income, the expected value is taken with respect to the distribution of $\xi^{j}$ and $y^{j}$ for $j = H, W$ and accordingly with respect to future marital status and income.

The household solves problem (6) with fixed bargaining weights $\theta$ and remains married unless both spouses prefer the divorce allocation.

Thus, divorce would occur in period $j$ when:

$$
U_{s}^{HM} < U_{s}^{HD} \quad \text{and} \quad U_{s}^{WM} < U_{s}^{WD}.
$$

If only one spouse wants to divorce, she cannot lower the utility in marriage of the other spouse to induce him to agree to divorce, since in this setting the bargaining weights are fixed. This assumption does not appear that strong if one considers that, under mutual consent divorce, the spouse who had a “fault”, e.g. an abusive or adulterous spouse, was often punished by courts in the divorce settlement.

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10 An interesting alternative would also be to model the household decision in a non-cooperative framework (Del Boca and Flinn 2009). Under certain assumptions, the main intuition would remain unchanged: when spouses save separately, but courts consider their assets as jointly owned, the risk of divorce lowers the returns on the accumulation of assets for the richer spouse.
3.5 Married couple’s problem in unilateral divorce

In unilateral divorce, spouses can re-bargain based on their divorce allocations. In every period, the couple solves:

$$\max_{c_H, c_W, P_W, A} \theta_{t_0} U_H^M + (1 - \theta_{t_0}) U_M^W$$

s.t. budget constraint and participation constraint

where

$$U_{t}^{jM} = u(c_t^j, P_t^j, \xi_t^j) + \sum_{s=1}^{T-t} \beta^s E \left[u(c_{t+s}^j, P_{t+s}^j)\right]$$

The participation constraints state that each spouse has to be better off in marriage than in divorce:

$$U_{t}^{HM} \geq U_{t}^{HD} \quad (8)$$

$$U_{t}^{WM} \geq U_{t}^{WD} \quad s = t, \ldots, T. \quad (9)$$

The solution to this case closely follows the limited-commitment intra-household bargaining literature (Ligon et al. 2002, Marcet et al. 1992, Mazzocco 2007, Mazzocco et al. 2007). In this setting, divorce never occurs when conditions (8) are satisfied and would always occur when both spouses prefer the divorce allocation to remaining married.

Furthermore, when only one spouse prefers to divorce and the other prefers to stay married, re-bargain occurs. This can be seen as an increase in the weight of the spouse that prefers to divorce and a decrease in the weight of the one who prefers to remain married. Thus, when

$$U_{t}^{jM}(\theta_{t_0}) < U_{t}^{jD} \quad \text{and} \quad U_{t}^{iM}(\theta_{t_0}) \geq U_{t}^{iD}$$

for $j = H, W$ and $i = W, H$, $\theta_{t_0}$ would shift to $\theta^*_t$ such that

$$U_{t}^{jM}(\theta^*_t) = U_{t}^{jD} \quad \text{and} \quad U_{t}^{iM}(\theta^*_t) \geq U_{t}^{iD}. \quad (10)$$

If re-bargain is not possible, thus if there is no $\theta^*_t$ that satisfies (10), then divorce occurs.

3.6 Solution method

3.6.1 Divorcee’s problem

The problem of the female divorcee $W$ has three state variables, $A^W$, $h^W$ and the divorce laws $\Omega_t$. It also has two choice variables, $c^W$ and $P^W$ and it is easily solved by backward induction under the terminal condition that $A_{T+1}^W = 0$ for a discrete vector of possible values for $A^W$.

\[\text{If remarriage reoccurs (with probability } (1 - \zeta_t) \text{ in each period), then the problem is again solved by backward induction under the same zero-assets terminal condition.}\]
For the male divorcee the problem is identical with the only exception that the decision to work is not a choice variable.

The solution leads a sequence of values $V_t^{Dj}(\Omega_t)$ that represent each spouses’ valuation

### 3.6.2 Couple’s problem

The married couple’s problem has ten state variables: the assets level $A$, the level of the wife’s human capital $h$, the levels of preferences for marriage for each spouse $\xi$, the income level for each spouse $y_t$, the husband’s bargaining power $\theta$ and the divorce laws $\Omega_t$ (which represents two state variables: ground for divorce law and property division rule). Choice variables are spouses’ consumption levels $c^j$ and female labor force participation $P^W$.

This leads to the following value function:

$$V_t^M(h_t^W, A_t^H, A_t^W, \xi_t^H, \xi_t^W, y_t^H, y_t^W, \theta_t, \Omega_t)$$

The household takes the divorce laws $\Omega_t$ as given and assume that they are going to persist in time: changes in $\Omega_t$ are thus unanticipated and exogenous to the model. Moreover, divorce laws impose restrictions on the state variables. In community property, $A_t^H = A_t^W \forall t$ and in equitable distribution $(1 - \alpha)A_t^H = \alpha A_t^W \forall t$. In mutual consent divorce, $\theta_t = \theta_{t+1} \forall t$.

The problem is solved numerically by backward induction (Adda and Cooper 2003) with the terminal condition

$$A_{T+1} = 0$$

since there is no bequest motive in the model. In the last period, expenditure is set to $z_T = A_t^H + A_t^W + y_t^H + y_t^W$. Given $z_T$, consumption for each spouse is determined according to the household production function and their bargaining power.12 This leads to individual value of marriage $V_t^{jM} = u(c_t^j(z_T), \theta_t)$.

Each spouse compares her own valuation of marriage $V_t^{jM}$ to the one of divorce $V_t^{jD}(\Omega_T)$ and decides whether she would prefer to divorce or not. Whether divorce occurs or not would then depend on the underlying grounds for divorce law. This would give to each spouse a value for period $T$ that I denote as:

$$V_T^j(h_t^W, A_t^H, A_t^W, \xi_t^H, \xi_t^W, y_t^H, y_t^W, \theta_t, \Omega_t)$$

for $j = H, M$. If divorce occurs, then $V_T^j = V_T^{jD}$, otherwise $V_T^j = V_T^{jM}$.

In period $T - 1$, the value function takes the form:

$$V_{T-1}^M = max \quad \theta u(c_{T-1}^H) + (1 - \theta)u(c_{T-1}^W) + \theta E_{\xi_t}[V_t^H] + (1 - \theta)E_{\xi_t}[V_t^W]$$

which is again solved numerically.13

12From the first order conditions: $c^H = \left[\frac{\theta \gamma \rho}{(1 - \theta) \rho + \theta \gamma \rho} \right]^{\frac{1}{\gamma}} \cdot z$ and $c^W = \left[\frac{(1 - \theta) \gamma \rho}{(1 - \theta) \rho + \theta \gamma \rho} \right]^{\frac{1}{\gamma}} \cdot z$.

13To obtain the numerical solution I discretize the vector of assets $A$ and the vector of $h^W$, $y^W_t$ and of $\xi^j_t$. I discretize the random walk processes into a Markov chains and use the transitions probabilities to compute the expected values $E[u(\cdot)]$ (Adda and Cooper 2003).
In the other periods, the solution is obtained by solving the problem recursively. Starting in period $T - R$ backwards until period 1, household also make decisions on female labor participation $P_t^W$:

$$V_t^M = \max \theta u(c_t^H) + (1 - \theta)u(c_t^W, P_t^W) + \theta E_{\xi_t}[V_{t+1}^H] + (1 - \theta)E_{\xi_t}[V_{t+1}^W].$$

### 3.7 Implications of the model

The model has implications for three observable aspects of household decision: divorce, asset accumulation and labor supply (human capital) decisions. These implications derive from both the direct effect of each law and the interaction effects between grounds for divorce and property division laws.

#### 3.7.1 Divorce laws and the divorce decision

A relevant feature of this model is the lack of transferable utility. Since utility is not transferable, under unilateral divorce couples will end their marriage more often than under mutual consent, in violation of the Becker-Coase theorem. Assume for example that the realizations of the wife’s preference shock $\xi_t^W$ is very low, for instance because she meets another more suitable potential partner. Then, within-marriage compensation (i.e. transfer of consumption goods and leisure) may not always be sufficient to convince her to remain in the marriage.

#### 3.7.2 Divorce laws and intra-household allocation in marriage

Under unilateral divorce, couples renegotiate household allocations based on divorce outside options. Under mutual consent divorce the bargaining weight $\theta_0$ is fixed in time to a value that reflects the conditions of the marriage market at time 0. In fact, spouses cannot exercise the divorce outside option without the consent of the other party and thus divorce cannot be a relevant threat-point of household bargaining. When unilateral divorce is introduced, the bargaining weights do shift to incorporate spouses’ outside options that are represented by divorce allocations and that are not incorporated in the initial $\theta_0$. For instance, if the man’s bargaining weight $\theta_0$ is high (e.g. because of other social norms or of conditions of the marriage market at time 1 that are unrelated to the divorce outside-option), but the realizations of $W$’s income are sufficiently high to allow her to be better off in divorce than

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14 See Chiappori et al. (2007) for a discussion of the other assumptions needed for this theorem to hold.

15 The lack of transferable utility would make divorce more likely in unilateral divorce regimes even if spouses were allowed to contract around property division laws, even though the region of realization of the preference and income shocks for which divorce occurs would be larger in mutual consent divorce with contractible property division than with fixed property division rules. This is however not allowed in this formulation of the model.
in marriage, $W$ can use the threat of divorce to increase her bargaining power and to lower $\theta_t$. This translates in a higher share of consumption goods and higher leisure for her.

Similarly to an income shock, changes in property division rules impact spouses’ resources in divorce and therefore influence allocations within marriage by shifting the value of spouses’ divorce outside option.

### 3.7.3 Divorce laws and assets

Property division laws allocate assets to spouses in divorce settlements and thus influence resources available to each spouses in a divorce. In a title-based property division regime, the household chooses how much to allocate to each spouse in the event of a divorce. The lower $\theta$, the higher the wife’s consumption in marriage relative to her husband’s consumption.\(^{16}\) Thus, to allow her to smooth consumption in divorce, without income pooling with her husband, $A^W$ will also have to be high and decreasing in $\theta$. Each spouse’s asset level increases in his/her bargaining power, just as their consumption does. In equitable distribution and community property, households can only choose the total amount of savings $A$ and the share attributed to wife is, in expectation, equal to the one attributed to the husband. Thus, women with low bargaining power ($1 - \theta$) will benefit from these division regimes compared to a title-based regime. On the contrary, in those households where women have high bargaining weight (e.g. $\theta = \frac{1}{2}$), assets chosen in a title-based regime may be such that $A^W > \frac{1}{2}A$.

In this model, $W$ has lower permanent income that her husband $H$. If $\theta = \frac{1}{2}$, $W$ needs a higher level of assets than $H$ to maintain her marginal utility of consumption constant in divorce, because in that circumstance she will no longer be able to benefit from his income. If $\theta$ is sufficiently high, the wife needs less self-insurance in divorce, because she has low consumption in marriage and her income alone would allow her to smooth the marginal utility of her consumption.

During marriage, divorce laws influence household behavior through multiple channels. Because of unilateral divorce and the corresponding increase in the likelihood of divorce, risk-averse households are encouraged to increase savings in order to allow the smoothing of the marginal utility of divorce against the loss of economies of scales in divorce (Cubeddu and Rios-Rull, 1997 and 2003). In addition, by influencing the amount of assets available to spouses in the event of a divorce, property division laws have multiple effects on household behavior.

First, they alter the household intertemporal problem by affecting each spouse’s individual returns on assets. Second, they influence spouses’ outside option and thus intrahousehold bargaining. Third, equitable distribution introduces uncertainty on the returns on savings.

\(^{16}\)From the intra-temporal first order conditions, derive the optimal consumption allocation for a given level of expenditure $z$:

$$\theta(c^H)^{1-\gamma-\rho} = (1 - \theta)(c^W)^{1-\gamma-\rho}$$

(when both spouses participate).
a) Spouses’ individual returns on savings In community property and equitable distribution, the division of assets imposed by courts may alter the returns on assets relative to a title-based regime. In marriage, each spouse’s consumption increases in his/her bargaining power. Equal division of assets acts thus as a tax on savings for the high-power spouse and as a subsidy for the low-power one. Spouses’ weight in the household decision function determine the overall effect in the household intertemporal problem: equal property division in a household with unequal distribution of power decreases the returns on savings. Similarly to a change in the market return on assets or to a tax on savings, such decrease has a substitution effect (consumption is cheaper at time $t$ than at time $t+1$ and may decrease savings) and an income effect (for a net saver, resources available at time $t+1$ are lowered and this may increase savings). Preferences and spouses’ need for insurance determine whether the income or the substitution effect dominates.

b) Spouses’ outside options

Property division rules determine the fraction of household resources available to each spouse in a divorce. Thus, by affecting spouses’ outside option, property division rules also affect spouses’ bargaining power. As explained below, in this model such effect is only in place when spouses can divorce without the consent of the other spouse, and can thus exercise the divorce outside option as a relevant threat-point in marital bargaining. When assets are divided equally in unilateral divorce, the household may lower savings to discouraged

b) Uncertainty Spouses are uncertain about how property will be divided in equitable distribution. Uncertainty on the returns on assets negatively affects the welfare of a risk-averse family.

3.7.4 Divorce laws and female labor supply

If divorce generates a loss of resources for women (such as the loss of their share of the husbands’ income), women have an incentive to increase their labor supply to accumulate human capital (cf. Johnson and Skinner 1986). However, the more favorable the property regime is to them, the weaker this incentive would be, since tangible assets provide women with sufficient insurance against the loss of within-marriage transfers. from their husbands.17

Furthermore, a woman’s labor force participation is decreasing in her bargaining power, and thus increasing in $\theta$: the lower a women’s power ($1-\theta$), the lower the utility cost of participation in the household value function. By increasing a woman’s outside option in divorce, divorce laws that favor women may thus lead to a reduction in their labor supply. Again, this mechanism would only operate when spouses can exercise the divorce outside option without the consent of the other party.

This link between the distribution of power in the household and female labor supply has to be interpreted keeping into account the fact that in this model the alternative to

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17 This model does not consider alimony, since data suggest that is a relatively infrequent transfer. Alimony in a this model would imply a reduction in the scope for self-insurance for women and in an increase in their bargaining power in unilateral divorce.
labor market participation is leisure. One could argue that, if home production was another option, a woman with very low bargaining power in her household may supply all of time to housework and domestic production in general, if that was beneficial for the household. But if leisure is the only alternative to labor market work, then the fact that it increases in a spouse’s bargaining power is a straightforward mechanism.

4 The data

I use data from the Panel Survey of Income Dynamics (PSID), the National Longitudinal Survey of Mature Women (NLS-MW), and the National Longitudinal Survey of Young Women (NLS-YW). These surveys provide longitudinal information on U.S. households from the end of the 1960s till the 2000s. In this paper, I exploit 26 waves of the PSID (between 1968 and 1993), 19 waves of NLS of Mature Women (between 1967 and 1999), and 20 waves of NLS of Young Women (between 1968 and 1999).

The PSID provides key information on labor force participation and income. I do not use data after the 1993 wave, since several important questions were significantly modified after this point.

The NLS-MW and NLS-YW are part of the Original Cohorts of the NLS. The NLS-MW was administered from 1967 to 2003 on an initial sample of 5,083 women who were between 30 and 44 years of age in 1967. The NLS-YW was administered from 1967 to 2003 on an initial sample of 5,159 women who were between 14 and 24 years of age in 1968. In addition to information on income, education and fertility, these surveys provide uniquely rich data on household assets holdings that is not available in other longitudinal surveys of the 1970s and 1980s. Since the NLS does not disclose state identifiers, I matched women to their state of residence using the geographical variables provided in the surveys. The geographical variables that I use to match women to their state of residence are the size of the labor market in the 1960 Decennial Census in the area of residence, an index of the demand for female labor in the area of residence and the Census division of residence. Since my model does not consider family formation, but takes couple matching as exogenous, my empirical analysis only considers couples that married before legal reforms took place: divorce laws may in fact also affect sorting into marriage. Thus, my sample includes women from the NLS and the PSID married before the introduction of unilateral divorce in

\[\text{18} \text{Since this information is only available for the waves between 1967 and 1971, I can only identify the state of residence for those survey respondents who do not change state between 1971 and 1999. Thus, I match 10,086 women out of 10,242 at least once in the sample, but for a total of 2,856 women, the state of residence eventually becomes unavailable as they are recorded changing it. On the one hand, to the extent that people do not change state because of divorce laws, I am unable to exploit variation in divorce laws that couples are exposed to as they change state of residence. On the other hand, since divorce laws may not be immediately salient, focusing on couples that have lived for a long time in the same state may decrease estimation error. A similar approach is used in Powers (1998) on the NLS-YM. I thank Jeff Gray for providing the list of geographical characteristics at the Primary Sampling Unit (PSU) level and the PSU-state matches.}\]
their state and before changes to divorce settlement laws.

5 Empirical analysis of divorce law reforms

5.1 The characteristics of the samples

The PSID provides detailed longitudinal information on female employment and divorce. Table (1) summarizes characteristics of the pooled sample of 3,874 women I analyze. Eighty-eight percent are married, while 12 percent are separated or divorced.\textsuperscript{19} Average female employment in the sample is 54 percent.

Table 1: Summary statistics of the PSID (1968-1993): Pooled sample of women married before divorce law reforms

<table>
<thead>
<tr>
<th></th>
<th>Obs.</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>52,818</td>
<td>40</td>
<td>41</td>
</tr>
<tr>
<td>Employment</td>
<td>52,818</td>
<td>0.54</td>
<td>1</td>
</tr>
<tr>
<td>Married</td>
<td>52,818</td>
<td>0.88</td>
<td>1</td>
</tr>
<tr>
<td>Number of children</td>
<td>52,818</td>
<td>1.66</td>
<td>1</td>
</tr>
<tr>
<td>Years since marriage</td>
<td>43,318</td>
<td>17</td>
<td>19</td>
</tr>
</tbody>
</table>

The NLSW provides uniquely rich data on household wealth. The women I analyze are slightly older than the PSID sample due to the sampling age of the initial cohort. Data on wealth is collected for a subset of years, leaving me with asset data for 4,538 couples. Assets include real estate, financial assets and business assets.\textsuperscript{20} Table (2) reports the average and median characteristics of this sample. Households assets average almost 70,000 and income averages approximately 38,000, both in real 1990 dollars. Asset holdings peak when women are 64 at a mean level of 127,000 real 1990 dollars. Seventeen percent of the pooled sample holds zero or negative total assets at a point in time.

Both the NLSW and the PSID record the marital status of survey responders. Nevertheless, it is difficult to precisely observe divorces, since households may fall out of the sample when divorce occurs. In the NLSW survey, 824 divorces are recorded in the sample of 5,131 (15 percent). The divorce hazard is 1.9 percent per year. Data on divorces on the PSID is also limited. The PSID does not collect information on former members of a household who drop out because of divorce, unless they were part of the initial 1968 cohort of surveyed families. In the PSID subsample that I consider, 884 divorces are recorded (22 percent).

\textsuperscript{19}I exclude widows from the sample.
Table 2: Summary statistics of the National Longitudinal Survey of Young and Mature Women (1967-1999): Pooled sample of couples married before divorce law reforms with non-missing assets data

<table>
<thead>
<tr>
<th></th>
<th>Obs.</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wife’s age</td>
<td>15,399</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Husband’s age</td>
<td>14,896</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>Assets (1990 dollars)</td>
<td>15,399</td>
<td>70,573</td>
<td>32,658</td>
</tr>
<tr>
<td>Household income (1990 dollars)</td>
<td>12,554</td>
<td>37,852</td>
<td>34,045</td>
</tr>
<tr>
<td>Number of children</td>
<td>15399</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Years since marriage</td>
<td>12,022</td>
<td>21</td>
<td>21</td>
</tr>
</tbody>
</table>

5.2 Quasi-experimental variation

I analyze the impact of the introduction of unilateral divorce and of equitable distribution on the intertemporal behavior of U.S. households, using data from both the NLSW and the PSID. I exploit state and year variation of divorce laws, as summarized in Table (14). Unilateral divorce was introduced at different points in time in 33 states between 1967 and 1992. In the same period, as is illustrated in section (3), all 27 states that had a title-based property division system adopted equitable distribution.

The sources of quasi-experimental variation that I will exploit are the introduction of unilateral divorce in different pre-existing property regimes (mainly, community property and title-based regimes) and the adoption of equitable distribution in states with different legal grounds for divorce (mutual consent and unilateral divorce).

Table 15 illustrates the number of observations that generate the quasi-experimental variation in the NLSW (assets) and the PSID (participation). Variation in divorce laws is concentrated in the following groups:

a) Introduction of unilateral divorce

a.1) in title-based regimes (398 households in the NLSW, 290 households in the PSID).

a.2) in community property regimes (653 households in the NLSW, 573 households in the PSID).

b) Introduction of equitable distribution

b.1) in mutual consent states (1,149 households in the NLSW, 1,701 households in the PSID).

b.2) in unilateral divorce states (206 households in the NLSW, 249 households in the PSID).
c) Introduction of both equitable distribution and unilateral divorce in the same year (233 households in the NLSW, 178 households in the PSID).\textsuperscript{21}

Other legal changes affected very few households. A small group of households experienced the transition into unilateral divorce as equitable distributions states (12 households in the NLSW and 87 households in the PSID): unilateral divorce usually preceded property division reforms. Last, only a few household adopt community property during the sample period, since Wisconsin was the only state that moved from an equitable distribution system to a community property regime in 1986.

In the next subsection, I analyze the impact of this policy variation on the accumulation of assets and the labor force participation of women.

5.3 Empirical analysis

The dynamic model described in section (3) does not provide a closed form solution. Nevertheless, it delivers a framework to interpret the effects of divorce laws reforms on the endogenous variables of the model, such as wealth accumulation or female labor supply.

5.3.1 Household wealth

To identify some of the channels through which divorce laws affect the accumulation of assets, I estimate the following equation, where $i$ denotes household, $t$ denotes year and $s$ the state of residence:

\[
assets_{it} = \beta_1 Unilateral_{st} + \beta_2 (Unilateral \cdot Com.Prop_{st}) \\
+ \beta_3 (Unilateral \cdot Eq.Distr_{st}) + \beta_4 Com.Prop_{st} + \beta_5 Eq.Distr_{st} \\
+ \gamma' Z_{it} + \delta_t + f_i + \epsilon_{it}. \tag{11}
\]

The dependent variable $assets$ represents total net assets for married couples, measured in real 1990 dollars.\textsuperscript{22} The vector $Z$ contains a set of controls, such as age dummies, state fixed effects and family structure, $\delta_t$ denote year fixed effects and $f_i$ household fixed effects.

I consider a vector of divorce regimes, both for property division and grounds for divorce. The excluded category is a title-based mutual consent system. Coefficient $\beta_1$ associated with the dependent variable $Unilateral$ captures the effect of unilateral divorce with respect to

\textsuperscript{21}This group includes those states where the two legal reforms took place in two subsequent years.

\textsuperscript{22}Because this analysis is conducted on a sample of married samples, I consider the possibility that the results may be driven by non-random attrition due to different characteristics of divorcing couples across legal regimes. I use Inverse Probability Weighting to ensure that results are not driven by non-random attrition (subsection 6.1).
mutual consent divorce in title-based states. Thus, the channels through which unilateral divorce affect household saving behavior in title-based states are common to all property regimes. In fact, \( \beta_1 \) captures the effect that is due to consumption smoothing against the increased risk of loosing the marriage surplus (economies of scale) and the effect due to the possibility of re-bargaining on the divorce outside option based on spouses’ labor incomes.

Coefficients \( \beta_2 \) (Uni·Com.Prop.) and \( \beta_3 \) (Uni·Eq.Distr.) capture the additional effect of unilateral divorce in community property and equitable distribution states beyond the effect described by \( \beta_1 \) (Table 3). Thus, these coefficients capture the impact of unilateral divorce in states where courts divide assets disregarding the title of property, beyond the impact that is observed in title-based states. This corresponds to three mechanisms in the model. First, it captures the effect due to the change in individual returns on assets that occurs when unilateral divorce is introduced in these property division regimes. Second, it also captures the effect due to household re-bargain when spouses' outside options in divorce are affected by property division laws. Third, if one spouse has a high preference for marriage, it may be optimal to lower the outside option of the spouse who prefers divorce by dissaving and thus by increasing the commitment to the marriage. It is impossible to separately identify the magnitude of these channels.

Furthermore, in the model the difference between \( \beta_3 \) and \( \beta_2 \) captures the effect of uncertainty in the allocation of assets upon divorce.

Coefficient \( \beta_4 \) (Com.Prop.) measures the average difference in assets between title-based and community property states in mutual consent regimes. Since it is identified by those households who change state from a title-based state to a community property state between 1967 and 1971 in the NLSW dataset and by no quasi-experimental variation, it is not an

\[ y_{it} = \alpha_0 + \alpha_1 (\text{Mutual}_{it} \cdot \text{Title}_{it}) + \alpha_2 (\text{Mutual}_{it} \cdot \text{Com.Prop}_{it}) + \alpha_3 (\text{Mutual}_{it} \cdot \text{Eq.Distr}_{it}) + \alpha_4 (\text{Unilateral}_{it} \cdot \text{Title}_{it}) + \alpha_5 (\text{Unilateral}_{it} \cdot \text{Com.Prop}_{it}) + \alpha_6 (\text{Unilateral}_{it} \cdot \text{Eq.Distr}_{it}) + \gamma' Z_{it} + \delta_i + f_i + \epsilon_{it}. \]

The coefficients of this equation are not all identified as the six divorce law combinations are collinear. The equation can be rewritten as equation (11), where \( \beta_1 \) represents the difference between mutual consent and unilateral divorce in a title regime (thus \( \alpha_4 - \alpha_1 \)), \( \beta_4 \) represents the difference between community property and title-based mutual states in mutual consent (\( \alpha_2 - \alpha_1 \)) and \( \beta_5 \) the difference between equitable distribution and title-based states again in mutual consent (\( \alpha_3 - \alpha_1 \)). The coefficient \( \beta_2 \) represents the difference between the effect of the introduction of unilateral divorce in an community property state and in a title-based state:

\[ \beta_2 = (\alpha_5 - \alpha_2) - (\alpha_4 - \alpha_1). \]

Similarly, for equitable distribution,

\[ \beta_3 = (\alpha_6 - \alpha_3) - (\alpha_4 - \alpha_1) = (\alpha_6 - \alpha_4) - (\alpha_3 - \alpha_1) \]

and thus also it indicates the effect of the introduction of equitable distribution in equitable distribution states, which is an experiment that occurs in the data. The excluded category is thus Mutual·Title, which is identified by the fixed-effects together with the constant term \( \alpha_0 \).
Table 3: Interpretation of coefficients

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\beta_1$</td>
<td>Smoothing of economies of scale, Re-bargain on income</td>
</tr>
<tr>
<td>$\beta_2$</td>
<td>Income effect, Substitution effect, Re-bargain on income and assets</td>
</tr>
<tr>
<td>$\beta_3$</td>
<td>$\beta_2$+Uncertainty</td>
</tr>
<tr>
<td>$\beta_4$</td>
<td>No quasi-experimental variation</td>
</tr>
<tr>
<td>$\beta_5$</td>
<td>Income effect, Substitution effect</td>
</tr>
</tbody>
</table>

reliable estimate.\textsuperscript{24}

Last, coefficient $\beta_5$ (\textit{Eq.Distr.}) measures the average wealth difference due to the introduction of equitable distribution in title-based states in mutual consent regimes. The introduction of equitable distribution in unilateral divorce states is also captured by coefficient $\beta_3$.

In the model, the introduction of equitable distribution has three main effects on households: it affects spouses’ returns on saving, it may change their outside option and it introduces uncertainty in the division of assets. These effects are captured by the coefficients of equation (11), though it is impossible to separately identify all of them.

Table 4 reports the results of the estimation of equation (11) using fixed-effect OLS regressions, for different specifications. Column (1) is the baseline specification that includes age dummies for the wife, year fixed-effects and individual fixed effects. Column (2) controls for a polynomial in the husband’s age, which is missing for some households. Column (3) controls for state fixed effects, which may not be entirely captured by individual fixed effects if people change state of residence. Column (4) uses the natural logarithm of household assets as dependent variable, instead of the level of assets.

The coefficient $\beta_1$, which represent the effect of unilateral divorce in title property states is equal to -5,738 (column (3)) and is not statistically significant. This suggest that the consumption smoothing effect that is common to all property regimes may not have been important as it did not lead to an increase in household assets. Also, it suggests that intra-household re-bargain due divorce outside options in a title-based regime may not have influences household saving behavior.

On the contrary, coefficients $\beta_2$ and $\beta_3$ are equal to 15,090 and 16,995 real dollars (corresponding to 21% and 24% of average assets) and both statistically significant at the 5 percent level, suggesting that the additional effect of unilateral divorce in equitable distribution and community property states is relevant. The average increase in household assets in community property states and equitable distribution states when unilateral divorce is introduced

\textsuperscript{24}As explained above, changes of state are not measured after 1971. Furthermore, only Wisconsin introduced community property in this sample, in 1986, after the introduction of unilateral divorce.
(β₁ + β₂ and β₁ + β₃) is equal to respectively 9,352 real dollars and 11,257 real dollars, about 13% and 16% of average wealth.

The effects of the transition from title-based regimes to equitable distribution (β₅) is equal to -17,300 real dollars but is generally not statistically significant.

The results of the estimation in the first four specifications in Table 4 are very similar. However, estimating equation (11) with the logarithm of assets as dependent variable does not lead to statistically significant results: the equation can only be estimated on household that have positive assets, and thus would ignore observations for households that had negative net assets. If part of the effect is driven by household that reduce or eliminate their debts when divorce laws change, dropping households with negative assets would no allow to cosider this channel.

The distribution of wealth is very skewed: the 25th percentile is equal to 4,025 real 1990 dollars, the median to 32,658 real dollars and the 75th percentile to 79,891 real dollars. I thus replicate the analysis using quantile regressions, that are robust to the skewness in the distribution of the dependent variable and allows to understand the behavior of households at various quantiles. The median regression (Table 5) confirms my earlier findings on the effect of unilateral divorce. Furthermore, the estimated coefficient β₅ is equal to 6,240 real dollars and statistically significant at the 1 percent level (column (1), median regression), suggesting that the introduction of equitable distribution, when mutual consent divorce is in place, increases accumulated wealth, though significantly less than in unilateral divorce states. Regressions for the 25th and for the 75th percentile show similar patterns, with the effect being stronger among the third quartile in absolute terms, but among the first quartile as a share of the level of assets at that quartile.

The finding that community property and equitable distribution encourage household savings, especially when unilateral divorce is in place is not simple to interpret. Depending on the average level of women’s bargaining power in U.S. households at the time of divorce law reforms, two are the candidate explanation, according to the model. The first is the presence of an income effect for the primary earner (i.e. the husband) in the household if women ha da low weight. The second is that equal division of assets grants less money to secondary earner if she has just as much bargaining power as the primary earner. Thus, the household increases asset accumulation to insure that the secondary earner can smooth the marginal utility of her consumption. Moreover, the introduction of unilateral divorce may have altered the initial distribution of power in the household and thus generate additional savings again.

To interpret this finding, thus, we have to infer the distribution of power inside the household. In section 7 I will thus directly estimate the bargaining weight of men.
Table 4: **Household assets: household fixed effects regressions**

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) assets</th>
<th>(2) assets</th>
<th>(3) assets</th>
<th>(4) ln(assets)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unilateral</td>
<td>-6102</td>
<td>-5988</td>
<td>-5738</td>
<td>-0.0974</td>
</tr>
<tr>
<td></td>
<td>(6774)</td>
<td>(6725)</td>
<td>(6866)</td>
<td>(0.0869)</td>
</tr>
<tr>
<td>Uni*Eq.Distr.</td>
<td>15373**</td>
<td>15362**</td>
<td>15090*</td>
<td>0.0888</td>
</tr>
<tr>
<td></td>
<td>(7482)</td>
<td>(7128)</td>
<td>(7565)</td>
<td>(0.0935)</td>
</tr>
<tr>
<td>Uni*Com.Pr.</td>
<td>17555**</td>
<td>16971*</td>
<td>16995*</td>
<td>0.0341</td>
</tr>
<tr>
<td></td>
<td>(8541)</td>
<td>(8477)</td>
<td>(8590)</td>
<td>(0.0882)</td>
</tr>
<tr>
<td>Eq.Distr.</td>
<td>-14781</td>
<td>-15460*</td>
<td>-14936</td>
<td>-0.136*</td>
</tr>
<tr>
<td></td>
<td>(8947)</td>
<td>(8968)</td>
<td>(9009)</td>
<td>(0.0787)</td>
</tr>
<tr>
<td>Com.Pr.</td>
<td>13877</td>
<td>14009</td>
<td>68606***</td>
<td>0.0433</td>
</tr>
<tr>
<td></td>
<td>(14575)</td>
<td>(14523)</td>
<td>(13946)</td>
<td>(0.316)</td>
</tr>
<tr>
<td>Age fixed effects</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Year fixed effects</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Husband age</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>State fixed effects</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Children</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Observations</td>
<td>15399</td>
<td>14896</td>
<td>15399</td>
<td>12730</td>
</tr>
<tr>
<td>Household fixed effects</td>
<td>4538</td>
<td>4363</td>
<td>4538</td>
<td>3999</td>
</tr>
</tbody>
</table>

Standard errors in parentheses, clustered at the state level

*** p<0.01, ** p<0.05, * p<0.1

Note: Data from the NLS of Young and Mature Women. Sample of couples married before legal reforms. Dependent variable is real total family net assets. Excluded category for divorce laws: title-based mutual consent regime.
5.3.2 Female employment

Female employment is another endogenous variable of my model that is likely to be affected by divorce laws.

To analyze this impact, I estimate the following equation using linear probability models and fixed-effect logit regressions:

\[
employment_{it} = \beta_1 Unilateral + \beta_2 (Unilateral \cdot Eq.Distr_{st}) + \beta_3 (Unilateral \cdot Com.Prop_{st}) + \beta_4 Com.Prop_{st} + \beta_5 Eq.Distr_{st} \\
+ \gamma'Z_{it} + \delta_t + f_i + \epsilon_{it}
\] (12)

This equation is analogous to equation (11).
Estimation of equation (12) suggest that unilateral divorce had a generally negative effect on female employment, but statistically insignificant. However, in community property states women employment lowers by 5.9 percentage points when unilateral divorce is introduced (10.9 percent of average female employment) and the effect is statistically significant at the 1 percent level (Table 6). This finding is robust to controlling for the number of children in the household (Table 6, col. 3).

Appendix table (16) reports the results of estimating equation (12) using fixed-effects logit. This estimation method leads to similar results as the OLS, but shows that unilateral divorce may have a had a positive and statistically significant effect in lowering female employment also in equitable distribution states.

These results are supported by what found in Chiappori et al. (2002), who estimate labor supply for a cross-section of couples in the PSID: in their sample, female labor supply is lower in community property states. Similarly, Kapan (2009) finds an decrease in women’s labor supply in England and Wales following a 2000 House of Lords decision that entitled women to a higher share of household assets upon divorce.

However, Gray (1998) and Stevenson (2007) came to different conclusions. While Gray finds that unilateral divorce increases female participation in community property states, Stevenson finds that property division regimes do not affect female labor participation, which always increases with unilateral divorce. My approach differs from previous work on various dimensions. First of all, it only examines the effect on couples married before legal reforms, therefore excluding any potential effect that divorce laws may have on household formation. Second, it uses a more updated classification of divorce law reforms: both samples in Gray (1998) and Stevenson (2007) contain 17 states that were title-based for the entire duration of the panel, while I include the transitions of all these states into equitable distribution.

My findings suggest that unilateral divorce may have increased women’s bargaining power, especially in those states where courts were awarding them at least 50 percent of assets. This is compatible with the hypothesis that women’s power was low enough that an equal division rule improved their condition, thus granting them with more bargaining power in the family. Moreover, the additional assets reduced their need for accumulation of human capital as self-insurance against the risk of loss of consumption in the event of a divorce. The decrease in female labor supply with unilateral divorce in community property or equitable distribution states place will be an identifying moment of my structural estimation exercise.

Analysis of hours worked by men lead to results with opposite sign: men slightly increase their labor supply when unilateral divorce is introduced in community property states (Appendix B.2). This is additional evidence that supports the hypothesis that the bargaining power of women may have increased as a consequence of unilateral divorce in community property states.
Table 6: Employment of married and divorced women: Linear Probability model

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>employment</td>
<td>employment</td>
<td>employment</td>
<td>employment</td>
</tr>
<tr>
<td>Unilateral ((\beta_1))</td>
<td>-0.0293</td>
<td>-0.0368</td>
<td>-0.0348</td>
<td>-0.0404</td>
</tr>
<tr>
<td></td>
<td>(0.0333)</td>
<td>(0.0377)</td>
<td>(0.0374)</td>
<td>(0.0402)</td>
</tr>
<tr>
<td>Uni*Com.Prop. ((\beta_2))</td>
<td>-0.0104</td>
<td>-0.0221</td>
<td>-0.0220</td>
<td>-0.0103</td>
</tr>
<tr>
<td></td>
<td>(0.0365)</td>
<td>(0.0406)</td>
<td>(0.0403)</td>
<td>(0.0416)</td>
</tr>
<tr>
<td>Uni*Eq.Distr. ((\beta_3))</td>
<td>0.000645</td>
<td>-0.00214</td>
<td>0.00299</td>
<td>-0.0176</td>
</tr>
<tr>
<td></td>
<td>(0.0373)</td>
<td>(0.0376)</td>
<td>(0.0377)</td>
<td>(0.0455)</td>
</tr>
<tr>
<td>Eq.Distr. ((\beta_4))</td>
<td>-0.00296</td>
<td>-0.00392</td>
<td>-0.00398</td>
<td>-0.00207</td>
</tr>
<tr>
<td></td>
<td>(0.0152)</td>
<td>(0.0152)</td>
<td>(0.0155)</td>
<td>(0.0176)</td>
</tr>
<tr>
<td>Com.Prop. ((\beta_5))</td>
<td>0.0244</td>
<td>0.143***</td>
<td>0.137***</td>
<td>0.121**</td>
</tr>
<tr>
<td></td>
<td>(0.0243)</td>
<td>(0.0448)</td>
<td>(0.0463)</td>
<td>(0.0504)</td>
</tr>
<tr>
<td>Wife’s age dummies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Year fixed effects</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Polyn. time since marriage</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Children</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>State f.e.</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Observations</td>
<td>52,818</td>
<td>52,818</td>
<td>52,818</td>
<td>43,318</td>
</tr>
<tr>
<td>Household f.e.</td>
<td>3,874</td>
<td>3,874</td>
<td>3,874</td>
<td>2,690</td>
</tr>
<tr>
<td>P-value Uni+Com.Pr.=0</td>
<td>0.04**</td>
<td>0.00***</td>
<td>0.00***</td>
<td>0.00***</td>
</tr>
<tr>
<td>P-value Uni+Eq.Distr.=0</td>
<td>0.28</td>
<td>0.26</td>
<td>0.38</td>
<td>0.10*</td>
</tr>
</tbody>
</table>

Note: Data from the PSID. Sample of couples married before legal reforms and divorced or separated women. Dependent variable is female employment status. Excluded category for divorce laws: title-based mutual consent regime.

6 Robustness checks and additional evidence

6.1 Sample selection in the asset regression

The household assets equation is estimated on a sample of married couples. This may generate the concern that non-random attrition, due to different likelihood of divorce across divorce laws, may be driving the results. For instance, if in community property couples with fewer assets were more likely to get divorced and thus to fall out of the sample than in title-based regimes, the average level of asset would be higher in community property because
of a selection mechanism. I use Inverse probability Weighting (IPW, Wooldridge 2002) to account for differential non-random attrition of couples from the sample due to divorce. This method allows to re-weight the observations to counteract the effect of non-random attrition on the composition of the sample. I describe this procedure in detail in Appendix C. Re-estimating equation (11) with IPW leads to very similar results than without accounting for non-random attrition, suggesting that the composition of the sample of married people does not affect the regression results.

6.2 Effects over time and pre-existing trends

Assets may take time to respond to legal changes. First of all, this may occur if these changes are not immediately salient to households. Second, asset level may take a few years to reach the new optimal level, as consumption smoothly adjusts to allow for more or less savings.

Furthermore, assets response in the post-treatment period may be confounded with pre-existing trends in asset accumulation across states.

To analyze the dynamic effect of the introduction of unilateral divorce and separate it from pre-existing trends in different regimes, I add to equation (11) a separate linear time trend for all states that will eventually introduce unilateral divorce, by property division regime, and a time trend for the number of years since the introduction of unilateral divorce, again by property division regime. This allows to consistently estimate pre-existing time trends separately from treatment-specific time trends:

\[
assets_{it} = \beta_1 \text{Unilateral}_{st} + \beta_2 (\text{Uni} \cdot \text{Com.Prop}_{st}) + \beta_3 (\text{Uni} \cdot \text{Eq.Distr.}_{st}) \\
+ \mu_1 (\text{Uni} \cdot \text{Time}_{st}) + \mu_2 (\text{Uni} \cdot \text{Com.Prop} \cdot \text{Time}_{st}) \\
+ \mu_3 (\text{Uni} \cdot \text{Eq.Distr.} \cdot \text{Time}_{st}) \\
+ \zeta_1 (\text{Ever Uni} \cdot \text{Time}_{st}) + \zeta_2 (\text{Ever Uni} \cdot \text{Com.Prop} \cdot \text{Time}_{st}) \\
+ \zeta_3 (\text{Ever Uni} \cdot \text{Eq.Distr.} \cdot \text{Time}_{st}) \\
+ \beta_4 \text{Com.Prop.}_{st} + \beta_5 \text{Eq.Distr.}_{st} \\
+ \gamma'Z_{it} + \delta_i + \epsilon_{it}.
\]

Figure (1) represents the trends of household assets since the introduction of unilateral divorce by property division regimes. Controlling for pre-existing trends still preserves the positive and statistically significant growth of assets in community property and equitable distribution states, while title-based regimes exhibit a much smaller positive trend, not statistically different from zero.\textsuperscript{25}

\textsuperscript{25}Coefficient for unilateral time trend in all states: -781 (p-value: 0.51). Coefficient for additional unilateral time trend in community property states: 3583 (p-value: 0.10). Coefficient for additional unilateral time trend in equitable distribution states: 3370 (p-value: 0.06). Coefficient for pre-existing time trend in all states
Figure 1: Dynamic effect of introduction of unilateral divorce, controlling for pre-existing time trends

![Figure 1](image)

*Note: Data from NLSW. Sample of couples married before legal reforms. Dependent variable is real total family net assets. Excluded category for divorce laws: title-based mutual consent regime.*

### 6.3 Effects over the life-cycle

Divorce laws also have an effect on the patterns of wealth accumulation over the life-cycle. Figure (2) represents the profiles of asset accumulation obtained by estimating the following equation for four combinations of divorce laws (title and mutual, title and unilateral, community property or equitable distribution and mutual, community property or equitable distribution and unilateral):

\[
assets_{it} = f(age_{it}) + \delta_t + f_i + \epsilon_{it}.
\]

where \(f(\cdot)\) is a polynomial of fourth degree and imposes wealth to be zero at age 22 (since the profiles are estimated starting at age 23), so that all profiles have no constant term (which is identified by the fixed effects). The figure suggests that households are likely to accumulate assets faster in unilateral divorce than in mutual consent divorce. They also accumulate more assets over the life cycle in community property or equitable distribution than in title-based regime.

who adopt unilateral divorce: 1100 (p-value: 0.24). Coefficient for pre-existing time trend in community property states: -440 (p-value: 0.83). Coefficient for pre-existing time trend in equitable distribution states: -1161 (p-value: 0.22). Coefficient for community property and unilateral divorce: -4176 (p-value: 0.32). Coefficient for equitable and unilateral divorce: -9328 (p-value: 0.52).
Figure 2: Asset accumulation over the life cycle, by divorce law regime

Note: Data from NLSW. Sample of couples married before legal reforms. Dependent variable is real total family net assets.

7 Structural estimation

Divorce law reforms had two main effects on the outcomes analyzed in the last two sections section. The presence of both equitable distribution or community property and of unilateral divorce is associated with 16 percent higher assets and 6 percentage points lower female employment than with mutual consent divorce. The same changes are not observed when unilateral divorce was introduced in title-based states. These findings cannot be explained by changes in sorting in or out of marriage.

To interpret these results and obtain welfare measures of their effects, I estimate some of the structural parameters of this model and obtain the others from the literature.

In the current version of this paper, I estimate the following parameters

a) the bargaining power of the husband $\theta_0$ before the introduction of unilateral divorce.

b) the variance of preference shocks $\sigma^2_{\epsilon}$

c) the disutility from labor market participation $\psi$

d) nine parameters from spouses’ income processes: the variance of each spouse’s permanent income shocks $\sigma^2_{\xi_j}$ for $j = H, W$, the covariance of such shocks $\sigma_{\xi_H, \xi_W}$, the returns to labor market experience for each spouses $\lambda^j_0$ and $\lambda^j_1$, the depreciation rate of non-participation for women $\delta$ and the offer wage gender gap at the beginning of the career.
The nine income process parameters are I estimated outside of the model. I choose the remaining parameters as described in Table (8).

7.1 Estimation of spouses’ income processes

I first estimate the income shocks parameters for the couple using spouses’ income data from the PSID by non-linear least squares.\(^\text{26}\) Identification of such parameters is described in detail in Appendix D. I estimated the income process parameters for men on the sample of all married men and the parameters for women only on a sample of working women, using divorce laws as excluded variables in the wage equation which allow to correct for the selection of women in the labor force.

I estimate the parameters using non-linear least squares and maximum likelihood (Table 7). Three facts are worth noticing from this exercise. First of all, the estimated offer wage gender gap at age 23 is 86\% (that is, women earn on average 86\% of men’s income when they enter the labor market). Second, the rate of growth of income for men is faster than the rate of growth for women: about 11\% per year (at the beginning of the career for men, but decreasing with age) and 6\% for women. This could reflect the fact that women suffer a wage penalty when they have children (Miller, 2009). Third, according to these estimated variances, the income of men is more variable than that of women. This results can also be easily interpreted if one considers the different riskiness of sectors that often employ women (e.g. health and education) versus sectors with higher shares of men (e.g. construction, agriculture, finance).

\(^{26}\text{See Blundell, Pistaferri and Preston (2006) and Low, Meghir and Pistaferri (2008) for estimation of men’s income shocks parameters.}\)
Table 7: Parameters of the income process

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>s.e.</th>
</tr>
</thead>
<tbody>
<tr>
<td>W’s returns to experience (constant)</td>
<td>$\lambda_0^W$</td>
<td>0.089 (0.040)</td>
</tr>
<tr>
<td>W’s returns to experience (age)</td>
<td>$\lambda_1^W$</td>
<td>-0.002 (0.0004)</td>
</tr>
<tr>
<td>W’s human capital depreciation</td>
<td>$\delta$</td>
<td>0.029 (0.019)</td>
</tr>
<tr>
<td>H’s returns to experience (constant)</td>
<td>$\lambda_0^H$</td>
<td>0.097 (0.009)</td>
</tr>
<tr>
<td>H’s returns to experience (age)</td>
<td>$\lambda_1^H$</td>
<td>-0.005 (0.0003)</td>
</tr>
<tr>
<td>Initial offer wage gender gap</td>
<td>$\frac{y^W_H}{y^H_W}$</td>
<td>0.858 (0.044)</td>
</tr>
<tr>
<td>Variance of W’s income shock</td>
<td>$\sigma^2_{\xi^W}$</td>
<td>0.024 (0.002)</td>
</tr>
<tr>
<td>Variance of H’s income shock</td>
<td>$\sigma^2_{\xi^H}$</td>
<td>0.077 (0.017)</td>
</tr>
<tr>
<td>Covariance of H’s and W’s income shocks</td>
<td>$\sigma_{\xi^H\xi^W}$</td>
<td>0.005 (0.002)</td>
</tr>
</tbody>
</table>

Note: Standard errors for parameters $\lambda_0^W$, $\lambda_1^W$, $\lambda_0^H$ and $\lambda_1^H$ computed by maximum-likelihood. Standard errors for parameters $\sigma^2_{\xi^H}$, $\sigma^2_{\xi^W}$, $\sigma_{\xi^H\xi^W}$ and $\delta$ (which are estimated in two stages) computed by bootstrap to account for first-stage estimation errors.

7.2 Estimation method: indirect inference

I use indirect inference (Gourieroux et al. 1993) to estimate the key parameters of the model, exploiting the variation provided by the quasi-experiment as source of identification. Indirect inference estimates the structural parameters by means of an auxiliary model. The estimation of the auxiliary model will deliver a vector of auxiliary coefficients $\hat{\phi}$.

I solve the dynamic model under mutual consent divorce for vectors of possible values of parameters $\Xi = (\theta \sigma^2_\epsilon \psi)'$, given initial values of the state variables and the realization of the shocks.

I draw the shocks $\{\xi^j_{it}\}_{i=1}^I$ and obtain vectors of $\{\xi^j_{it}\}_{i=1}^I$ and $\{y^j_{it}\}_{i=1}^{I}$ for $I = 5,000$ households, for spouses $j = H, W$ and for $T - R = 14$ periods and use the policy functions to obtain simulated patterns for household assets, female labor participation and divorce decision.27

I then simulate the introduction of unilateral divorce at various stages of the life cycle that match those in the data and simulate the post-reform patterns for household assets, female labor participation of divorce behavior. I then estimate the same auxiliary model on the simulated data and obtain a vector of coefficients $\hat{\phi}_{sim}(\theta, \sigma^2_\epsilon, \psi)$. The optimal choice of $\hat{\theta}, \sigma^2_\epsilon, \hat{\psi}$ minimizes the difference between coefficients estimated on the actual data and coefficients estimated on the simulated data.

---

27I focus on the pre-retirement period for two reasons. First, because my estimates in the previous section are based on a sample of non-retired people. Second, since attrition for death in my sample is higher past age 65 and I only have attrition for death in the data, but not in the model, excluding retired people minimizes the relevance of attrition.
I thus pick $\Xi = (\theta \sigma^2 \epsilon \psi)'$ such that:

$$\hat{\Xi} = \text{Argmin}_{\Xi} (\hat{\phi} - \phi_{\text{sim}}(\Xi)) W^{-1} (\hat{\phi} - \phi_{\text{sim}}(\Xi))'$$

(14)

where $W$ is a weighting matrix.

As auxiliary model, I use a differences-in-differences estimator for the introduction of unilateral divorce in states at different points in time. To ease the computational burden, I estimate the parameters on the sample in community property states, and use the other regimes for post-estimation validation.

The auxiliary model takes the form:

$$\text{assets}_{it} = \beta_1 \cdot \text{Unilateral}_{it} + \gamma_{\text{age},i,t} + u_{1it} \quad \phi_1 = \frac{\beta_1}{\text{mean(assets)}}$$

(15)

$$\text{female participation}_{it} = \phi_2 \cdot \text{Unilateral}_{it} + \delta_{\text{age},i,t} + u_{2it}$$

$$\text{female participation}_{it} = \phi_3 + v_{3it}$$

in a mutual consent regime

$$\text{divorce}_{it} = \phi_4 + v_{4it}$$

in a mutual consent regime.

I match the following facts between the actual and the simulated data for community property states:

a) the relative change in household assets when unilateral divorce is introduced (19%);

b) the response of female participation when unilateral divorce is introduced (5.5 percentage points);

c) the average female participation rate in mutual consent (51%);

d) the average divorce rate in mutual consent states (21%).

by choosing the appropriate values of $\theta$, $\sigma^2 \epsilon$ and $\psi$.

I estimate equations (15) on the simulated data. I also estimate the same equations on the PSID and NLSW data, controlling for state fixed-effects and year fixed-effects, and set the weighting matrix to be equal to the variance-covariance matrix of the estimated parameters of the auxiliary model: $W = \text{Var}[\hat{\phi}]$.28

7.3 Identification

The identification of the structural parameters comes from the link between the auxiliary model and the structural model that is imposed by theory. Such link is stronger between some combination of parameters that I describe below.

28I obtain $\text{Var}[\hat{\phi}]$ using block bootstrap at the state level. Since $\phi_1$ is estimated on a different sample that $\{\phi_2, \phi_3, \phi_4\}$, I set $\text{Cov}(\phi_1, \phi_2) = \text{Cov}(\phi_1, \phi_3) = \text{Cov}(\phi_1, \phi_4) = 0$. 28
7.3.1 The utility cost of participation parameter $\psi$

The main role of the utility cost of participation ($\psi$) in the model is determining a woman’s labor market participation decision. Namely, *ceteris paribus* a woman is more likely to participate in the labor market the lower her disutility from working. Thus, the average female employment rate is the parameters of the auxiliary model that provides identification for the structural parameter $\psi$ (Figure 3 panel a). With the purpose of simplifying computation, I choose to estimate such average only on a sample of households living in mutual consent states.

7.3.2 The variance of the preference shock parameter $\sigma^2_\epsilon$

Similarly, the variance of the preference shock parameter ($\sigma^2_\epsilon$) influences the likelihood of divorce. For low values of $\sigma^2_\epsilon$, divorce is an unlikely phenomenon, since few spouses would receive negative shocks $\xi^j$ sufficiently high to counter-act the positive effect of marriage that derives from the economies of scale parameters. As $\sigma^2_\epsilon$, the likelihood that a spouse would prefer divorce increases. Therefore, identification of parameters $\sigma^2_\epsilon$ comes from the average divorce rate in mutual consent states (Figure 3 panel b).

**Figure 3: Identification of the parameters**

(a) Disutility from participation ($\psi$)  
(b) Variance of marriage preference shocks ($\sigma^2_\epsilon$)

7.3.3 The bargaining weight parameter $\theta$

The bargaining weight parameter $\theta$ is very important in this model, since it determines spouses’ sharing rule of resources inside marriage and thus their incentives work and to postpone consumption to the future by saving depending on the property division law and the grounds for divorce. Thus, the response of household behavior to changes in such laws
provides identification for the parameters $\theta$. In particular, the estimated response of female labor participation to the introduction of unilateral divorce is decreasing in the bargaining power of men.

Figure 4: Identification of husband’s bargaining power ($\theta$)

![Graph showing identification of husband's bargaining power](image)

### 7.4 Exogenous parameters

To ease the computational burden, I set each period to correspond to 3 years of life. Spouses have the same life cycle: they are 23 years old at time 1, they retire at 65 at time 15 and die with certainty at time 18, at age 79.

I calibrate the economies of scale parameter $\rho$ to match the McClements scale, according to which a single spends 61 percent of a childless couple to achieve the same level of consumption. Such scale represents an intermediate value for the magnitude of economies of scale in the family estimated in the literature (Fernandez-Villaverde and Krueger 2007). This calibration leads to a parameter value of 1.4023.29

Parameters from the utility function and from spouses’ income profiles are from Attanasio et al. (2008). The relative risk aversion $\gamma$ is set to 1.5. I set the market rate of return on assets $r$ to 0.03 and the discount factor $\beta$ to 0.98, as in Mazzocco et al. (2007).

I use data from the National Longitudinal Survey of Young and Mature Women (described in section 4) to calibrate the number of children (two) and the age at childbearing (average age in the data is 26 and 29) and use CEX data for childcare expenditure following Attanasio et al. (2008).

According to the McClements scale, $0.61z = 1c^j$. Under the assumption that spouses have identical bargaining power, $c^j = c^H = c^W$, the household inverse production function becomes $z = 2^\frac{1}{\rho}c^j$. Thus $\rho = \frac{\log(2)}{\log(0.61)} = 1.4023$. I also consider robustness check with alternative values for the household economies of scale indicated in Fernandez-Villaverde and Krueger (2007).
Table 8: **Exogenous parameters of the model**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial age</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Years in each period</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Age at death</td>
<td>$23 + 3 \cdot T$</td>
<td>79 (79)</td>
</tr>
<tr>
<td>Retirement age</td>
<td>$23 + 3 \cdot (T - R + 1)$</td>
<td>65 (65)</td>
</tr>
<tr>
<td>Economies of scale</td>
<td>$\rho$</td>
<td>1.4023 (McClements scale)</td>
</tr>
<tr>
<td>Relative risk aversion</td>
<td>$\gamma$</td>
<td>1.5 (Attanasio et al. (2008))</td>
</tr>
<tr>
<td>Market returns on assets</td>
<td>$r$</td>
<td>0.03 (Attanasio et al. (2008))</td>
</tr>
<tr>
<td>Discount factor</td>
<td>$\beta$</td>
<td>0.98 (Attanasio et al. (2008))</td>
</tr>
<tr>
<td>W’s age at childbearing</td>
<td>26 and 29 (NLSW)</td>
<td></td>
</tr>
<tr>
<td>Childcare costs</td>
<td>$ChC$</td>
<td>CEX (CEX)</td>
</tr>
</tbody>
</table>

### 7.5 Estimation results

Table (9) represents the solution to problem (14). The parameters are chosen to minimize the objective function, given the simulated moments reported in Table (??).\(^{30}\)

Table 9: **Estimated structural parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Husbands’ initial bargaining power $\theta_0$</td>
<td>0.65</td>
</tr>
<tr>
<td>Standard deviation of preference shocks $\sigma^2_\epsilon$</td>
<td>0.08</td>
</tr>
<tr>
<td>Disutility from labor market participation $\psi$</td>
<td>0.008</td>
</tr>
</tbody>
</table>

Standard errors are calculated as suggested in Gourireux *et al.* (1993) by obtaining a

\(^{30}\)I run a global specification test (Gourireux *et al.* 1993). Under the null that the dynamic model is correctly specified, the statistic

$$TH \frac{min_{\theta,\sigma^2,\psi}(\hat{\phi} - \phi_{sim}(\Xi))W^{-1}(\hat{\phi} - \phi_{sim}(\Xi))'}{1 + H}$$

is distributed as a $\chi^2$ with $q - p$ degrees of freedom, where $q = dim(\phi)$ and $p = 3$ is the number of estimated coefficients.
numerical derivative of the binding function.\textsuperscript{31}

The structural estimation exercise indicates that, when unilateral divorce was introduced in the sample, women had a much lower weight in household decision than their husbands.

Moreover, the estimated variance for the preference shock is such that, if the realization of the shock is equal to one standard deviation ($\xi_j^2 = \sigma$), the preference shock would correspond to the utility provided by approximately 44 percent additional consumption each year.

\section*{7.6 Welfare analysis}

The simulation exercise suggests that common property is beneficial to women in divorce, compared to title-based division: with $\theta_0 = 0.65$, women in divorce obtain about 70 percent more assets in community property than in a title-based regime. On the contrary, men receive an average of 18 percent less assets in a divorce in community property than in a title-based regime.

The introduction of unilateral divorce increased the bargaining power of married women by 4 percentage points in community property states, which corresponds to an increase in consumption of 3 percent. While this change may appear low, it is substantial for those households that did re-bargain, which were only those where one spouse was indifferent between marriage and divorce.

Previous findings on unilateral divorce support this result, suggesting that unilateral divorce lead to a decrease in domestic violence against women (Stevenson and Wolfers, 2006), which could have been related to an increase in their bargaining power. Other studies are often unable to separately identify whether the effect of unilateral divorce was due to a change in the behavior of married couples or to a compositional effect, such as a higher likelihood of divorce among couples where women were the subject of domestic violence or were in an unfavorable position. My model allows to separately identify these channels, since both selection and re-bargain are modeled, and to show that sorting into divorce is not the only driver of changes in household behavior.

This increase in the bargaining power of women is driven by the fact that in community property and equitable distribution regimes women with initial low bargaining power are awarded more resources that what they consume in marriage, and this contributes to making the divorce option more attractive to them, and thus a valid threat-point.

\textsuperscript{31}Namely, I compute the variance-covariance matrix of as

\[ Var(\hat{\Xi}) = \left( 1 + \frac{1}{H} \right) \left[ \frac{\partial \hat{\phi}}{\partial \hat{\Xi}} W \frac{\partial \hat{\phi}}{\partial \hat{\Xi}}' \right]^{-1} \]

where $\hat{\Xi} = [\hat{\theta}, \hat{\sigma}^2, \hat{\psi}]'$

\[ 39 \]
7.7 Counterfactual simulation

The welfare analysis exercise in the previous subsection suggests that, when women have a low bargaining power, equal division of assets is beneficial to them in a divorce, because it grants them more assets. Furthermore, if unilateral divorce is in place, women can exercise the threat of divorce with the additional assets they would obtain with community property to increase their bargaining power and consume a larger share of household resources during the marriage.

The results of the structural estimation suggest that, when unilateral divorce was introduced in the community property states in the 1970s, the initial bargaining power of women was very low. This leads us to conclude that community property or equitable distribution and unilateral divorce were making women better off when unilateral divorce was introduced.

However, not all women may have such a low bargaining weight in marriage. In particular, it may be argued that new cohorts of women married after these reforms may have higher bargaining power in their households.

In this section, I analyze the welfare effects of removing the default of community property in favor of a different sharing rule \( \alpha \) (share of household assets attributed to the husband in a divorce) that is not necessarily equal to \( \frac{1}{2} \) and title-based regime where spouses have individual property rights over household resources. I also remove the assumption that the offer wage of men and women at age 23 differs, but still let women develop a wage gap with respect to men during their career, as a consequence, for instance, of a motherhood wage penalty (Miller 2009).

I also quantify the welfare gains of eliminating uncertainty on the distribution of assets, thus of transitioning from equitable distribution to community property.

7.8 Optimal division rule \( \alpha \)

In this section, I analyze the welfare implications of choosing alternative values of the division rule \( \alpha \) instead of \( \frac{1}{2} \). In particular, I here ask what is the value of \( \alpha \) that a household would choose at marriage given the initial distribution of power \( \theta_0 \). I solve the problem of the couple in unilateral divorce (since it’s the most common regime in the United States) for a discrete vector of values of \( \alpha \) and values of \( \theta_0 \). I then find the division rule \( \alpha^* \) that the household would choose given the initial distribution of power \( \theta \) at different stages of the marriage. We could see \( \alpha^* \) at time 1 as the sharing rule that spouses would choose if they could write a prenuptial agreement without transaction costs, nor stigma, and with certainty about its enforcement. Such division rule solves

\[
\text{Argmax}_{\alpha} \quad \theta_0 U_{1H}^{HM}(\alpha, \theta_0) + (1 - \theta_0) U_{1W}^{WM}(\alpha, \theta_0)
\]

Note in table (10) the relationship between the bargaining power of the husband and optimal property division rule for a coarse grid of values of \( \alpha \). Note that in a household where men and women are equally weighted in household decision \( (\theta_0) \), intra-household
Table 10: Optimal choice of $\alpha$ in unilateral divorce

<table>
<thead>
<tr>
<th>$\theta_0$</th>
<th>0.2</th>
<th>0.3</th>
<th>0.4</th>
<th>0.5</th>
<th>0.6</th>
<th>0.7</th>
<th>0.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\alpha^*$</td>
<td>0.2</td>
<td>0.3</td>
<td>0.4</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.7</td>
</tr>
</tbody>
</table>

bargaining would lead to choosing a division rule that is different from $\frac{1}{2}$ and would award more to women than to men because of the wage gap that affects women.

7.9 Reintroducing a title-based regime

7.10 Uncertainty in the division of assets

An implication of the presence of uncertainty in the division of assets is that it negatively affects the welfare of risk-averse households. I compare the community property regime estimated in this section to an equitable distribution regime where spouses are uncertain about the division of assets, but expect that it would be divided equally. Eliminating uncertainty on the division of assets (community property) increases the welfare of a married couple to an amount equivalent to an increase in consumption of 5 percent.

8 Concluding remarks

In this paper, I show that spouses’ individual property rights have a large effect on couples’ investment behavior during marriage: divorce laws that govern the division of property and the decision to divorce influence both the accumulation of assets of couples and the labor supply of married women. I use data form the NLSW and the PSID to estimate household responses to divorce law reforms in the 1970s and 80s. When unilateral divorce and equitable distribution were introduced in the United States, savings increased by 16 percent, while no effect was observed in those states where the title of ownership was the only asset distribution criterion in a divorce settlement. Moreover, the labor force participation of women increases by 6 percentage points, while the labor supply of men experienced an increase of about 4 percent.

To interpret these findings and undertake welfare analysis, I build a stochastic dynamic model that incorporates features of the U.S. divorce system to quantify the welfare implications of divorce law reforms and understand the channels that drive the behavior that I illustrated above. In the model, spouses are uncertain about their future preferences for remaining married and their income and make collective choices about consumption, wealth accumulation, human capital investment and divorce. I use the responses estimated in the data to estimate the household bargaining parameter at the time of divorce law reforms, using indirect inference. The structural estimation suggests that women had a low weight in the
household decision function when these reforms took place, but that their weight increased due to the introduction of unilateral divorce and the possibility of re-bargaining on divorce threat-points, when assets are divided equally in divorce. The increase in the accumulation of assets is consistent with the presence of an income effect for men, who increase saving accumulation to self-insure against the loss of half of their assets to their less-empowered wives in a divorce. The fall in female employment is driven by the increased assets awarded to them in divorce and the additional bargaining power in marriage that this generates.

My counterfactual exercise suggests that equal division of assets only benefits women who have little bargaining power in their couple, such as women in my sample, who married before the divorce law reforms of the 1970s and 80s. As women gain equality in their marriage, well-defined property rights in marriage would be beneficial both for them, i.e. it would allow women to better insure against a loss of consumption in divorce, and would also improve the welfare of the household.

Appendix

A. Divorce laws and divorce probability

A large body of work has examined whether the introduction of unilateral divorce has affected the divorce rate in the United States (recently, Friedberg 1998 and Wolfers 2007). The exercise proposed here is substantially different, as I only focus on those households that were already married at the time of the reform.

I estimate the linear probability model:

\[
divorce_{it} = a \cdot Unilateral_{st} + \gamma'Z_{it} + \delta_t + f_i + \epsilon_{it}
\]  

(16)

where \(Z_{it}\) is a vector of control variables, \(f_i\) represent individual fixed effects and \(\delta_t\) year fixed effects. Control variable are spouses’ age dummies, years since marriage and number of children.

I estimate equation (16) on both the PSID and the NLSW sample. The regression results suggest that a positive and statistically significant effect is identified among these households.
(Table 11), while there is no difference in the effect of this reform between different property division rules. The point estimates are surprisingly large (suggesting an increase in the risk of divorce between 30 percent and 100 percent), but very imprecise. The small number of divorces observed in these datasets makes the identification of a precise effect difficult. However, these findings seem to support the hypothesis that unilateral divorce may have raised the likelihood of divorce for the sample that I analyze in this paper.
<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PSID divorce</td>
<td>PSID divorce</td>
<td>PSID divorce</td>
<td>NLSW divorce</td>
<td>NLSW divorce</td>
<td>NLSW divorce</td>
<td>NLSW divorce</td>
<td>NLSW divorce</td>
</tr>
<tr>
<td>Unilateral</td>
<td>0.004*</td>
<td>0.004*</td>
<td>0.002</td>
<td>0.006</td>
<td>0.010**</td>
<td>0.010**</td>
<td>0.011***</td>
<td>0.010***</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.0024)</td>
<td>(0.001)</td>
<td>(0.005)</td>
<td>(0.004)</td>
<td>(0.004)</td>
<td>(0.003)</td>
<td>(0.003)</td>
</tr>
<tr>
<td>Children</td>
<td>-0.005***</td>
<td></td>
<td>-0.006***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td></td>
<td>(0.001)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uni*Eq.Distr.</td>
<td></td>
<td>-0.004</td>
<td></td>
<td>-0.008</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.004)</td>
<td></td>
<td>(0.004)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uni*Com.Prop.</td>
<td>0.005</td>
<td></td>
<td>0.006</td>
<td></td>
<td>0.006</td>
<td></td>
<td>0.006</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.006)</td>
<td></td>
<td>(0.005)</td>
<td></td>
<td>(0.005)</td>
<td></td>
<td>(0.005)</td>
<td></td>
</tr>
<tr>
<td>Eq.Distr.</td>
<td>0.001</td>
<td></td>
<td>-0.001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td></td>
<td>(0.004)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Com.Prop.</td>
<td>-0.010**</td>
<td></td>
<td></td>
<td>0.949**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
<td></td>
<td></td>
<td>(0.043)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polyn years since marriage</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Wifes’ age dummies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Year f.e.</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>State f.e.</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Household f.e.</td>
<td>4,691</td>
<td>4,691</td>
<td>3,933</td>
<td>4,691</td>
<td>5,131</td>
<td>5,131</td>
<td>4,089</td>
<td>5,131</td>
</tr>
</tbody>
</table>

Standard errors in parentheses, clustered at the state level

*** p<0.01, ** p<0.05, * p<0.1

Note: Data from the NLS of Young and Mature Women and the PSID. Sample of couples married before legal reforms. Dependent variable is divorce status conditional on being married in the previous period.
B. Additional evidence on household behavior

B.1 Analysis of men’s hours of work

While my model does not consider the labor supply of men, a shift in household bargaining parameters in favor of women may lead to additional male labor supply (Chiappori et al. 2002). I test this prediction by examining the labor supply of men in the PSID. I regress

$$hours\ worked_{it} = a_1(Uni \cdot Title_{st}) + a_2(Uni \cdot Com.Prop_{st}) + a_3(Uni \cdot Eq.Distr_{st}) + a_4Com.Prop_{st} + a_5Eq.Distr_{st} + \gamma'Z_{it} + \delta_t + f_i + \epsilon_{it}.$$  

The results suggest that in community property states, when unilateral divorce is introduced, the labor supply of men increase by 90 hours per year (Table 12, column 1). The average number of hours worked by a man in a year in this sample is 2,027 and the increase with unilateral divorce and community property is thus of approximately 4 percent.
Table 12: **Hours worked by men: household fixed effects regressions**

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) work hours</th>
<th>(2) work hours</th>
<th>(3) work hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uni*Title</td>
<td>-41.12</td>
<td>-14.31</td>
<td>-41.22</td>
</tr>
<tr>
<td></td>
<td>(41.99)</td>
<td>(55.71)</td>
<td>(66.73)</td>
</tr>
<tr>
<td>Uni*Com.Prop.</td>
<td>90.50**</td>
<td>73.83</td>
<td>89.27**</td>
</tr>
<tr>
<td></td>
<td>(37.57)</td>
<td>(59.83)</td>
<td>(35.38)</td>
</tr>
<tr>
<td>Uni*Eq.Distr.</td>
<td>-1.60</td>
<td>26.39</td>
<td>-2.43</td>
</tr>
<tr>
<td></td>
<td>(28.85)</td>
<td>(32.99)</td>
<td>(30.17)</td>
</tr>
<tr>
<td>Com.Prop.</td>
<td>-66.40</td>
<td>-49.93</td>
<td>-65.31</td>
</tr>
<tr>
<td></td>
<td>(59.24)</td>
<td>(257.6)</td>
<td>(58.01)</td>
</tr>
<tr>
<td>Eq.Distr.</td>
<td>-5.761</td>
<td>0.417</td>
<td>-5.546</td>
</tr>
<tr>
<td></td>
<td>(20.61)</td>
<td>(23.71)</td>
<td>(22.78)</td>
</tr>
<tr>
<td>Children</td>
<td>9.342*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(4.839)</td>
</tr>
</tbody>
</table>

|            | Yes          | Yes           | Yes            |
| Wife’s age dummies |            |               |                |
| Year fixed effects | Yes        | Yes           | Yes            |
| State f.e.      | No          | Yes           | No             |
| Observations    | 9,965       | 9,965         | 9,965          |
| Number of id    | 2,934       | 2,934         | 2,934          |

Standard errors in parentheses, clustered at the state level

*** p<0.01, ** p<0.05, * p<0.1

**Note:** Data from the PSID. Sample of couples married before legal reforms. Dependent variable is annual hours worked by married, divorced or separated men. Excluded category for divorce laws: title-based mutual consent regime.

**C. Inverse Probability Weighting**

Inverse Probability Weighting allows to re-weight observations to account for non-random attrition. In this case, the exclusion restriction for this method requires that attrition does not depend on the regressors of equation (4), that will be called $x$, conditional on a vector of variables $u$, which may contain lagged values of $x$:

$$P(\text{attrition}_{it} = 0|\text{assets}_{it}, x_{it}, u_{it}) = P(\text{attrition}_{it} = 0|u_{it})$$

where $x_{it}$ represents the right hand side variable in the asset regression and the vector $u_{it}$ can contain lagged values of assets and of $x$. That is, variables from time $t$ do not provide additional information about the likelihood of attrition once conditioned on variables at time $t$. 

46
Under this assumption, equation (11) can be consistently estimated in the presence of non-random attrition.

First, I construct the weights:

\[ w_{it}(u) = \frac{1}{P(\text{attrition}_{it} = 0 | u)} = \frac{1}{\prod_{\tau=2}^{t} P(\text{attrition}_{i\tau} = 0 | u, \text{attrition}_{i,\tau-1} = 0)} \]

where \( u_{it} \) are household characteristics at time \( t - 1 \) (assets, income, age) that influence the fact that the couple would be divorce at time \( t \).

I then estimate equation (11) by weighted least squares (WLS).\(^{32}\)

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VARIABLES</td>
<td>assets</td>
</tr>
<tr>
<td>IPW</td>
<td>no IPW</td>
</tr>
<tr>
<td>Robust standard errors in parentheses clustered at state level without correction for the 1st stage</td>
<td>*** p&lt;0.01, ** p&lt;0.05, * p&lt;0.1</td>
</tr>
</tbody>
</table>

Note: Data from the NLS of Young and Mature Women. Sample of couples married before legal reforms. Dependent variable is real total family net assets. Excluded category for divorce laws: title-based mutual consent regime.

Because of the computational burden required by estimating fixed-effect regressions with time-varying probability weights, this exercise does not include bootstrapped standard errors that account for first-stage estimation. Ignoring the first stage estimation in the computation of the standard errors leads to a conservative estimate of the variance-covariance matrix: adjusting for the first stage would lead to smaller standard errors (Wooldridge 2002). For completeness, I report the same clustered standard errors of the estimation without IPW.

\(^{32}\)WLS minimizes

\[
\min_{\alpha, \gamma, f} \sum_{i=1}^{N} \sum_{t=1}^{T} 1\{\text{attrition}_{it} = 0\} w_{it}(u) (\text{assets}_{it} - \alpha_1 \text{Unilateral}_{st} - \alpha_2 (\text{Unilateral} \cdot \text{Com.Prop}_{st}) - \alpha_3 (\text{Unilateral} \cdot \text{Eq.Distr}_{st}) - \alpha_4 \text{Com.Prop}_{st} - \alpha_5 \text{Eq.Distr}_{st} + \gamma' Z_{it} + \delta_t + f_t)^2
\]
D. Identification of spouses’ income process parameters

D.1 Men’s income process

Parameters \( \lambda_0^H \) and \( \lambda_1^H \) that represent men’s income gains from experience are estimated on the PSID income dataset under the assumption that all men participate and that there is no selection bias in this sample (Blundell et al 2008):

\[
\Delta \ln(y_t^H) = \lambda_0^H + \lambda_1^H \cdot t + \Delta u_t
\]

Define unexplained growth of log-earnings as:

\[
\Delta u_j^t = P_{j,t}^i + \zeta_j^i - P_{j,t-1}^i + \epsilon_j^i - \epsilon_{j,t-1} = \zeta_j^i + \epsilon_j^i - \epsilon_{j,t-1}
\]

for \( j=H,W \).

The variance of the husband’s permanent income shocks is identified by the moment

\[
E[\Delta u_H^t (\Delta u_H^t + \Delta u_{t+1}^H)] = \sigma_{\zeta_H}^2.
\]

D.2 Women’s income process and of spouses’ income correlation

Identification of the income process parameters for women requires controlling for the selection of women into employment. In fact, while in the model all men participate in the labor market, we cannot observe earnings for those women who don’t work. Assume that a wife participates in the labor market \( (P_W^t = 1) \) if

\[
Z_t' \delta + M_t' \gamma + \eta_t > 0
\]

where \( M_t \) are exogenous variables excluded from the earnings equation (divorce laws) and \( Z_t \) are variables in the earning equations (in this model age and past employment).

Assume that the income shocks of husbands and wives are correlated. Then, income shocks and participation shocks in each period are distributed as a multivariate normal which is uncorrelated across periods of time:

\[
\begin{pmatrix}
\zeta_H^t \\
\zeta_W^t \\
\eta_t
\end{pmatrix}
is distributed MVN
\begin{pmatrix}
0, \\
\begin{pmatrix}
\sigma_{\zeta_H}^2 & \sigma_{\zeta_H \zeta_W} & \sigma_{\zeta_W}^2 \\
\sigma_{\zeta_H \eta} & \sigma_{\zeta_W \eta} & \sigma_{\eta}^2
\end{pmatrix}
\end{pmatrix}
\]

Define \( \alpha_t = -Z_t' \delta - M_t' \gamma \). Identifying the wife’s income process parameters requires a two-stage procedure. In the first stage, we estimate the probability of female participation in the labor market as

\[
P(P_W^t = 1) = P(\eta_t > -Z_t' \delta - M_t' \gamma) = P(\eta_t > \alpha_t)
\]

using a probit. Then, since:
\[
E[\Delta \log y_t^W | P_t^W = 1, P_{t-1}^W = 1] = \lambda_0^W + \lambda_1^W \cdot t + E(\Delta u_t^W | P_t^W = 1, P_{t-1}^W = 1) = \lambda_0^W + \lambda_1^W \cdot t + \sigma_{\Delta u}\left[ \frac{\phi(\alpha_t)}{1 - \Phi(\alpha_t)} + \frac{\phi(\alpha_{t-1})}{1 - \Phi(\alpha_{t-1})} \right]
\]

I thus estimate the inverse Mills ratio \( \frac{\phi(\alpha_t)}{1 - \Phi(\alpha_t)} \) from the entire sample of wives and then insert it in the earnings equation to obtain the correct residuals that account for the unobservables that influence both participation and earnings.

The parameters of the income process are the solutions to the system:

\[
E[\Delta u_t^W | P_t^W = 1, P_{t-1}^W = 1] = E[\zeta_t^W | \eta_t > \alpha_t] = \sigma_{\zeta^W} \frac{\phi(\alpha_t)}{1 - \Phi(\alpha_t)}
\]

\[
E[\Delta u_t^W \Delta u_{t-1}^W + \Delta u_{t+1}^W | P_t^W = 1, P_{t-1}^W = 1, P_{t+1}^W = 1, P_{t-2}^W = 1] = E[\zeta_t^W | \eta_t > \alpha_t] = \sigma_{\zeta^W} \frac{\phi(\alpha_t)}{1 - \Phi(\alpha_t)}
\]

\[
E[\Delta u_t^H | P_t^W = 1, P_{t-1}^W = 1] = E[\zeta_t^H | \eta_t > \alpha_t] = \sigma_{\zeta^H} \frac{\phi(\alpha_t)}{1 - \Phi(\alpha_t)}
\]

\[
E[\Delta u_t^W \Delta u_{t-1}^H | P_t^W = 1, P_{t-1}^W = 1] = \sigma_{\zeta^H} \frac{\phi(\alpha_t)}{1 - \Phi(\alpha_t)}
\]

Finally, the parameter \( \delta \) is identified by:

\[
E[\log y_t^W - \log y_{t-2}^W | P_t^W = 1, P_{t-2}^W = 1] = \lambda_0^W + \lambda_1^W \cdot (t - 1) + [\lambda_0^W + \lambda_1^W \cdot t] \cdot I(P_{t-1}^W = 1) + \delta \cdot I(P_{t-1}^W = 0) + E(\Delta^2 u_t^W | P_t^W = 1, P_{t-2}^W = 1)
\]

where

\[
E(\Delta^2 u_t^W | P_t^W = 1, P_{t-2}^W = 1) = E(\Delta^2 u_t^W | \eta_t > \alpha_t, \eta_{t-2} > \alpha_{t-2}) = \sigma_{\Delta^2 u} \left[ \frac{\phi(\alpha_t)}{1 - \Phi(\alpha_t)} + \frac{\phi(\alpha_{t-2})}{1 - \Phi(\alpha_{t-2})} \right]
\]

Identification of the depreciation parameter thus comes from the gap in earnings between a woman who worked without interruptions for three years and a woman who did not participate in the intermediate year. This equation accounts for the selection into work in periods \( t \) and \( t - 2 \) but not for the endogeneity of the decision to not participate in period \( t - 1 \). As robustness check, I verify that the estimates obtained for \( \lambda_0^W \) and \( \lambda_1^W \) from equation (23) are similar to those from (18). The endogeneity bias does not seem to significantly influence the estimates.
**E. Appendix Tables**

**Table 14: Divorce law reforms in the fifty states**

<table>
<thead>
<tr>
<th>State</th>
<th>Unilateral divorce (Gruber 2004)</th>
<th>Equitable distribution (FLQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>1971</td>
<td>1984</td>
</tr>
<tr>
<td>Alaska</td>
<td>pre-1967</td>
<td>pre-1967</td>
</tr>
<tr>
<td>Arizona</td>
<td>1973</td>
<td>community property</td>
</tr>
<tr>
<td>Arkansas</td>
<td>no</td>
<td>1977</td>
</tr>
<tr>
<td>California</td>
<td>1970</td>
<td>community property</td>
</tr>
<tr>
<td>Colorado</td>
<td>1972</td>
<td>1972</td>
</tr>
<tr>
<td>Connecticut</td>
<td>1973</td>
<td>1973</td>
</tr>
<tr>
<td>Delaware</td>
<td>1968</td>
<td>pre-1967</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>no</td>
<td>1977</td>
</tr>
<tr>
<td>Florida</td>
<td>1971</td>
<td>1980</td>
</tr>
<tr>
<td>Georgia</td>
<td>1973</td>
<td>1984</td>
</tr>
<tr>
<td>Hawaii</td>
<td>1972</td>
<td>pre-1967</td>
</tr>
<tr>
<td>Idaho</td>
<td>1971</td>
<td>community property</td>
</tr>
<tr>
<td>Illinois</td>
<td>no</td>
<td>1977</td>
</tr>
<tr>
<td>Indiana</td>
<td>1973</td>
<td>pre-1967</td>
</tr>
<tr>
<td>Iowa</td>
<td>1970</td>
<td>pre-1967</td>
</tr>
<tr>
<td>Kansas</td>
<td>1969</td>
<td>pre-1967</td>
</tr>
<tr>
<td>Kentucky</td>
<td>1972</td>
<td>1976</td>
</tr>
<tr>
<td>Louisiana</td>
<td>no</td>
<td>community property</td>
</tr>
<tr>
<td>Maine</td>
<td>1973</td>
<td>1972</td>
</tr>
<tr>
<td>Maryland</td>
<td>no</td>
<td>1978</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>1975</td>
<td>1974</td>
</tr>
<tr>
<td>Michigan</td>
<td>1972</td>
<td>pre-1967</td>
</tr>
<tr>
<td>State</td>
<td>Unilateral divorce (Gruber 2004)</td>
<td>Equitable distribution (FLQ)</td>
</tr>
<tr>
<td>------------------</td>
<td>----------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Minnesota</td>
<td>1974</td>
<td>pre-1967</td>
</tr>
<tr>
<td>Mississippi</td>
<td>no</td>
<td>1989</td>
</tr>
<tr>
<td>Missouri</td>
<td>no</td>
<td>1977</td>
</tr>
<tr>
<td>Montana</td>
<td>1973</td>
<td>1976</td>
</tr>
<tr>
<td>Nebraska</td>
<td>1972</td>
<td>1972</td>
</tr>
<tr>
<td>Nevada</td>
<td>1967</td>
<td>community property</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>1971</td>
<td>1977</td>
</tr>
<tr>
<td>New Jersey</td>
<td>no</td>
<td>1974</td>
</tr>
<tr>
<td>New Mexico</td>
<td>pre-1967</td>
<td>community property</td>
</tr>
<tr>
<td>New York</td>
<td>no</td>
<td>1980</td>
</tr>
<tr>
<td>North Carolina</td>
<td>no</td>
<td>1981</td>
</tr>
<tr>
<td>North Dakota</td>
<td>1971</td>
<td>pre-1967</td>
</tr>
<tr>
<td>Ohio</td>
<td>1992</td>
<td>1981</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>pre-1967</td>
<td>1975</td>
</tr>
<tr>
<td>Oregon</td>
<td>1971</td>
<td>1971</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>no</td>
<td>1980</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>1975</td>
<td>1981</td>
</tr>
<tr>
<td>South Carolina</td>
<td>no</td>
<td>1985</td>
</tr>
<tr>
<td>South Dakota</td>
<td>1985</td>
<td>pre-1967</td>
</tr>
<tr>
<td>Tennessee</td>
<td>no</td>
<td>pre-1967</td>
</tr>
<tr>
<td>Texas</td>
<td>1970</td>
<td>community property</td>
</tr>
<tr>
<td>Utah</td>
<td>1987</td>
<td>pre-1967</td>
</tr>
<tr>
<td>Vermont</td>
<td>no</td>
<td>pre-1967</td>
</tr>
<tr>
<td>Virginia</td>
<td>no</td>
<td>1982</td>
</tr>
<tr>
<td>Washington</td>
<td>1973</td>
<td>community property</td>
</tr>
<tr>
<td>West Virginia</td>
<td>1984</td>
<td>1985</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>1978</td>
<td>community property (1986)</td>
</tr>
<tr>
<td>Wyoming</td>
<td>1977</td>
<td>pre-1967</td>
</tr>
</tbody>
</table>

Table 15: Quasi-experimental variation in NLSW and PSID data

<table>
<thead>
<tr>
<th>Before</th>
<th>After</th>
<th>Mutual Consent</th>
<th>Unilateral</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Title</td>
<td>Title</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mutual</td>
<td></td>
<td>NLSW: 1,149 hh, 2,658 obs.</td>
<td>NLSW: 398 hh, 814 obs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PSID: 1,701 hh, 15,383 obs.</td>
<td>PSID: 290 hh, 1,710 obs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NLSW: 233 hh, 651 obs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PSID: 178 hh 2,162 obs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NLSW: 12 hh, 28 obs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PSID: 87 hh 628 obs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NLSW: 653 hh, 2,213 obs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PSID: 573 hh 7,004 obs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PSID: 573 hh 7,004 obs.</td>
<td>PSID: 249 hh 2,146 obs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NLSW: 0 hh, 0 obs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PSID: 5 hh 19 obs.</td>
</tr>
</tbody>
</table>

### Table 16: Employment of married and divorced women: Fixed-effect logit regressions

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1) employment</th>
<th>(2) employment</th>
<th>(3) employment</th>
<th>(4) employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unilateral ($\beta_1$)</td>
<td>-0.077</td>
<td>-0.139</td>
<td>-0.096</td>
<td>-0.207</td>
</tr>
<tr>
<td></td>
<td>(0.117)</td>
<td>(0.144)</td>
<td>(0.145)</td>
<td>(0.159)</td>
</tr>
<tr>
<td>Uni*Com.Prop. ($\beta_2$)</td>
<td>-0.193</td>
<td>-0.266</td>
<td>-0.321*</td>
<td>-0.104</td>
</tr>
<tr>
<td></td>
<td>(0.158)</td>
<td>(0.180)</td>
<td>(0.181)</td>
<td>(0.202)</td>
</tr>
<tr>
<td>Uni*Eq.Distr. ($\beta_3$)</td>
<td>-0.010</td>
<td>-0.119</td>
<td>-0.086</td>
<td>-0.208*</td>
</tr>
<tr>
<td></td>
<td>(0.108)</td>
<td>(0.111)</td>
<td>(0.111)</td>
<td>(0.121)</td>
</tr>
<tr>
<td>Eq.Distr. ($\beta_4$)</td>
<td>0.008</td>
<td>0.005</td>
<td>0.012</td>
<td>0.013</td>
</tr>
<tr>
<td></td>
<td>(0.051)</td>
<td>(0.052)</td>
<td>(0.052)</td>
<td>(0.056)</td>
</tr>
<tr>
<td>Com.Prop.($\beta_5$)</td>
<td>0.152</td>
<td>1.090</td>
<td>1.230</td>
<td>0.870</td>
</tr>
<tr>
<td></td>
<td>(0.150)</td>
<td>(1.236)</td>
<td>(1.199)</td>
<td>(1.222)</td>
</tr>
<tr>
<td>Wife’s age dummies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Year fixed effects</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Polyn. time since marriage</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Children</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>State f.e.</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Observations</td>
<td>43,912</td>
<td>43,912</td>
<td>43,912</td>
<td>36,866</td>
</tr>
<tr>
<td>Household f.e.</td>
<td>2,596</td>
<td>2,596</td>
<td>2,596</td>
<td>2,083</td>
</tr>
<tr>
<td>P-value Unilateral+Uni*Com.Pr.=0</td>
<td>0.02**</td>
<td>0.00***</td>
<td>0.00***</td>
<td>0.004**</td>
</tr>
<tr>
<td>P-value Unilateral+Uni*Eq.Distr.=0</td>
<td>0.04**</td>
<td>0.04**</td>
<td>0.14</td>
<td>0.00***</td>
</tr>
</tbody>
</table>

Standard errors in parentheses, clustered at the state level

*** p<0.01, ** p<0.05, * p<0.1

Note: Data from the PSID. Sample of couples married before legal reforms and divorced or separated women. Dependent variable is female employment status. Excluded category for divorce laws: title-based mutual consent regime.
References


