

# CREDIBLE COMMITMENTS AND MARRIAGE: WHEN THE HOMEMAKER GETS HER SHARE AT DIVORCE

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**Abstract:** A variety of states in the United States have adopted the “homemaking provision” in their divorce laws since the 1980s. The provision requires judges to recognize homemakers’ contribution to their marriages in dividing marital properties at divorce. I model the marital decisions of couples as a sequential game, in which the potential wife’s decision in whether to marry and specialize in home production depends on whether she is legally protected by the homemaking provision, as the law would reinforce her post-divorce property rights and therefore increase her bargaining power within the marriage. I use the variation in the timing of the passage of the homemaking provision to identify its effect on marriage. I find that the provision substantially increases marriages using both state- and individual-level data.

**Keywords:** Credible commitments, divorce law, divorce, homemakers, marriage, property rights, unilateral divorce

**JEL classification:** D13, J12, J2

## 1. INTRODUCTION

... the enactment [of the homemaking provision] seeks to right what many have felt to be a grave wrong. It gives recognition to the essential supportive role played by the wife in the home, acknowledging that as a homemaker, wife and mother she should clearly be entitled to a share of family assets accumulated during the marriage. *O’Neill v. O’Neill*, 536 A.2d 978, 984 (Conn. App. Ct. 1988)

The past four decades have witnessed a sharp decline in marriage. Traditionally, one primary source of gain to marriage comes from household specialization of

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labor. This gain is much reduced when one of the spouses (typically the wife) is reluctant to specialize in performing domestic duties such as childrearing and homemaking. Part of this reluctance arises from the liberalization of divorce laws since the 1970s widely known as the “no-fault divorce revolution,” which has substantially increased access to divorce [Allen (1992), Brinig and Buckley (1998), Friedberg (1998), Wolfers (2006)]. Prior to the no-fault divorce reform, a divorce was very difficult to obtain and was usually only granted by marital faults such as cruelty and adultery. The no-fault divorce reform allowed the dissolution of marriages to be based on no-fault grounds such as “irreconcilable differences,” “incompatibility,” and “voluntary separation” [Jones (1987)]. As has been argued by many scholars on divorce law, the no-fault divorce reform has largely reduced the commitment value of marriage and encouraged opportunistic behavior of spouses [see, for instance, Cohen (1987, 2002), Dnes (1998), Parkman (1992, 2000, 2002), Scott (2002)]. Particularly under the traditional title-based property division regime with unilateral divorce, any spouse could walk out of the marriage without properly compensating the party that has made non-financial contribution to the marriage including home production.

Before any law was introduced to recognize homemakers’ services as a material contribution to the acquisition of assets during marriage, the post-divorce financial condition of homemakers had been substantially worsened under no-fault divorce and they faced financial difficulty in sustaining their families after divorce [Weitzman (1985)]. Fearing this “homemaker’s hazard,”<sup>1</sup> women, therefore, seek financial independence from men by increasing their market-specific human capital and labor market attachment [see Johnson and Skinner (1986), Parkman (1992, 2000), Stevenson (2007, 2008)]. Some partners might simply opt out of marriage as a result [Rasul (2003)].

In Wong (2014), I find evidence that recognizing homemakers’ contribution in dividing marital assets upon divorce in law (I refer to this law as the “homemaking provision”) enhanced sexual division of labor within households. One next important question is, given this specialization gain to marriage induced by this homemaking provision, would marriage become more attractive to couples? In this paper, I find that the homemaking provision substantially increases marriage.

Why is marriage important from a social standpoint? There is an extensive literature that associates marriage with human wellbeing. For instance, married men and women are healthier than the unmarried. They are less likely to take drugs and they drink less [Waite (1995)]. They also tend to be wealthier than the non-married even after controlling for characteristics that affect savings and income [Lupton and Smith (2003)]. Although positive selection into marriage is likely to be at play, at least some part of the better family outcomes are causal effects of marriage because of the gains from household specialization, the economies of scale in production and consumption, altruism, and a stronger sense of obligation due to the higher level of commitment in marriage compared to singlehood or cohabitation. Buckles and Price (2013), for instance, find that marriage premiums exist for infant health even after accounting for selection into marriage.

The no-fault divorce reform has not only reduced marriage but also changed its nature. Possibly as a result of the reduction in parental investment in children and the time they spend as caretakers at home under the unilateral divorce regime, children brought up in states with unilateral divorce were found to have worse social outcomes in terms of education and income [Gruber (2004)]. Cáceres-Delpiano and Giolito (2012) also find that young adult cohorts who were born at the time of unilateral divorce reform are more likely to commit violent crimes.

Ultimately, the decline in the marriage institution associated with no-fault divorce is inextricably tied to the lowering of the commitment value of marriage. In families that emphasize gender roles, women who specialize in home production are particularly vulnerable to substantial financial loss upon divorce under the common law regime, as the division of assets at divorce is according to legal titles (i.e., who legally owns the property). In practice without any legal protection, it is extremely difficult for the husband to make credible commitments regarding the ex-post divorce allocation of financial resources to induce more beneficial home production undertaken by the wife during the marriage.

In addition, gender division of labor within the family also carries implications for the intrahousehold distribution of resources in favor of the party that specializes in the market sector, when intertemporal commitments in marriage are limited [Basu (2006), Lundberg (2008)]. The homemakers sacrifice the opportunity to develop their own career, which has put them in a disadvantageous position in marital bargaining, as the value of their alternatives outside marriage is lowered by their loss in market work experience. In contrast, specialization enhances the market earnings of the breadwinner. This further reduces homemakers' relative bargaining position in marriage.

In this paper, I develop a sequential game for the marital decision of a couple and the potential wife's labor supply decision to study the effect of the homemaking provision. I argue that the homemaking provision in family law can serve as a credible commitment to the ex-post divorce allocation of resources to the homemaker and, therefore, would also enhance homemakers' bargaining power within the household. This would increase the incentives for the wife to specialize in home production and enhance marital gain, and thus affect marital decision.

Although the relationship between household division of labor and laws that protect marriage-specific investment made by spouses is important in understanding the evolving marriage institution, to the best of my knowledge, this work and the work by Wong (2014) are the first to investigate empirically the actual effect of a law that directly protects the post-divorce property rights of homemakers on marriage and household specialization. I make use of the time variation in the adoption of the homemaking provision across states to identify the causal effects of the homemaking law on marriage. I collect data on the timing of the introduction of the homemaking provision across states based on the state statutes and established case laws.

The empirical analysis of this paper is based on two data sets: I compile a state-level panel data to estimate the effect of the homemaking provision on

state-level marriage rates. I also estimate how the law affects the individuals' probability of marriage using the Fertility and Marital History Supplement of the Current Population Survey of June 1995. Estimates using the two independent data sets and different econometric models both suggest that the homemaking law significantly increases marriage. The law is found to increase state-level marriage rates by at least 10.6% of the sample mean in the long term and individual marriage risks by 9%.

The rest of this paper is organized as follows. [Section 2](#) introduces the background of the homemaking provision. [Section 3](#) reviews the literature on commitment and marriage and develops the theoretical framework. [Section 4](#) discusses the data and outlines the empirical specifications. [Section 5](#) presents and analyzes the results. [Section 6](#) concludes.

## 2. BACKGROUND OF THE HOMEMAKING PROVISION

### 2.1. Liberalization of Divorce Laws and the Homemaking Provision

The liberalization of divorce laws has made getting divorces much easier across many states in the United States since the 1970s. Prior to the divorce reform movement, a divorce is granted in most states only by proof of marital faults. In particular, unilateral divorce permits any spouse to terminate the marriage without the consent of the other spouse. Many married women in that period sacrificed their careers to specialize in performing domestic duties upon marriage, and this had impaired their market earning capacities.

Under a fault-based divorce system, the homemakers were in a much better bargaining position in marriage. Divorces required proof of fault and the party at fault was even denied the right to bring suit in some states. The homemakers, who were usually the vulnerable party, would have to be adequately compensated, should the breadwinner wish to end the marriage. One well-documented unintended consequence of the liberalization of divorce is the substantial economic hardship faced by divorced women and their children [Weitzman (1985)]. As suggested by Sharp (1987, p. 196), “no-fault divorce threatened great distributional inequities because it eliminated what had been the only true source of bargaining power for a financially dependent spouse—the ability to preclude the other spouse from obtaining a divorce.”

Under no-fault divorce, the post-divorce economic rights of the husband and wife are governed by state statutes or established case laws on division of marital properties and alimony upon the dissolution of a marriage. The primary income-earners, usually the men, were in a much better financial position, as under traditional common law regimes, properties were not subject to division at divorce in situations where the marital assets were titled in the name of one spouse only (typically the spouse that financially contributed to the properties). In light of this development, lawmakers initiated reforms in other aspects of the family law to ensure equity in ex-post divorce outcomes of spouses. The National Conference

of Commissioners on Uniform State Law (NCCUSL) formulated the Uniform Marriage and Divorce Act (UMDA) in 1970. The intention of the act was to develop principles for equitable property division at divorce and codify the family law across states. One of the recommendations made was to recognize the contribution of home production to a marriage in alimony award and property division [see Baer (1996)].<sup>2</sup>

Not all states had enacted the UMDA and some had only introduced it in part, yet this act has produced profound impact on the development of family laws across states and formed the basis of the equitable distribution principle in property division upon divorce in common law states. Many common law states subsequently incorporate this principle based on the new conception of marriage as an economic partnership and legally recognize homemakers' contribution in marriage as a material contribution to the income-earner's acquisition of assets. In the earlier time, this recognition in many states was based on judicial decisions in interpreting the equitable distribution principle, which resulted in precedents.<sup>3</sup> Some states enacted equitable distribution law that provides an explicit admonition of recognizing homemakers' contribution as one specific property distribution factor in dividing the marital assets at divorce [Fineman (1989)].<sup>4</sup> The equitable principles in some of these states were later on enhanced by enactment or amendment of their statutory provisions based on previous judicial decisions.<sup>5</sup> A few states still base their rulings on established case law instead of recognizing homemakers' contribution to the marital property in codified statutes. For instance, Mississippi's rulings have always been based on *Reeves v. Reeves*, 410 So. 2d 1300 (Miss. 1982). In this paper, I call these statutes or established precedents that give recognition to home production in property division at divorce the "homemaking provision."

## 2.2. The Homemaking Provision and Division of Marital Assets

To illustrate how the establishment of the homemaking provision affects in division of marital assets at divorce, consider the legal reform in New York. Prior to the enactment of the equitable distribution law in 1980, the division of financial properties was strictly to the titleholders. A homemaker's economic interest was largely unprotected as her nonmonetary contribution to the marriage would have no effect on property distribution [Feerick (1986)]. The equitable distribution statute was in force in New York in July 1980. Under this law, all financial assets accumulated during marriage are to be divided equitably by the court. In particular, contributions and services as a homemaker have to be taken into account in equitable distribution of marital properties (N.Y. Domestic Relations Law § 236 : NY Code – Section 236).

The law gave the court more latitude than under the traditional common law in dividing marital properties, which can include real estates, savings, businesses, pensions, and enhanced earning capacity attributable to the attainment of a professional license or educational degree during marriage. Despite that no mechanical

formula is embedded in the homemaking provision that determines the exact share of marital properties to which the homemakers are entitled, nonetheless the homemakers are clearly much better protected financially under this law, as the ex-post divorce property rights of the homemakers to the marital property accumulated during marriage become much better delineated than without it. Without the homemaking provision, homemakers would not be entitled to an equitable share of assets held by the breadwinners, usually the husbands. This would conceivably create a strong financial disincentive for women to specialize in home production. Conceivably some might simply not get married as a result of the dwindling gain to forming a marital union.

Noticeably for the homemaking law to produce effects on marital behavior, women do not have to be informed about the exact legal terms that recognize homemakers' contribution in dividing properties at divorce. Conceivably they could learn of the effects of the law from the divorce experience of others. For example, before the equitable distribution law was introduced in New York, people could find out from their friends, who were divorced homemakers, that they were entitled to no assets held by the ex-husbands at divorce and would be turned away from becoming a homemaker because of the risk of divorce. Upon the law was introduced, others could similarly learn that homemakers' contribution to marriage was legally recognized by law in division of properties at divorce, and might be less reluctant to the idea of becoming a homemaker as a result. And as more divorces occur, more individuals will be informed directly or indirectly of the homemaking law and this knowledge would be incorporated into their decision making. Also as a matter of fact, divorcing couples were aware of the legal change and its impact. *New York Times* in October 1981 documented that more women in New York sought divorces since the inception of the equitable distribution law as their financial interests had been better protected by law [Greenberg (1981)].

### 3. THE THEORETICAL FRAMEWORK FOR MARRIAGE AND COMMITMENT

#### 3.1. The Existing Literature

As suggested in Parkman (2002), marriage is no longer a permanent commitment in the era of unilateral divorce. For couples that marry, they basically enter into a contractual relationship in which they have no say on the terms of the contract,<sup>6</sup>

they have very little control over the arrangement into which they are entering, owing to legal restrictions imposed on their transaction by the state. They have essentially no control over the basis upon which their agreement will be terminated, and if it is terminated, the legal system gives them only limited control over the repercussions of the terminated. [Parkman (2002, p. 57)]

The level of commitment in marriage depends on the grounds for divorce and family law that governs ex-post divorce financial arrangement. In the past, the grounds for divorce were either fault-based or on the basis of mutual consent.

Marriage carries a long-term commitment since if one party wishes to exit a marriage, he/she must compensate the affected spouse so that he/she is no worse off than retaining the marriage. This encourages marriage-specific investment and time allocation that promotes the fortune of the family [Cohen (2002)].

Cohen (1987) put forward that under no-fault divorce the quasi-rent of women as primary caretakers usually are more susceptible to opportunistic appropriation by the primary breadwinners because of the shift in the relative value of the human capital between the homemaker and the breadwinner over time: investment in marriage-specific capital is usually made early in marriage and its value depreciates rapidly as children grow older whereas men's earning tends to increase over time [see also Scott (2002) and Dnes and Rowthorn (2002) for an overview of marriage as a contract]. The breadwinner in the later years of marriage would thus have more incentives to breach the marital contract. Even for intact families, when the dependent spouse is not financially protected, opportunistic behavior could arise in a similar fashion as the "hold-up" problem in firms when firm-specific investments are involved in production [Williamson (1979)]. This is because home production skills are marriage-specific and worth less in the market [see England and Folbre (1999)].

Following the development of unilateral divorce, there is a growing literature that studies theoretically how spouses' inability to commit at different levels affects resource allocation within households. For instance, Aura (2002) studied the dynamic investment and consumption choices of married couples under the assumption that spouses can neither commit across time nor renegotiate. Basu (2006) developed a dynamic framework that shows how inefficiency would arise the wife's labor supply enhances her future bargaining power and spouses cannot binding commitment regarding future consumption. Iyigun (2005) hypothesized that spousal cooperation would be difficult to sustain as specialization in home production would reduce the threat point of the spouse and market wages. In his model, specialization is more likely when the wage or spousal endowment inequality is high (i.e., increase in the gain from specialization of labor). Interestingly, spousal specialization would not occur when the sex ratio in the marriage market is one unless there is a credible commitment mechanism. Matouschek and Rasul (2008) formalized three hypotheses on why people marry. The hypothesis that is most consistent with the empirical evidence is that marriage serves as a commitment device. These theoretical works suggest that the inability to make binding commitments in marriage could give rise to inefficiency in a wide range of important household decisions including spousal time allocation, consumption, and the decision to marry and divorce and childrearing.

Theoretical frameworks that are most closely related to this paper are Lundberg and Pollak (2003) and Lundberg (2008). The former studied spousal decisions that would affect future bargaining power. The locational decision of two-earner couples is modeled as a sequential game. They show that theoretically inefficient outcomes are plausible when the couples cannot make binding commitments regarding future allocations. Extending the logic of this argument



to the time allocation of spouses, Lundberg (2008) provided a simple model which suggests that when spouses cannot enter into a binding agreement concerning future behavior, strategic behavior in time allocation decisions of married couples can create inefficiency in the form of underprovision of the household public good. This occurs because spousal investment in the household public good would lower his/her bargaining power in the future periods. The problem stems from spouses' inability to credibly commit to the transfer in the ex-post investment period that would induce the optimal level of public good provision.

Conceivably the homemaking provision I study in this paper can serve as a credible commitment to homemakers regarding ex-post their divorce transfer, which would affect the bargaining power of the homemaker within the household. It can be viewed as a credible financial commitment to marriage as the ex-post divorce property division is enforced by the state. Even though this provision does not perfectly specify the ex-post divorce financial resource allocation of spouses, no doubt, it better protects the non-monetary contribution made by homemakers, and thus is expected to produce similar effects to a credible post-divorce transfer proposed in Lundberg (2008).

### 3.2. Marital Decision, Specialization and the Homemaking Provision as a Credible Commitment

Based on the setting of Lundberg and Pollak (2003), I study theoretically how the homemaking provision would affect the decision to marry by considering the marital and labor supply decision of a couple in a sequential game, in which the man is the first mover.<sup>7</sup>

Suppose that two mates are choosing whether to get married. The man chooses first. If he chooses not to marry, the game would end and the couple would stay single and both would remain in the workforce. If the man chooses to marry, the woman would have to decide whether to marry him. If she also decides to marry, she will have to choose to be a homemaker or to stay in the workforce, whereas the husband would always stay in the workforce. If she chooses not to marry, both would be in the workforce and remain single. Therefore, if there is household specialization within the family, it would be the wife that stays home. This setup is based on the distinct gender roles in traditional marriage. But conceivably the gender roles could be reversed in some households such that the man specializes in home production and the wife in market work.<sup>8</sup> This game can be readily solved by backward induction. Figure 1 presents the structure of the game.

Let the utility of mate  $i$  be  $U_{ht}^{ij}$ , where  $i \in \{f, m\}$  in which  $f$  stands for female and  $m$  for male;  $j \in \{s, m\}$  in which  $s$  stands for single and  $m$  for married;  $h \in \{0, 1\}$ , and  $h$  takes 0 for the woman working in the workforce and 1 if she is a homemaker;  $l \in \{0, 1\}$ , and  $l$  takes 0 under a legal regime without homemaking provision and 1 with the homemaking provision. And in singlehood, the utilities



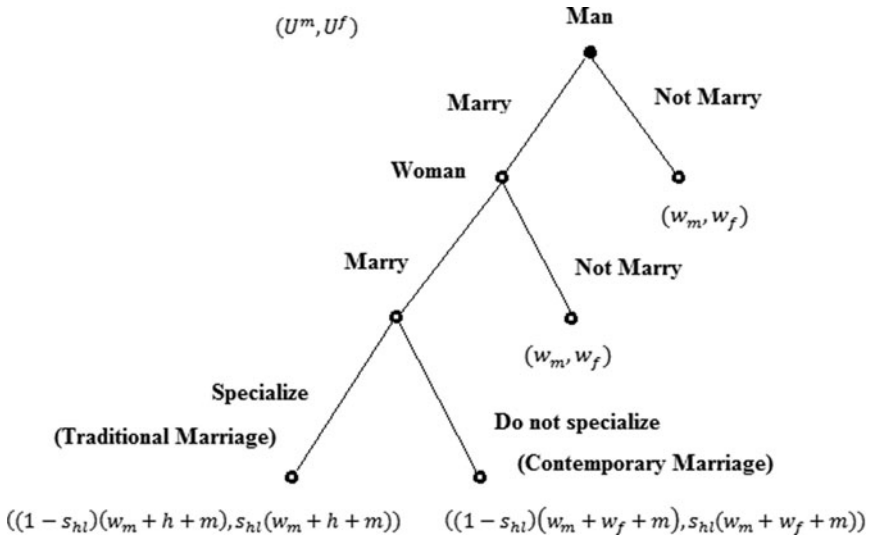


FIGURE 1. The structure of the game of marriage and household specialization.

of the female and male are respectively given by

$$U_{0l}^{fs} = w_f, \tag{3.1}$$

$$U_{0l}^{ms} = w_m. \tag{3.2}$$

In case when the couple gets married, the utilities of the wife and husband when both stay in the workforce are

$$U_{0l}^{fm} = s_0(w_m + w_f + m), \tag{3.3}$$

$$U_{0l}^{mm} = (1 - s_0)(w_m + w_f + m), \tag{3.4}$$

where  $m$  is the gain from marriage, which can come from the emotional support and companionship from marriage, as well as the gain from sharing household public goods. It can however take a negative value for couples that demand more personal space and would have more conflicts when they live together;  $s_{hl} = s(w_m, w_f, \text{homemakinglaw})$  is the wife’s share of the total utility of the household, which depends on the husband’s market income and her market income and whether there is a homemaking provision.

The marital share for the wife is assumed to be independent of the homemaking provision if she works in the labor force. This assumption is reasonable as the homemaking provision would not be applicable in any case if she does not specialize in home production. The subscript for the homemaking law on the share  $s$  is suppressed for convenience when the wife does not specialize in home production such that  $s_0 = s_{00} = s_{01}$ .<sup>9</sup> Assume that  $w_m > w_f$  (based on the existing

gender wage inequality in the labor market), if there is household specialization in marriage, it would always be the wife that stays at home and so the husband would always work in the workforce.

And if they are married and the wife specializes in home production, their utilities are given by

$$U_{ll}^{fm} = s_{ll}(w_m + h + m), \quad (3.5)$$

$$U_{ll}^{mm} = (1 - s_{ll})(w_m + h + m), \quad (3.6)$$

where  $h$  is the utility the household gets from home production supplied by the wife, assumed to be strictly positive. The wife's market income is zero if she does not work. This would lower her future market income and so being a homemaker would put her in a disadvantageous bargaining position, which is reflected by a lower share in the household utility. But with the homemaking law, her share of the household utility as a homemaker would be higher as she is legally entitled to a larger share of the marital assets if the marriage fails, which enhances her bargaining position within marriage. If she stays in the workforce, her share of the total household utility would not be affected by the homemaking law. Therefore, we have

$$s_{11} \geq s_0 > s_{10},$$

or

$$s_0 \geq s_{11} > s_{10}. \quad (3.7)$$

The equation above suggests that depending on the market wage of the wife, the share of total utility the wife could claim when she works in the labor force can be higher or lower than when she stays at home and performs household *under the homemaking provision*. But being a homemaker *without the homemaking provision* would always yield the smallest share relative to staying in the workforce, or being a homemaker under the homemaking provision.

Under this setting, whether it is Pareto efficient for the couple to get married depends on the sign of  $m$ . And, whether it is efficient for the wife to specialize in home production in marriage would actually depend on  $w_f$  and  $h$ . If  $w_f > h$ , it is actually efficient to have no gender division of labor within the family. In reality, this could occur when female wages are high and domestic services can be bought at relatively low costs in the market or performed quickly with the introduction of affordable time-saving home production technologies such as washing machines, microwave, and dishwashers, so that little time has to be spent on home production [see Greenwood et al. (2005), Coen-Pirani et al. (2010)].

And without the homemaking provision, the man is in a better bargaining position because by assumption  $w_m > w_f$ . By backward induction, we first focus on the labor supply then marital decision of the woman. Given that the female

mate chooses to marry, she would be a homemaker if

$$s_{1l}(w_m + h + m) \geq s_0(w_m + w_f + m). \tag{3.8}$$

She would remain in the workforce when married if

$$s_0(w_m + w_f + m) \geq s_{1l}(w_m + h + m). \tag{3.9}$$

And she would choose to remain single if her utility in singlehood is higher than the share of the total utility she would have received if she is married regardless of whether she is a homemaker or remains in the workforce in marriage, i.e.,  $w_f > \max\{s(w_m + w_f + m), s_{1l}(w_m + h + m)\}$ . This means she will choose to marry as long as

$$s_{1l}(w_m + h + m) \geq w_f, \tag{3.10}$$

or

$$s_0(w_m + w_f + m) \geq w_f. \tag{3.11}$$

And, man would marry if the woman is married and specializes in home production when

$$(1 - s_{1l})(w_m + h + m) \geq w_m, \tag{3.12}$$

$$s_{1l} \leq \frac{h + m}{(w_m + h + m)}.$$

When conditions (3.8), (3.10) and (3.12) are all satisfied, marriage with traditional gender roles (marry, marry, specialize) would occur as a subgame perfect Nash equilibrium, and it exists only if  $w_f < h + m$ , which means the market wage of the wife has to be less than the utility housework brought to the household and the emotional gain from marriage.

Man would marry if the woman is married and remains in the workforce when

$$(1 - s_0)(w_m + w_f + m) \geq w_m, \tag{3.13}$$

$$s_0 \leq \frac{w_f + m}{(w_m + w_f + m)}.$$

Therefore, when conditions (3.9), (3.11) and (3.13) are all satisfied, contemporary marriage without gender roles (marry, marry, do not specialize) would emerge as a subgame perfect Nash equilibrium and its existence requires  $m > 0$ .

In the absence of a commitment mechanism regarding the sharing rule, some Pareto efficient marriage might not occur; this happens when  $w_f > s_0(w_m + w_f + m)$  and  $w_f > s_{1l}(w_m + h + m)$  with  $m > 0$  or when either of them are satisfied but (3.13) is violated.<sup>10</sup> Also given that couples are married, Pareto efficient traditional marriages do not necessarily occur, as women might stay in the workforce strategically by recognizing that being a homemaker would

lower their share to the household utility. This occurs when conditions (3.9) and (3.13) hold and when  $w_m + w_f + m < w_m + h + m$ . Note that women would always work in the workforce when being a homemaker is Pareto inefficient *in the absence of the homemaking provision*, because by assumption  $s_0 > s_{10}$ , and when  $w_m + w_f + m > w_m + h + m$ , and therefore condition (3.9) must hold, which means the woman would never strategically choose to be a homemaker when specializing in home production is not Pareto efficient. This is because specializing in domestic work without the protection of the homemaking provision would lower her bargaining position within the family, which implies that she would get a lower share of a smaller pie and optimally she must stay in the workforce.

Now consider the effects of the introduction of the homemaking provision on marriage and the labor supply of wives. Under the provision, the homemaking wife would have a larger share of the marital properties in the event of divorce, this would increase her bargaining power within marriage and therefore  $s_{11} > s_{10}$ . Note that the law produces no effect on the share of the household utility of wives that remain in the workforce, and their share of the utility is always  $s_0$ . For women, as their shares of total family utility as homemakers increase with the homemaking provision, given  $w_m$ ,  $w_f$ ,  $h$ , and  $m$ , condition (3.8) is now easier to satisfy under the homemaking provision, which means that more women who were initially married but remain in workforce would optimally choose to be homemakers, and most importantly for the purpose of this study, some women who would otherwise not get married would now be married and be a homemaker under the homemaking provision, as condition (3.10) is also easier to satisfy.

One important effect of the homemaking provision is that it would reduce contemporary marriage because condition (3.9) becomes more difficult to satisfy, so women would be less likely to choose contemporary marriage, and condition (3.13) is the same with or without the homemaking provision. This means that conditional on women choosing to marry and stay in the workforce, there is no change in men's incentives in accepting contemporary marriage. This is consistent with Wong (2014), which found that under the unilateral divorce law and the homemaking provision, married women increase the time they spend on performing housework.

In sum, under the homemaking provision, *for women*, the propensity to marry would increase and these new marriages formed (conditional on men accepting the marriage) must be traditional ones. Also, some marriages would change from contemporary to traditional with distinct gender roles.

Despite the homemaking provision would increase the incentives for women to get married and be homemaker as stated above, theoretically it could turn some men away from marriage. This would occur when  $(1 - s_{11})(w_m + h + m) < w_m$ , i.e., when  $s_{11} > \frac{h+m}{(w_m+h+m)}$ . This is more likely to happen when men's market wage is high relative to the value of the domestic service provided by his potential homemaking wife and the gain from marriage. Therefore, theoretically it is not clear whether the homemaking provision would increase marriage. If most men in

the marriage market are still better off marrying under the homemaking provision, marriage rates would increase, otherwise they would fall.

Another interesting theoretical question is, under this setting, is it possible that the homemaking provision could result in inefficient traditional marriage as an equilibrium outcome? That is, women who would be married and remain in the workforce under Pareto efficiency, but strategically choose to be married and stay at home, with men accepting such a deal in equilibrium under the homemaking provision. This would occur when the utility brought to the family by home production is less than that by market work of the wife:

$$w_f > h. \tag{3.14}$$

And as illustrated, traditional marriage occurs as a subgame perfect Nash equilibrium when (3.8), (3.10), and (3.12) are satisfied, and as such,  $s_{11}$  would have to fall between the following range:

$$s_0 \frac{(w_m + w_f + m)}{(w_m + h + m)} \leq s_{11} \leq \frac{(h + m)}{(w_m + h + m)}. \tag{3.15}$$

Also,

$$\frac{w_f}{(w_m + h + m)} \leq s_{11}. \tag{3.16}$$

Note that under condition (3.14),  $\frac{(w_m + w_f + m)}{(w_m + h + m)} > 1$ . This means that  $s_0 \frac{(w_m + w_f + m)}{(w_m + h + m)}$  is less likely to be smaller than  $s_{11}$  when  $w_f$  is large relative to  $h$ . And men would agree to an inefficient traditional marriage only if  $h$  is high enough relative to  $w_m$  such that  $s_{11} \leq \frac{(h+m)}{(w_m+h+m)}$ . For example, if men earn a lot so that  $w_m$  is very high relative to  $h$ ,  $s_{11}$  is less likely to be smaller than  $\frac{(h+m)}{(w_m+h+m)}$ . Verbally, this means men are not willing to share so much with their potential homemaking wives and they would be better off staying single. Taken together it means that it is possible to have inefficient traditional marriage: when  $w_f$  is not so high relative to  $h$ . But men’s option of staying single imposes some limit on the occurrence of inefficient traditional marriage, because even when women would like to marry and specialize in home production under the law, men would decline such marriage as long as  $h$  is not high enough relative to  $w_m$ .

Based on the theoretical derivation above, marriage would increase as long as most men are not so rich that they would turn away from marriage as a result of the homemaking provision. The empirical section of this paper tests whether the homemaking provision enhances marriage.

## 4. DATA AND EMPIRICAL SPECIFICATIONS

### 4.1. The Data

*The legal regime variables.* I obtained the information on the timing of implementation of the homemaking provision from a variety of sources. In some states,

it is found in their statutes. A number of articles in the law literature such as Batts (1988) provide information on the timing of implementation of the homemaking law for a number of states. I also traced out established case laws and statutes related to the homemaking law from internet search engines for legal cases and codes such as [www.findlaw.com](http://www.findlaw.com) and the case law finder provided by LexisNexis. The year of introduction of the homemaking provision in states is based on the year of enactment of statutory codes that explicitly list homemakers' contribution as a factor in equitable distribution in marital properties at divorce or the year of establishment of the precedent, whichever came first. The year of enactment of the homemaking provision is provided in [Table B.1](#) of Appendix B.

It is important to control for states under the unilateral divorce and equitable distribution regimes, as the development of recognizing homemakers' non-monetary contribution to the acquisition of assets accumulated during marriage is closely tied to these legal reforms. Data on the enactment of unilateral divorce come from Iyavarakul et al. (2011). I have included jurisdictions that reduced their separation time requirements as grounds for divorce to two years or less as unilateral divorce regimes since couples can still obtain divorce after the separation period at relative ease. The year of enactment of equitable property distribution comes from Voena (2015). I have also controlled for community property states. The property division laws of these states drew on the civil law tradition in continental Europe rather than on the English common-law tradition [Jacob (1988)]. Under community property regimes, assets accumulated during marriage are in general divided equally at divorce under the community property regimes, regardless of each spouse's monetary or non-monetary contribution to the marriage. This conceivably would alter the incentives to marry in a way different from the homemaking provision, which provide direct financial rewards for home production in property division at divorce. The year of introduction of the unilateral divorce and equitable distribution is reported in [Table B.2](#) of Appendix B.

*Marriage-related policy variables.* I also control for other legal and policy reforms that might affect the incentives to marry during the sample period. This includes the introduction of joint custody, the implementation of mandatory income withholding for child support, the replacement of the Aid to Families with Dependent Children (AFDC) to the Temporary Assistance for Needy Families (TANF), and the monthly benefits unmarried mothers receive from TANF. The information on the year of introduction of joint custody is from Halla (2013).<sup>11</sup> Data on the year of implementation of mandatory income withholding for child support up to 1992 come from Case (1998). For states that introduced the law after 1992, I traced out the year of enactment from internet search engines for state statutes and codes.<sup>12</sup> The data on the year of implementation of TANF come from Schoeni and Blank (2000). Data on the maximum monthly benefit for AFDC/TANF for a family of three prior to 1996 come from various issues of the Congressional Green Book produced by the Committee on Ways and Means of

the United States House of Representatives; the rest are collected from the Welfare Rules Database provided by the Urban Institute.

**The state-level data.** For the state panel, the data on the annual number of marriages in each state from 1976 to 2000 are collected from the Vital Statistics of the United States. The statistics on state population comes from the Reading Survey of Epidemiology and End Results (SEER) Program of the National Cancer Institute (NCI). The data were compiled using the U.S. Census Bureau unbridged annual population estimates and contain information on the population in the United States at the level of the state or county by specific age groups, sex, and race. The state-level marriage rate is defined as the number of marriages per 1,000 people aged 15–54 and is computed using the Vital Statistics and population data. I focus on the 15–54 population because these individuals are the most at risk population for marriage. The data on population are also used to calculate the state-level proportion of female and male population aged 15–54 years and the proportion of the black population.

The state-level data on disposable personal income per capita is supplied by the Bureau of Economic Analysis. The statewide unemployment rate since 1976 and onwards and consumer price index used to deflate income are provided by the Bureau of Labor Statistics.

The state-level data on the composition of congress by political party affiliation used in the robustness check come from the Statistical Abstract of the United States.

By combing the above data, I construct a state-level panel data set that contains measures of actual occurrences of marriage and the state population as well as various statewide demographic controls over a 25-year time span that is used to identify the causal impact of the law on marital behavior. Similar to Halla (2013), I have excluded Nevada from my state-fixed-effect regression analysis because the marriage market in this state is very different in comparison with other states.<sup>13</sup>

Tables A.1 and A.2 in Appendix A presents the summary statistics of the state-level and individual-level data.

**The individual-level data.** The individual-level data for the Cox proportional hazard models come from the Fertility and Marital History Supplement of Current Population Survey (CPS) of June 1995. This supplement contains retrospective information on the marital histories of all the female respondents of age 15–65. Such information is unavailable in the usual CPS data. This allows us to identify their age and year of first marriage, which is crucial for the hazard model. One limitation in mapping the legal regime variables to individuals is that only the current state of residence is reported in the CPS Supplement data. Therefore, one could only observe individuals' state of residence in 1995, which means that the assignment of legal regimes will contain errors for women that moved to other states prior to 1995. However, if their moves were uncorrelated with the



introduction of the laws, the measurement error will tend to bias the coefficients toward zero. Respondents' education is measured as highest grade completed as of the 1995 supplement. This serves as a proxy for their abilities that are positively correlated with their market productivity. Other time-invariant individual-level covariates include dummies that indicate whether the individual is black, the state of residence of the respondent in 1995 and dummies for birth cohorts by five-year group from 1950 to 1974. The estimates are based on the marital histories of 27,374 women born in 1950–1975 from when they were 13 until they reach age 40. I treat individuals who were not married by 1995 as fixed-right censored. As this censoring mechanism is unrelated to survival time, it would not induce bias in the estimates.

#### 4.2. The State-Level Fixed-Effect Model

The following state-level fixed-effect model is used to estimate the impact of the homemaking provision on state-level marriage rates:

$$\begin{aligned}
 M_{s,t} = & \sum_{j=1(5)}^{21+} \beta_j \text{HomemakingProvision}_{for(j)to(j+4)years}_{s,t} \\
 & + \sum_{k=1(5)}^{16+} \theta_k \text{uni}_{for(k)to(k+4)years}_{s,t} \\
 & + \kappa \text{compro}_{s,t} + \rho \text{eqdist}_{s,t} + \mathbf{d}' \mathbf{x}_{s,t} + \alpha_t + \gamma_s + \epsilon_{s,t}, \quad (4.1)
 \end{aligned}$$

where  $M_{s,t}$  is the marriage rate in state  $s$  in year  $t$ , which is defined as the number of marriages per 1,000 people aged 15–54; *HomemakingProvision* takes 1 for states having introduced the homemaking provision for  $j$  to  $j + 4$  years and zero otherwise; *uni* stands for states having implemented unilateral divorce for  $k$  to  $k + 4$  years; *compro* is a dummy variable that takes one if the state has a community property regime at time  $t$  and zero otherwise; *eqdist* is a dummy variable that takes one if the state has an equitable distribution regime for marital properties at time  $t$  and zero otherwise; the base group is therefore the traditional common law regime;  $\mathbf{x}_{s,t}$  is a vector of state-level control variables including the logarithm of the state-level real disposable income per capita, state-level unemployment rate, proportion of female and male aged 15–54, respectively, in state population and proportion of black population;  $\alpha_t$  and  $\gamma_s$  represent year and state dummies, respectively, and  $\epsilon_{s,t}$  is a mean zero-error term. This specification is very flexible in the sense that it can take into account the dynamic effects of the homemaking provision on marriage rates. As argued by Wolfers (2006), it takes time for people to learn and adapt to the new divorce laws, the effect of the homemaking provision on marriage rates is also likely to vary over time until a steady state is reached.

The key identifying assumption is that the introduction of the homemaking provision is exogenous to the state-level marriage rate. That is, the law is

uncorrelated with the error term  $\epsilon_{s,t}$  in Regression (4.1). In Section 5.1.2, I will provide evidence supporting this exogeneity assumption by examining whether there are pre-existing trends in the state marriage rate prior to the homemaking provision was in place. In the robustness tests, I also allow the homemaking provision to be correlated with unobserved factors across states by including state-specific time trends in linear and quadratic forms.

Based on the theoretical framework, if the law does encourage gender specialization of labor within marriage, the incentives for women to marry would increase, because their post-divorce financial condition as homemakers is better protected by law, which would enhance the homemakers' bargaining position within marriage. This will increase marriages in the population as long as the majority of men are not turned away from marriages as a result of the law, and we will expect  $\beta_j$  in Regression (4.1) to yield a positive sign on marriage rates.

### 4.3. The Hazard Model

Using the individual-level data, I estimate the effect of the homemaking provision on marriage risk by discrete time Cox proportional hazard models. Let  $T_i$  be the age (time) at which the first marriage of individual  $i$  occurs, which is a random variable and  $t$  represents the age of individual  $i$  and takes value in  $\{13, \dots, 40\}$  corresponding to the woman's age, and therefore the discrete time period is in years. The baseline log hazard function  $\alpha(t) = \log_e h_0(t)$  is left unspecified. The hazard function is then given by

$$h(t) = P(T_i = t | T_i \geq t) = h_0(t) \exp(\beta_1 \text{HomemakingProvision} + \beta' X_{it} + \epsilon_i). \quad (4.2)$$

Therefore, the covariates enter the hazard model through the linear predictor and they shift the baseline hazard function multiplicatively by

$$\phi_i = \beta_1 \text{HomemakingLaw} + \beta' X_{it} + \epsilon_i, \quad (4.3)$$

where *HomemakingProvision* represents a dummy variable that takes 1 for individuals residing in states with the homemaking provision in time  $t$  and 0 otherwise;  $X_{it}$  is a vector of time-variant and invariant covariates that include 5-year cohort groups, dummy for race, state dummies, a dummy variable for high school or more education and controls for legal regimes including unilateral divorce, community property regime, equitable property regime, joint custody regime, states having implemented mandatory income withholding for child support for individual  $i$  in timer; and  $\epsilon_i$  is the error term uncorrelated with the covariates and follows a normal distribution.

One major advantage in performing a discrete-time duration model on the effect of the homemaking provision on marriage is that the estimates are based on individuals at risk of marriage. In order to understand the changes in the dynamics of marriage induced by the policy, one should focus on the flow of

marriage, rather than the existing stock of married population. Conceivably, the homemaking provision might affect both entry to and exit from marriage. As such, the effect of the homemaking provision on marriage could be biased by its effect on divorce using stock regressions, as the change in the married population that is married in any given time is the results of changes in the flows of marriages and divorces. In assessing the causes of the decline in welfare case load during the 1990s for instance, Klerman and Haider (2004) find that conventional static stock models are misspecified and suffer from omitted variables bias.

In the Cox model, the introduction of the homemaking provision in the state of residence of individual  $i$  in time  $t$  would shift her marriage hazard by  $\exp(\beta_1)$ . In the implementation, the policy is assumed to affect marital behavior by a time lag: the *HomemakingLaw* takes the value 1 after it has been introduced for 4 years. In practice, it is unlikely that individuals would learn the law and incorporate it in their decision making immediately, and such lagged effect of the policy is also indicated by the state-level estimates in Section 5.1.1.

## 5. THE RESULTS

### 5.1. The State-Fixed-Effect Model

**The main results.** Regression (4.1) estimates the dynamic effects of the law and the results are presented in Table 1. The baseline specification (1) includes only controls for the legal regimes and year and state-fixed effects. The homemaking provision is found to produce statistically significant effects after it has been introduced for more than 10 years: it increases state-level marriage rates by 1.903 per 1,000 people aged 15–54 (i.e., 11.88% of the sample mean). The point estimates of the dynamic effects of the law suggest that the provision increases the incentives to marry and the magnitude of the effect increases over time. The effect amounts to 18.22 of the sample mean when the homemaking provision has been introduced for over 21 years.

Specification (2) adds state-level demographic controls to Regression (4.1). These include the state-level proportion of the black population, the logarithm form of state-level disposable personal real income per capita, the state-level unemployment rate, and the proportion of female and male population aged 15–54 in the population separately. It is important to control for the black population, as marriage rates have been lower among the black population, and the decreasing trend in marriage is sharper among the black population [Bennett et al. (1989)]. Also, the propensity to marry during periods of economic prosperity increases and decreases during depression [Kirk (1960)]. In addition, a larger population at risk for marriage is likely to increase the state-level marriage rate and vice versa. The point estimates of the effect of the homemaking law do not vary by large after introducing these state demographics but the variances of the estimates somewhat reduce. Also, the effect of the law after it has been introduced for 6–10 years becomes statistically significant. This finding is similar to

**TABLE 1.** The dynamic effects of the homemaking provision on state-level marriage rates

Independent variables	Dependent variable: marriage rate (mean 16.02)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Provision 1–5 years	0.291 (0.394)	0.322 (0.361)	0.207 (0.359)	0.209 (0.351)	0.236 (0.151)	0.247* (0.147)	–0.050 (0.225)
Provision 6–10 years	1.080 (0.664)	1.046* (0.596)	0.954* (0.572)	0.934* (0.563)	0.920*** (0.234)	0.978*** (0.238)	0.435 (0.323)
Provision 11–15 years	1.903** (0.835)	1.925** (0.767)	1.826** (0.727)	1.793** (0.707)	1.590*** (0.438)	1.640*** (0.438)	0.963** (0.398)
Provision 16–20 years	2.363** (1.040)	2.360** (0.972)	2.240** (0.901)	2.159** (0.866)	1.861*** (0.733)	1.845*** (0.728)	1.158*** (0.420)
Provision 21+ years	2.920** (1.467)	2.826** (1.433)	2.575* (1.350)	2.490* (1.310)	1.837** (0.831)	1.736** (0.803)	1.695** (0.744)
Legal regimes	X	X	X	X	X	X	X
Demographics		X	X	X	X	X	X
State-fixed-effects	X	X	X	X	X	X	X
Year-fixed-effects	X	X	X	X	X	X	X
Other marriage-related policies			X	X	X	X	X
New York	X	X	X	X		X	X
Proportion of democrats in house				X			
State-specific linear time trends						X	
State-specific quadratic time trends							X
<i>N</i>	1,242	1,242	1,242	1,217	1,217	1,242	1,242
<i>R</i> -squared	0.857	0.867	0.871	0.872	0.953	0.951	0.962

*Notes:* \*\*\*Statistically significant at 1% level; \*\*Statistically significant at 5% level; \*Statistically significant at 10% level. Robust standard errors clustered at the state level are in parentheses. The marriage rate is defined to be the occurrence of marriage per 1,000 people aged 15–54 in any specified year. Legal regime controls include dummies that indicate states under the unilateral divorce for 1–5 years, 6–10 years, 11–15 years, and 16 years+, equitable property distribution, and community property. State demographics variables include the state-level proportion of black population, female and male population aged 15–54, respectively; the logarithm form of state-level disposable personal real income per capita and state-level unemployment rate. Other marriage-related policies include dummy variables that indicate states having introduced joint custody law; states that have transformed from AFDC to TANF; states with income withholding law for child support; and the logarithm form of the state-level maximum AFDC/TANF monthly benefits for three-person households. The regressions are weighted by the state population.

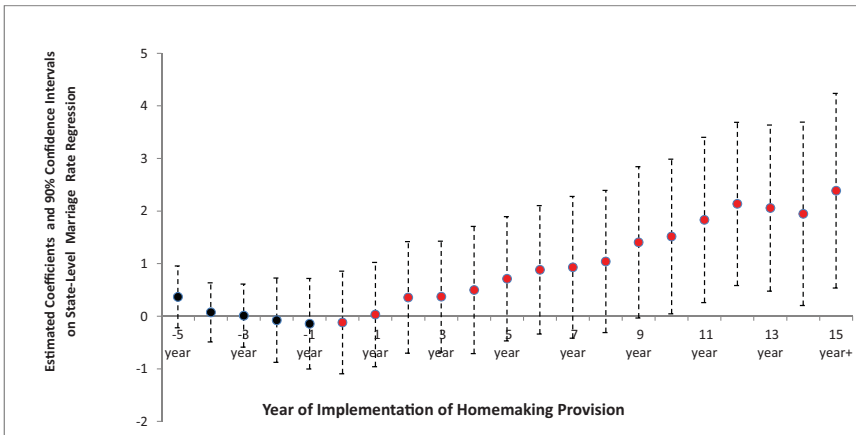
Stevenson and Wolfers (2006) in which the effect of unilateral divorce on female suicides begins to become statistically significant 7–8 years after the law has been introduced. The lag in response in the policy is likely to be a result of slow diffusion of information on legal changes and adaptation of behaviors [see

Wolfers (2006)]. Similarly Cáceres-Delpiano and Giolito (2012) also find that the effect of the unilateral law unfolds 8–20 years after the unilateral divorce reform.

Specification (3) further introduces controls for state legal and policy reforms that might affect marriage including the introduction of joint custody law, mandatory state income withholding for child support, the replacement of the AFDC program by the TANF program, and the logarithm form of the real maximum AFDC or TANF monthly benefits for three-person households. Some of the effects found of the homemaking provision earlier appear to be picked up by these policy variables, as the magnitudes of the effects of the homemaking provision somewhat reduce after their inclusion but qualitatively there are no changes in the results.

In specifications (4)–(7), I explore the sensitivity of the results by conducting several robustness checks for the effects of the homemaking law on state marriage rates. Specification (4) includes the proportion of Democrats in the House of Representatives for each state as it could serve as a proxy for the political preference by state, which could be translated into policies affecting state-level marriage rates and potentially could also affect when the homemaking law is to be introduced in a state. Results in the fourth column of [Table 1](#) show that none of the results are significantly affected by including the proportion of Democrats in the House in the regression. The point estimates are very similar to those in specification (3). Specification (5) examines whether the effect of the homemaking provision is driven by the marriage pattern in the most populous state that had introduced the homemaking provision: New York, of which the enactment had also drawn a substantial amount of media attention [see Greenberg (1981)]. The point estimate however remains very similar to specifications (3) and (4).

Lastly, I include state-specific linear and quadratic time trends in specifications (6) and (7), respectively. These two specifications would capture the marriage trends that vary within states over time that are actually not driven by the policy. The estimates in specification (6) show that after introducing the state-specific linear time trends, the effect of the homemaking provision gains in statistical significance, including the first to five years of the introduction of the law. Specification (7) shows that when state-specific quadratic time trends are introduced instead, the estimates gain in statistical significance relative to specification (4), which excludes state-specific time trends, but the magnitudes of the dynamic effects of the homemaking provision reduce overall. Both specifications (6) and (7) suggest that some of the effects of the homemaking law are captured by the state-specific time trends, and the reduction in magnitudes is more pronounced when state-specific quadratic time trends are included. However, the inclusion of state-specific time trends in either forms does not qualitatively change the results. Overall, we see a clear pattern that the homemaking provision increases state marriage rates and the magnitudes of the effect increase over time and the effect seems to gradually level off after the homemaking provision has been introduced



**FIGURE 2.** (Colour online) Check for pre-existing trends in marriage rates of the homemaking provision.

by more than 15 years. The sizes of the long-term effects are in the range of 1.70–1.74 per 1,000 people aged 15–54, which amounts to 10.6–10.8% of the sample mean (16.02 per 1,000 people aged 15–54).

*Pre-existing trends and exogeneity of the law.* In Wong (2014), I provided some exogeneity tests of the law and found no observable correlation between the timing of enactment of the homemaking provision and state-level household and economic characteristics in 1970 when the law was first introduced, including average weekly number of hours of housework by wives, home ownership rates, female labor force participation, and average share of wives' income in total family income.

Table 2 further examines whether there is an increasing trend in marriages that predated the introduction of the homemaking provision. I have included a group of leading dummy variables and dummies for states having implemented the homemaking provision for 1 year, 2 years, and so on to 16 years plus to Regression (4.1). Specification (1) is the baseline specification that has included the full set of control variables as in specification (3) of Table 1, but excluded any state-specific time trends. Figure 2 shows the estimated coefficients of the dummies of the years of the leads and lags of the introduction of the provision on state marriage rates at 90% confidence intervals using the baseline specification. Noticeably, the marriage rates gradually increase with the years of the introduction of the homemaking provision. This is also shown by the patterns of the estimates in Table 2. Specifications (3) and (5) introduce state-specific linear and quadratic time trends, respectively. It is reassuring to find that the estimated coefficients of the leading variables of the policy on the effect of state marriage rates do not differ from zero statistically across all specifications, except for the estimated coefficient

**TABLE 2.** Checks for pre-existing trends of the state-level marriage rates prior to the reform

Independent variables	Dependent variable: marriage rate (mean:16.02)											
	(1)		(2)		(3)		(4)		(5)		(6)	
5 years prior to reform	0.368	(0.350)			0.563*	(0.306)			0.003	(0.309)		
4 years prior to reform	0.073	(0.335)			0.607	(0.414)			-0.179	(0.496)		
3 years prior to reform	0.012	(0.358)			0.626	(0.441)			-0.251	(0.620)		
2 years prior to reform	-0.076	(0.477)			0.573	(0.585)			-0.282	(0.736)		
1 year prior to reform	-0.143	(0.514)			0.724	(0.651)			-0.255	(0.873)		
Provision 1 year	-0.118	(0.582)	-0.116	(0.325)	0.942	(0.750)	0.196	(0.198)	-0.135	(1.037)	0.184	(0.195)
Provision 2 years	0.030	(0.591)	0.029	(0.345)	1.135	(0.827)	0.326	(0.215)	0.005	(1.175)	0.362	(0.262)
Provision 3 years	0.358	(0.633)	0.355	(0.405)	1.589*	(0.895)	0.722**	(0.244)	0.404	(1.282)	0.800**	(0.349)
Provision 4 years	0.371	(0.629)	0.368	(0.398)	1.699*	(0.978)	0.770**	(0.271)	0.453	(1.425)	0.887**	(0.382)
Provision 5 years	0.498	(0.721)	0.498	(0.523)	2.048*	(0.997)	1.063**	(0.350)	0.836	(1.553)	1.309***	(0.474)
Provision 6 years	0.714	(0.705)	0.715	(0.507)	2.395**	(1.117)	1.356***	(0.388)	1.157	(1.652)	1.665***	(0.523)
Provision 7 years	0.883	(0.729)	0.886	(0.565)	2.648**	(1.164)	1.561**	(0.461)	1.421	(1.784)	1.959***	(0.613)
Provision 8 years	0.930	(0.804)	0.936	(0.660)	2.823**	(1.265)	1.683**	(0.566)	1.571	(1.853)	2.141***	(0.712)
Provision 9 years	1.041	(0.806)	1.045	(0.638)	2.976**	(1.320)	1.786***	(0.548)	1.748	(2.004)	2.345***	(0.779)
Provision 10 years	1.404	(0.856)	1.409**	(0.694)	3.402**	(1.431)	1.162***	(0.637)	2.158	(2.107)	2.784***	(0.835)
Provision 11 years	1.516*	(0.876)	1.519**	(0.728)	3.606*	(1.501)	2.319***	(0.730)	2.384	(2.222)	3.036***	(0.936)
Provision 12 years	1.831*	(0.837)	1.835**	(0.748)	4.026**	(1.678)	2.696***	(0.841)	2.807	(2.372)	3.484***	(0.973)
Provision 13 years	2.136**	(0.926)	2.142***	(0.768)	4.395**	(1.784)	3.023***	(0.927)	3.181	(2.365)	3.877***	(1.085)



**TABLE 2.** Continued

Dependent variable: marriage rate (mean:16.02)												
Independent variables	(1)	(2)	(3)	(4)	(5)	(6)						
Provision 14 years	2.057**	(0.942)	2.064**	(0.799)	4.330**	(1.951)	2.919***	(1.142)	3.156	(2.394)	3.866***	(1.009)
Provision 15 years	1.948*	(1.040)	1.955**	(0.913)	4.254**	(2.095)	2.808**	(1.333)	3.076	(2.443)	3.798***	(1.087)
Provision 16 years+	2.385**	(1.103)	2.396**	(0.974)	4.877**	(2.373)	3.343**	(1.517)	3.582	(2.502)	4.324***	(1.165)
State-fixed-effects	X		X		X		X		X		X	
Year-fixed-effects	X		X		X		X		X		X	
State-specific linear time trends					X		X					
State-specific quadratic time trends									X		X	
<i>N</i>	1,242		1,242		1,242		1,242		1,242		1,242	
<i>R</i> -squared	0.872		0.872		0.952		0.952		0.963		0.963	

*Notes:* \*\*\*Statistically significant at 1% level; \*\*Statistically significant at 5% level; \*statistically significant at 10% level. Robust standard errors clustered at the state level are in parentheses. The marriage rate is defined to be the occurrence of marriage per 1000 people aged 15–54 in any specified year. Legal regime controls include dummies that indicate states under the unilateral divorce for 1–5 years; 6–10 years; 11–15 years; 16+ years; equitable property distribution and community property. State demographics variables include the state-level proportion of black population, female and male population aged 15–54, respectively; the logarithm form of state-level disposable personal real income per capita; and state-level unemployment rate. Other marriage-related policies include dummy variables that indicate states having introduced joint custody law; states that have transformed from AFDC to TANF; states with income withholding law for child support; and the logarithm form of the state-level maximum AFDC/TANF monthly benefits for three-person households. The regressions are weighted by the state population.

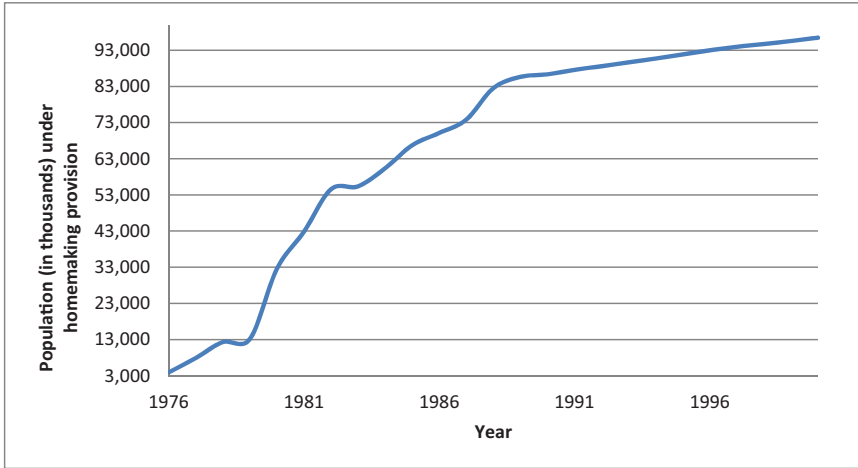


FIGURE 3. (Colour online) Population aged 15–54 in states with the homemaking provision 1976–2000.

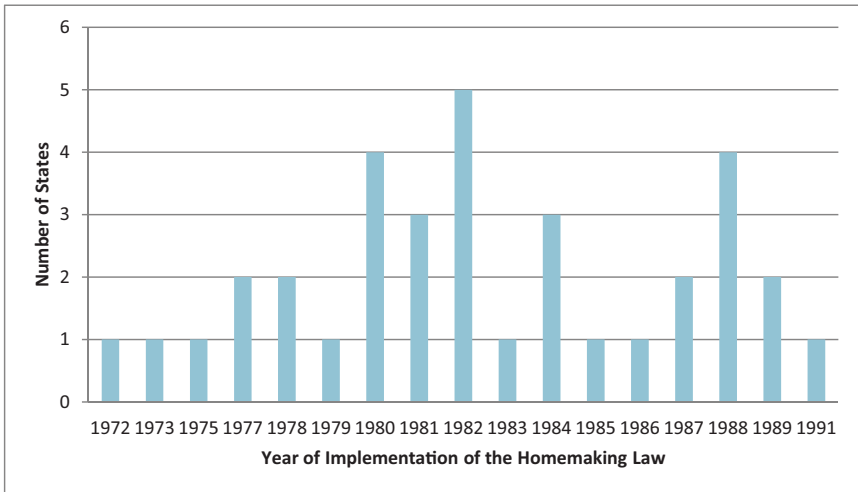


FIGURE 4. (Colour online) Year of enactment of the homemaking provision.

5 years prior to reform in specification (3). Note however this marginal statistical significance is not robust across specifications.

*Placebo tests.* Figure 3 displays the population aged 15–54 in the United States that reside in states with the homemaking provision from 1976 to 2000. The graph illustrates that the most drastic increase in population covered by the homemaking provision occurred during the 1980s. Figure 4 shows that the year of implementation of the homemaking provision across states peak at year 1982 and secondly at

**TABLE 3.** Placebo tests for the effects of the homemaking provision on marriage rates

Independent variables	Dependent variable: marriage rate (mean 16.02)					
	(1)	(2)	(3)	(4)	(5)	(6)
Placebo provision	-0.514	-0.076	-0.421*	-0.901***	-0.592	-0.746*
1–5 years	(0.504)	(0.278)	(0.231)	(0.324)	(0.399)	(0.404)
Placebo provision	-1.086*	-0.136	-0.914*	-0.884*	-0.261	-0.951
6–10 years	(0.600)	(0.493)	(0.521)	(0.482)	(0.581)	(0.627)
Placebo provision	-0.847	0.716	-0.479	-0.876	-0.027	-0.976
11–15 years	(0.713)	(0.702)	(0.746)	(0.696)	(0.949)	(0.989)
Placebo provision	-0.502	1.304	0.381	-1.313	0.998	-0.275
16–20 years	(0.931)	(0.859)	(1.119)	(1.667)	(1.390)	(1.391)
Legal regimes	X	X	X	X	X	X
Demographics	X	X	X	X	X	X
State-fixed-effects	X	X	X	X	X	X
Year-fixed-effects	X	X	X	X	X	X
Other marriage-related policies	X	X	X	X	X	X
State-specific linear time trends		X			X	
State-specific quartic time trends			X			X
N	1,242	1,242	1,242	1,242	1,242	1,242
R-squared	0.872	0.952	0.963	0.872	0.952	0.962

Notes: Specifications (1), (3), and (5) set the placebo years of implementation for states with even FIPS states code to 1988 and odd FIPS state codes to 1982, respectively. Specifications (2), (4), and (6) set the placebo years of implementation for states with even FIPS state codes to 1982 and odd FIPS state codes to 1988, respectively. \*\*\*Statistically significant at 1% level; \*\*Statistically significant at 5% level; \*Statistically significant at 10% level. Robust standard errors clustered at the state level are in parentheses. The marriage rate is defined to be the occurrence of marriage per 1,000 people aged 15–54 in any specified year. Legal regime controls include dummy variables that indicate states under the unilateral divorce for 1–5 years, 6–10 years, 11–15 years, and 16+years; equitable property distribution, and community property. State demographics variables include the state proportion of black population, female and male population aged 15–54, respectively; the logarithm of state-level disposable personal real income per capita; and state-level unemployment rate. Other marriage-related policies include dummy variables indicating states that have introduced joint-custody law; states that have replaced AFDC program to TANF program; states with income withholding law for child support; and the logarithm form of state-level maximum AFDC/TANF monthly benefits for three-person households. The regression are weighted by the state population.

years 1980 and 1988. In this subsection, I make use of this trend to further confirm that the positive effect of the homemaking provision on marriage found is driven by the homemaking provision itself. I perform a series of placebo tests based on the two disperse peaks of the policy introduction (years 1982 and 1988) shown in Figure 4, the results are presented in Table 3. In specifications (1), (3), and (5), I assign the year of introduction of the homemaking provision of *non-treatment* states with even Federal Information Processing Standard (FIPS) state codes 1988

and states with odd FIPS state codes to 1982. In specifications (2), (4), and (6), I assign the year of introduction of the homemaking provision of *non-treatment* states with even FIPS state codes to 1982 and states with odd FIPS state codes to 1982. The FIPS state codes provide a randomizing mechanism for assigning the non-treatment states to the fake treatment years.<sup>14</sup> Note that the group “Provision 21+ years” as appeared in the main analysis is dropped because the earliest implementation year has been set to 1982, and therefore no states would have received fake treatment for more than 19 years, as the sample years span 1976–2000. We should expect the estimated coefficients to be statistically indistinguishable from zero since these states did not actually have the homemaking provision in place. The estimates in the placebo tests show that the marriage patterns of these fake treatment states are clearly different from the real treatment states. If anything, these states are found to have negative marriage trends during the period when the homemaking provision law was widely introduced in other states. Note that none of the fake treatment effects found are robust to alternative specification and the sign of the point estimates of the long-term effect also change depending on the specification. The results from these placebo tests provide additional evidence that the direction of the causality indeed runs from the homemaking provision to marriage. Otherwise, we should observe quite similar estimated effects of the placebo provision on these fake treatment states.

## 5.2. The Hazard Model

*The main results.* In this subsection, I estimate the effect of the homemaking provision on women’s propensity to marry by performing hazard models using the individual-level data. The estimated hazard ratios of the homemaking provision are presented in Table 4; the hazard ratios are interpreted as how the covariates change the marriage risk relative to the baseline hazard. If the homemaking provision increases marriage risks, then the hazard ratio  $\exp(\beta_1) > 1$ . The homemaking provision is assumed to shift the individual marriage hazard proportionately.

Specification (1) is the baseline model, which includes the vector of legal regime covariates, cohort controls, and the state-fixed-effect. Specification (2) adds time-invariant covariates including a binary variable that takes 1 if the respondent is black and a dummy variable that indicates the respondent is a high school graduate or above. Specification (3) introduces a linear time trend. Specifications (4) and (5) add state-specific linear time trends and quadratic time trends, respectively. The estimates across all specifications are consistent with the state-level analysis and indicate that the homemaking provision increases marriage risks. Estimates of the marriage hazard  $\exp^{\beta_1}$  range from 1.09 and 1.21 depending on the specification, which correspond to an increase of marriage risks by 9–21% relative to the baseline group without the law. All estimates are statistically significant. Noticeably the estimates are very robust to alternative data sets—the percentage increase of the law on marriage risk is comparable to the estimated long-term effects of the

**TABLE 4.** The effect of the homemaking provision on marriage hazard for women born in 1950–1974

Covariates	(1)	(2)	(3)	(4)	(5)
Homemaking provision	1.090*** (0.030)	1.096*** (0.030)	1.113*** (0.030)	1.206*** (0.038)	1.194*** (0.047)
Cohort controls	X	X	X	X	X
Legal regime controls	X	X	X	X	X
Other marriage-related policies	X	X	X	X	X
High school graduates or above		X	X	X	X
Black		X	X	X	X
State-fixed-effects	X	X	X	X	X
Linear time trend			X		
State-specific linear time trends				X	
State-specific quadratic time trends					X
Number of subjects	27,374	27,374	27,374	27,374	27,374
Number of failure	20,734	20,734	20,734	20,734	20,734
Log likelihood	−196,801	−196,267	−196,241	−196,181	−196,136
LR $\chi^2$	1700.6	2292.2	2633.0	2633.9	2789.0

*Notes:* \*\*\*Statistically significant at 1% level; \*\*Statistically significant at 5% level; \*Statistically significant at 10% level. Robust standard errors are in parentheses. The time-invariant covariates include dummies for respondents born in 1950–1954, 1955–1959, 1960–1964, 1965–1969, and 1970–1974, a dummy for black, state of residence of respondents, and high school graduates or above. Time-variant covariates include a series of dummy variables indicating the state of residence of the respondent is under unilateral divorce; equitable property distribution and community property regimes; and states with income withholding for child support and joint custody law.

homemaking law on state-level marriage rates as a percentage of the sample mean, which range from 10.6 to 16.1% after the homemaking provision has been introduced for over 21 years (based on specifications (3), (6), and (7) of Table 1).

**The effect of the homemaking provision by education.** To the extent that positive assortative mating by education prevails and that better educated individuals tend to have higher market earning and therefore greater asset accumulation power, the model in this paper predicts that the marital decisions of relatively better educated partners would be more responsive to the homemaking law. To examine the potential differential effects of the homemaking provision by education, I split the sample in two education groups: no high school graduates and high school graduates or above.<sup>15</sup> Panel A of Table 5 shows the effect of the homemaking provision when the sample is confined to women that are not at least high school graduates. The result shows that the law produces no statistically significant effect on the probability of marriage for this subpopulation. Panel B of Table 5 reports the

**TABLE 5.** Heterogeneous effects of the homemaking provision by education on marriage hazard

Covariates	(1)	(2)	(3)
Panel A: no high school graduates			
Homemaking provision	1.013 (0.088)	1.129 (0.131)	1.135 (0.150)
Number of subjects	2,893	2,893	2,893
Number of failure	2,165	2,165	2,165
Panel B: high school graduates			
Homemaking provision	1.103*** (0.032)	1.213*** (0.044)	1.0823** (0.043)
Number of subjects	24,481	24,481	24,481
Number of failure	18,569	18,569	18,569
Cohort controls	X	X	X
Legal regime controls	X	X	X
Other marriage-related policies	X	X	X
High school graduates or above	X	X	X
Black	X	X	X
State-fixed-effects	X	X	X
State-specific linear time trends		X	
State-specific quadratic time trends			X

*Notes:* \*\*\*Statistically significant at 1% level; \*\*Statistically significant at 5% level; \*Statistically significant at 10% level. Robust standard errors are in parentheses. The time-invariant covariates include dummies for respondents born in 1950–54, 1955–1959, 1960–1964, 1965–1969, and 1970–1974; a dummy for black, and state of residence of respondents. Time variant covariates include a series of dummy variables indicating the state of residence of the respondent is under unilateral divorce; equitable property distribution; community property regimes; and states with income withholding for child support and joint custody law.

estimates using the high school graduates or above subsample. The homemaking provision produces positive and statistically significant effect on the marriage hazard of this education group across all specifications. Nonetheless caution should be taken in interpreting the results on the no high school graduates as we can see that the sample size is much smaller than the high school graduates or above education group.

In Table 6, I use an alternative econometric specification by creating an interaction term between the homemaking provision and high school graduates or above. Across specifications, women with at least a high school education again appear to be highly responsive to the introduction of the homemaking provision. Interestingly, the estimated effects of the homemaking provision become statistically insignificant across specifications but the interaction terms between homemaking provision and high school graduates or above are all highly statistically significant. The magnitudes of the estimates are also substantially larger relative to the estimates of the effect of the homemaking provision in Table 4. Based on the results of Tables 5 and 6, the homemaking provision appears to have increased marriage

**TABLE 6.** Interaction effects of the homemaking provision and education groups on marriage hazard

Covariates	(1)	(2)	(3)
Homemaking provision	0.925 (0.060)	1.018 (0.070)	0.998 (0.087)
Homemaking provision* high school graduates or above	1.207*** (0.079)	1.206*** (0.079)	1.225*** (0.110)
Cohort controls	X	X	X
Legal regime controls	X	X	X
Other marriage-related policies	X	X	X
High school graduates or above	X	X	X
Black	X	X	X
State-fixed-effects	X	X	X
State-specific linear time trends		X	
State-specific quadratic time trends			X
Number of subjects	27,374	27,374	27,374
Number of failure	20,734	20,734	20,734
Log likelihood	-196,261	-196,176	-196,134
LR $\chi^2$	2298.6	2638.0	2791.3

*Notes:* \*\*\*Statistically significant at 1% level; \*\*Statistically significant at 5% level; \*Statistically significant at 10% level. Robust standard errors are in parentheses. The time-invariant covariates include dummies for respondents born in 1950–54, 1955–1959, 1960–1964, 1965–1969, and 1970–1974; a dummy for black, state of residence of respondents, and high school graduates or above. Time variant covariates include a series of dummy variables indicating the state of residence of the respondent is under unilateral divorce; equitable property distribution; community property regimes; and states with income withholding for child support and joint custody law.

risks for the better educated group whereas its effect on women who are not at least high school graduates appears insignificant. Taken together, the results seem to suggest that the positive effect of the homemaking provision is primarily driven by women with higher education.

***Homemaking provision and unilateral divorce.*** The homemaking provision studied in this paper is undoubtedly a product of the liberalization of divorce laws across the United States. Yet a few states actually followed suit and introduced the homemaking provision before liberalizing their divorce laws. These states include Arkansas, Illinois, and Pennsylvania. To gain additional insight on the relationship of the effect of the homemaking provision on marriage and unilateral divorce or reductions in the length of separation requirements, I include an interaction term between the homemaking provision and states that are under unilateral divorce regime (which also includes states with 2-year-or-less separation requirement) to the hazard model. Table 7 presents the estimates. Specifications (1) provides estimates without including any state-specific time trends. The homemaking provision itself appears to reduce marriage hazard but the effect of the homemaking provision under unilateral divorce regimes increases drastically.



**TABLE 7.** The interaction effect of the homemaking provision and unilateral divorce on marriage hazard

Covariates	(1)	(2)	(3)
Homemaking provision	0.859** (0.067)	0.954 (0.080)	0.998 (0.087)
Homemaking provision* unilateral	1.295*** (0.102)	1.290*** (0.108)	1.225** (0.110)
Cohort controls	X	X	X
Legal regime controls	X	X	X
Other marriage-related policies	X	X	X
High school graduates or above	X	X	X
Black	X	X	X
State-fixed-effects	X	X	X
State-specific linear time trends		X	
State-specific quadratic time trends			X
Number of subjects	27,374	27,374	27,374
Number of failure	20,734	20,734	20,734
Log likelihood	-196,262	-196,177	-196,134
LR $\chi^2$	2309.2	2647.0	2791.3

*Notes:* \*\*\*Statistically significant at 1% level; \*\*Statistically significant at 5% level; \*Statistically significant at 10% level. Robust standard errors are in parentheses. The time-invariant covariates include dummies for respondents born in 1950–54, 1955–1959, 1960–1964, 1965–1969, and 1970–1974; a dummy for black, state of residence of respondents, and high school graduates or above. Time-variant covariates include a series of dummy variables that indicates the state of residence of the respondent is under unilateral divorce; equitable property distribution; community property regimes; and states with income withholding for child support and joint custody law.

When linear state-specific time trends are introduced in specification (2), the negative effect of the homemaking provision on marriage hazard becomes statistically insignificant, yet the effect of the law under unilateral divorce regimes remains to be highly significant both statistically and economically. Specification (3) includes the state-specific quadratic time trends. Once again, only the estimated effect of the interaction term between the homemaking provision and unilateral divorce law is statistically significant. Overall, the results suggest that the homemaking provision matters when divorce is unilateral or the waiting periods for divorce are two years or less. However, they should be interpreted with caution as only a few states fall into the category in which the homemaking provision was introduced prior to unilateral divorce. Even for these few states, they eventually liberalized their divorce law.

## 6. CONCLUDING REMARKS

As divorce becomes a common phenomenon, parties that invest in human capital specifically to their marriage are increasingly concerned about their stakes in the assets accumulated in the course of the marriage upon divorce. When divorces

can be obtained easily, the laws governing the distribution of resources upon the dissolution of a marriage set by the state affect how individuals would value their marriage, which in turn would alter marital decision and how much they would invest in their own marriages. These laws affecting couples' behaviors are not necessarily confined to the division of financial assets [see also Gray (1998)] but also on other rights such as the custody of children [see Halla (2013), Rose and Wong (2014)].

The no-fault divorce revolution since the 1970s had lowered the commitment value of marriage by increasing the ease and reducing the cost of divorce, which resulted in a decline in marriage and an increase in marital breakdown. Interestingly this law that recognizes homemakers' contribution in property division at divorce appears to have restored some of the commitment value of marriage and reversed part of the effects of the no-fault divorce reform.

Using state-fixed-effect models and Cox proportional hazard models, I find convincing evidence that the homemaking provision that recognizes the non-monetary contribution of homemakers in marriage when dividing assets at divorce substantially increases marriage. The results are very robust to numerous specifications and using individual and state panel data sets: the provision increases the state-level marriage rate by at least 10.6% in the long term whereas it increases individual marriage risks by at least 9%. Such finding is important in view of the persistent decline in the marriage institution, and the mounting empirical evidence suggesting that marriage is favorable to many socio-economic outcomes of individuals. Although theoretically this law could reduce the incentives for the primary income-earner with high income to marry, the empirical evidence suggests that such effect is minor. The finding is consistent with that men in general gain a larger share of the quasi-rent in marriages and thus a shift in some of the quasi-rent from the breadwinner to the homemaker due to the homemaking provision is unlikely to affect the marital choice of most men.

The finding of this paper highlights the importance of credible commitment in making marriage an attractive deal for entering parties. Under liberalized divorce law, some spouses might value marriage less; specializing in home production, which might otherwise be a valuable aspect of marriage, becomes risky in the absence of any legal protection for their marriage-specific investment. When couples can make some credible commitment regarding the financial resource allocation in the event of divorce, such as one enforced by law, more might find it beneficial to marry, and this would at least partially alleviate the public good problem within households.

Potentially this homemaking provision might have also altered the selection into marriage. Wong (2014) found that for those that were already married before the homemaking provision was introduced, wives appear to have increased home production under the provision. The results weaken when couples married after the reform were included in the sample. In connection with this finding, Rasul (2006) provides a theoretical framework that highlights the distinction between the effects of the unilateral divorce law on the existing stock of marriage and

on newlyweds. Also under the hypothesis of Matouschek and Rasul (2008) that marriage serves as a commitment device for couples, when the cost of divorce is reduced such that cooperative behavior is harder to sustain within marriage, fewer couples would get married as a result. Yet for those that get married, the average match quality is higher.

Conceivably a similar argument can be applied to the effect of the homemaking provision: the effect of the homemaking provision on divorce could differ among couples married prior to the reform and the newlyweds due to the existence of a selection effect into marriage induced by the law. More couples get married, but the match quality on average might be reduced, which will increase the propensity to divorce on average. Understanding the selection effect on marriage produced by the homemaking provision and the effect of the law on marital stability is important in evaluating its full effect on the marriage institution, and such question is left for exploration in future research.

## APPENDIX A: SUMMARY STATISTICS

**TABLE A.1.** Descriptive statistics: State-level analysis (1976–2000)

Variables	<i>N</i>	Min	Mean	Max	Standard error
State demographics					
State-level marriage rate: number of marriages per 1,000 population aged 15–54	1,242	6.772	16.02	35.82	(3.729)
Per capita disposable personal income (in 2009 dollars)	1,242	13,068	23,086	41,324	(5,278)
Unemployment rate	1,242	0.025	0.064	0.174	(0.020)
Proportion of black population	1,242	0.062	0.305	0.398	(0.057)
Proportion of democrats in house	1,217	0.00	0.576	1.00	(0.188)
Legal regimes					
Homemaking provision regime	1,242	0.00	0.481	1.00	(0.500)
Unilateral divorce regime	1,242	0.00	0.945	1.00	(0.227)
Equitable distribution regime	1,242	0.00	0.643	1.00	(0.479)
Community property regime	1,242	0.00	0.253	1.00	(0.435)
Marriage-related policies					
Mandatory income withholding for child support	1,242	0.00	0.779	1.00	(0.415)

**TABLE A.1.** Continued

Variables	<i>N</i>	Min	Mean	Max	Standard error
Maximum AFDC or TANF monthly benefits, Three-person household (in 2009 dollars)	1,242	117.93	576.0	1309.5	(225.2)
Introduction of TANF	1,242	0.00	0.124	1.00	(0.330)
Joint-custody	1,242	0.00	0.733	1.00	(0.443)

*Sources:* Vital Statistics of the United States; the Reading Survey of Epidemiology and End Results (SEER) U.S. County Population Data; Bureau of Labor Statistics; and Bureau of Economic Analysis.

*Note:* All statistics are weighted by state population size.

**TABLE A.2.** Descriptive statistics: Individual-level analysis

Covariates	<i>N</i>	Min	Mean	Max	Standard error
Individual characteristics					
Age of first marriage conditional on number of marriage $\geq 1$	20,734	13	21.87	40	(4.381)
Black	27,374	0	0.137	1	(0.344)
High school or above education by 20	20,165	0	0.908	1	(0.289)
Legal regimes					
Homemaking provision by 20	20,165	0	0.221	1	(0.415)
Equitable distribution regime by age 20	20,165	0	0.514	1	(0.500)
Unilateral divorce regime by age 20	20,165	0	0.869	1	(0.337)
Joint custody regime by age 20	20,165	0	0.501	1	(0.500)
Mandatory income withholding for child support	20,165	0	0.548	1	(0.498)

*Sources:* Current Population Survey, June 1995 and Fertility and Marital History Supplement.

**APPENDIX B: YEAR OF ENACTMENT OF LAWS****TABLE B.1.** Year of enactment of the homemaking provision established for division of marital property in divorce law

State	Enactment year	State	Enactment year
Alabama	1989	Montana	1975
Alaska	–	Nebraska	1984
Arizona	Community property	Nevada	Community property
Arkansas	1978	New Hampshire	1987
California	Community property	New Jersey	1988
Colorado	1973	New Mexico	Community property
Connecticut	1988	New York	1980
Delaware	1980	North Carolina	1982
District of Columbia	1981	North Dakota	1989
Florida	1985	Ohio	–
Georgia	–	Oklahoma	–
Hawaii	–	Oregon	1977
Idaho	Community property	Pennsylvania	1980
Illinois	1981	Rhode Island	1983
Indiana	1978	South Carolina	1982
Iowa	1982	South Dakota	1991
Kansas	1988	Tennessee	1984
Kentucky	1972	Texas	Community property
Louisiana	Community property	Utah	–
Maine	1979	Vermont	1988
Maryland	1980	Virginia	1981
Massachusetts	1982	Washington	Community property
Michigan	–	West Virginia	1984
Minnesota	1987	Wisconsin	1977
Mississippi	1982	Wyoming	–
Missouri	1986		

*Note:* Wisconsin became a community property regime in 1986.

**TABLE B.2.** Year of enactment of unilateral divorce and equitable distribution for division of marital property in divorce law

State	Unilateral divorce	Equitable distribution	State	Unilateral divorce	Equitable distribution
Alabama	1947	1984	Missouri	1974	1977
Alaska	1935	pre-1967	Montana	1976	1976
Arizona	1974	Community property	Nebraska	1972	1972
Arkansas	1991	1977	Nevada	1967	Community property
California	1970	Community property	New Hampshire	1957	1977
Colorado	1972	1972	New Jersey	1972	1974
Connecticut	1973	1973	New Mexico	1933	Community property
Delaware	1968	Pre-1967	New York	1968	1980
District of Columbia	1966	1977	North Carolina	1933	1981
Florida	1972	1980	North Dakota	1971	Pre-1967
Georgia	1973	1984	Ohio	1975	1981
Hawaii	1970	Pre-1967	Oklahoma	1953	1975
Idaho	1971	Community property	Oregon	1972	1971
Illinois	1984	1977	Pennsylvania	1988	1980
Indiana	1974	Pre-1967	Rhode Island	1975	1981
Iowa	1971	Pre-1967	South Carolina	1979	1985
Kansas	1970	Pre-1967	South Dakota	1985	Pre-1967
Kentucky	1972	1976	Tennessee	1977	Pre-1967
Louisiana	1938	Community property	Texas	1974	Community property
Maine	1974	1972	Utah	1987	Pre-1967
Maryland	1961	1978	Vermont	1971	Pre-1967
Massachusetts	1976	1974	Virginia	1964	1982
Michigan	1972	Pre-1967	Washington	1965	Community property
Minnesota	1974	Pre-1967	West Virginia	1969	1985
Mississippi	1977	1989	Wisconsin	1978	Community property
			Wyoming	1939	Pre-1967

*Notes:* The coding for unilateral divorce comes from Iyavarakulet al. (2011). Unilateral divorce includes also states having reduced the separation time requirement as grounds for divorce to 2 years or less. The coding for equitable distribution is from Voena (2015).

## NOTES

1 I thank Eugene Volokh for suggesting this term.

2 The actual statement that is considered as the “homemaking provision” in state statute can vary somewhat across states. The below presents the relevant portions of the property division statutes for divorce from Arkansas and Montana:

*Arkansas:* (A) At the time a divorce decree is entered:

(1) All marital property shall be distributed one-half (1/2) to each party unless the court finds such a division to be inequitable, in which event the court shall make some other division that the court deems equitable taking into consideration (1) the length of the marriage, (2) age, health, and station in life of the parties, (3) occupation of the parties, (4) amount and sources of income, (5) vocational skills, (6) employability, (7) estate, liabilities, and needs of each party and opportunity of each for further acquisition of capital assets and income, (8) contribution of each party in acquisition, preservation, or appreciation of marital property, including services as a homemaker, and (9) the federal income tax consequences of the Court’s division of property. When property is divided pursuant to the foregoing considerations the court must state its basis and reasons for not dividing the marital property equally between the parties and such basis and reasons should be recited in the order entered in said matter. Ark. Stat. Ann. § 34-1214(A)(1) (Cum. Supp. 1985)

*Montana:* In making apportionment, the court shall consider the duration of the marriage and prior marriage of either party; the age, health, station, occupation, amount and sources of income, vocational skills employability, estate liabilities, and needs of each of the parties; custodial provisions; whether the apportionment is in lieu of or in addition to maintenance; and the opportunity of each for future acquisition of capital assets and income. The court shall also consider the contribution or dissipation of value of the respective estates and the contribution of a spouse as a homemaker or to the family unit. Mont. Code Ann. § 40-4-202(1) (1987)

3 Under the common-law doctrine of established legal principles, judicial precedents amount to law-making [Hogue (1985)].

4 For instance, North Carolina enacted the equitable distribution act, effective October 1, 1981. The statute sought to alleviate the unfairness of the common law rule by applying the equitable distribution principle in property division at divorce based on “the idea that marriage is a partnership enterprise to which both spouses make vital contributions and which entitles the homemaker spouse to a share of the property acquired during the relationship” (White v. White, 312 N.C. 770, 324 S.E.2d 829 (1985)). Under this act of 1981, legal titles for assets accumulated during marriage are of no significance in property division at divorce by the court. Some jurisdictions, in contrast, recognize homemakers’ contribution in property by permitting the court to make equitable distribution of the marital property at divorce.

5 For example LaRue v. LaRue (304 S.E.2d 312 (1983)) established the precedent of recognizing homemakers’ non-monetary contribution in property division at divorce in West Virginia, and subsequent to this case, West Virginia passed the equitable distribution statute in 1984 and the statute was further enhanced in 1986, which explicitly listed homemaking contribution as one of the factors in equitable distribution.

6 Prenuptial agreements might offer more flexibility as to the terms couples want to put in their marital contracts, but such agreement remains uncommon in the United States.

7 The conditions that characterize the subgame perfect Nash equilibria for traditional and contemporary marriage are independent of which party moves first, as the payoffs for the man and woman off the equilibrium path when one party refuses to marry are the same irrespective of which party actually rejects the proposal.

8 As such  $f$  would just stand for the male partner and  $m$  would be the female partner and the results from this model would still apply as the homemaking provision is gender neutral in principle.

9 In my model, if the wife chooses to work in the labor force, for simplicity it is assumed that she would not specialize in home production at all and thus would not benefit from the homemaking provision at divorce. But in reality, she might spend less time but still some significant amount of time



in home production. As such, she would still somewhat benefit from the homemaking provision but to a lesser extent compared to a full-time homemaker.

10 Theoretically, this can occur because the specific form of the sharing rule is not modeled in this framework. However, this condition (3.13) is unlikely to be violated because men are assumed to have a larger bargaining power with higher market earnings.

11 Except for joint custody in Washington State. My search suggests that joint custody (known as “parenting plan” in Washington State) was enacted in 1987. See the Parenting Act of 1987, Laws of 1987, ch. 460 and Marriage of Kovacs 121 Wn.2d 795 (1993) 854 P.2d 629 for a judicial interpretation of the act. However the results are unaffected by the revision.

12 This includes Alaska (1994), District of Columbia (1994), Hawaii (1994), and Virginia (1995).

13 According to Halla (2013), the average marriage rate of Nevada is about 12 times higher than the average of all other states and its divorce rate is nearly the triple of other states.

14 The real treatment groups are also included in the regressions but are not reported. The estimated effects are still similar to the estimates provided in the main analysis for the real treatment groups.

15 I have not categorized degree or above education as a separate group because the younger cohorts might not have completed their degree education by 1995, and a non-negligible portion of the population might defer but eventually complete their degree education after 1995. In contrast, high school dropouts are less likely to return to school, especially not after teenage.

## REFERENCES

- Allen, Douglas W. (1992) Marriage and divorce: Comment. *American Economic Review* 82, 679–685.
- Aura, Siow (2002) Uncommitted Couples: Some Efficiency and Policy Implications of Marital Bargaining. CESIFO working paper 801.
- Baer, Judith A. (1996) *Women in American Law: The Struggle Toward Equality from the New Deal to the Present*. New York, London: Holmes & Meier Publishers.
- Basu, Kaushik (2006) Gender and say: A model of household behaviour with endogenously determined balance of power. *Economic Journal* 116, 558–580.
- Batts, Deborah A. (1988) Remedy refocus: In search of equity “enhanced spouse/other spouse” divorces. *New York University Law Review* 63, 751–808.
- Bennett, Neil G., David E. Bloom and Patrick H. Craig (1989) The divergence of black and white marriage patterns. *American Journal of Sociology* 95, 692–722.
- Brinig, Margaret F. and Frank H. Buckley (1998) No-fault laws and at-fault people. *International Review of Law and Economics* 18, 325–340.
- Buckles, Kasey S. and Joseph Price (2013) Selection and the marriage premium for infant health. *Demography* 50, 1315–1339.
- Cáceres-Delpiano, Julio and Eigenio P. Giolito (2012) The impact of unilateral divorce on crime. *Journal of Labor Economics* 30, 215–248.
- Case, Anne (1998) The effects of stronger child support enforcement on nonmarital fertility. In Irwin Garfinkel, Sara S. McLanahan, Daniel R. Meyer, and Judith A. Seltzer (eds.), *Fathers Under Fire: The Revolution in Child Support Enforcement*, pp. 191–215. New York, NY: Russell Sage.
- Coen-Pirani, Daniele, Alexis León, and Steven Lugauer (2010) The effect of household appliances on female labor force participation: Evidence from microdata. *Labour Economics* 17, 503–513.
- Cohen, Lloyd R. (1987) Marriage, divorce, and quasi rents: Or, “I gave him the best years of my life”. *Journal of Legal Studies* 16, 267–303.
- Cohen, Lloyd R. (2002) Marriage: The long-term contract. In Antony W. Dnes and Robert Rowthorn (eds.), *The Law and Economics of Marriage and Divorce*, pp. 10–34. Cambridge: Cambridge University Press.
- Dnes, Antony W. (1998) The division of marital assets following divorce. *Journal of Law and Society* 25, 336–364.
- Dnes, Antony W. and Robert Rowthorn (2002) *The Law and Economics of Marriage and Divorce*. Cambridge: Cambridge University Press.

- England, Paula and Nancy Folbre (1999) The cost of caring. *Annals of the American Academy of Political and Social Science* 561, 39–51.
- Feerick, Dean J. (1986) Report of the New York task force on women in the courts. *Fordham Urban Law Journal* 15, 64–100.
- Fineman, Martha L. (1989) Factors affecting the creation of legal rules for distribution of property at divorce. *Family Law Quarterly* 23, 279–299.
- Friedberg, Leora (1998) Did unilateral divorce raise divorce rates? Evidence from panel data. *American Economic Review* 88, 608–627.
- Gray, Jeffrey S. (1998) Divorce-law changes, household bargaining, and married women's labor supply. *American Economic Review* 88, 628–642.
- Greenberg, Diane (1981, Oct. 25). More Women Seek Divorces in Equitable Settlement Law. *New York Times*, p. A1.
- Greenwood, Jeremy, Ananth Seshadri, and Mehmet Yorukoglu (2005) Engines of liberation. *Review of Economic Studies* 72, 109–133.
- Gruber, Jonathan (2004) Is making divorce easier bad for children? The long-run implications of unilateral divorce. *Journal of Labor Economics* 22, 799–833.
- Halla, Martin (2013) The effect of joint custody on family outcomes. *Journal of the European Economic Association* 11, 278–315.
- Hogue, Arthur R. (1985) *Origins of the Common Law*. Indianapolis: Liberty Press.
- Iyavarakul, Tongyai, Marjorie B. McElroy, and Kalina Staub (2011) Dynamic Optimization in Models for State Panel Data: A Cohort Panel Data Model of the Effects of Divorce Laws on Divorce Rates. Economic Research Initiatives at Duke working paper 140.
- Iyigun, Murat (2005) Bargaining and Specialization in Marriage. IZA discussion paper 1744.
- Jacob, Herbert (1988) *Silent Revolution: The Transformation of Divorce Law in the United States*. Chicago, IL: University of Chicago Press.
- Johnson, William R. and Johnson Skinner (1986) Labor supply and marital separation. *American Economic Review* 76, 455–469.
- Jones, Mary S. (1987) *An Historical Geography of the Changing Divorce Law in the United States*. New York: Garland Publishing.
- Kirk, Dudley (1960) The Influence of Business Cycles on Marriage and Birth Rates. NBER working paper 2388.
- Klerman, Jacob A. and Steven J. Haider (2004) A stock-flow analysis of the welfare caseload. *Journal of Human Resources* 8, 865–886.
- Lundberg, Shelly and Robert A. Pollak (2003) Efficiency in marriage. *Review of Economics of the Household* 1, 153–167.
- Lundberg, Shelly (2008) Gender and household decision-making. In Francesca Bettio and Alina Veshchagina (eds.), *Frontiers in the Economics of Gender*, pp. 116–134. London/New York: Routledge.
- Luton, Joseph P. and James P. Smith (2003) Marriage, assets and savings. In Grossbard-Shechtman (ed.), *Marriage and the Economy: Theory and Evidence From Advanced Industrial Societies*, pp. 129–152. Cambridge: Cambridge University Press.
- Matouschek, Niko and Imran Rasul (2008) The economics of the marriage contract: Theories and evidence. *Journal of Law and Economics* 51, 59–110.
- Parkman, Allen M. (1992) Unilateral divorce and the labor force participation rate of married women, revisited. *American Economic Review* 82, 671–678.
- Parkman, Allen M. (2000) *Good Intentions Gone Awry: No-fault Divorce and the American Family*. Lanham: Rowman & Littlefield.
- Parkman, Allen M. (2002) “Mutual consent divorce?” In Antony W. Dnes and Robert Rowthorn (eds.), *The Law and Economics of Marriage and Divorce*, pp. 57–63. Cambridge: Cambridge University Press.
- Rasul, Imran (2003) The Impact of Divorce Laws on Marriage. Working paper. University of Chicago and CEPR.

- Rasul, Imran (2006) Marriage markets and divorce laws. *Journal of Law, Economics and Organization* 22, 30–69.
- Rose, Elaina and Ho-Po C. Wong (2014) But Who Will Get Billy? The Effects of Child Custody Laws on Marriage. IZA working paper 9611.
- Schoeni, Robert F. and Rebecca M. Blank (2000) What has Welfare Reform Accomplished? Impacts on Welfare Participation, Employment, Income, Poverty, and Family Structure. NBER working paper 7627.
- Scott, Elizabeth S. (2002) Marital commitment and regulation of divorce. In Antony W. Dnes and Robert Rowthorn (eds.), *The Law and Economics of Marriage and Divorce*, pp. 35–56. Cambridge, UK: Cambridge University Press.
- Sharp, Sally B. (1987) The partnership ideal: The development of equitable distribution in North Carolina. *North Carolina Law Review* 65, 195–255.
- Stevenson, Betsey and Justin Wolfers (2006) Bargaining in the shadow of the law: Divorce laws and family distress. *Quarterly Journal of Economics* 121, 267–288.
- Stevenson, Betsey (2007) The impact of divorce laws on marriage-specific capital. *Journal of Labor Economics* 25, 75–93.
- Stevenson, Betsey (2008) Divorce law and women's labor supply. *Journal of Empirical Legal Studies* 5, 853–873.
- Voena, Alessandra (2015) Yours, mine and ours: Do divorce laws affect the intertemporal behavior of married couples? *American Economic Review* 105, 2295–2332.
- Waite, Linda J. (1995) Does marriage matter? *Demography* 32, 483–507.
- Weitzman, Lenore J. (1985) *The Divorce Revolution: The Unexpected Social and Economic Consequences for Women and Children in America*. New York: Free Press.
- Williamson, Oliver E. (1979) Transaction-cost economics: The governance of contractual relations. *Journal of Law and Economics* 22, 233–261.
- Wolfers, Justin (2006) Did unilateral divorce law raise divorce rates? A reconciliation and new results. *American Economic Review* 96, 1802–1820.
- Wong, Ho-Po C. (2014) When Homemakers are Compensated: A Study of the Effects of Homemaking Provision in Property Division Following Divorce on Time Allocation of Married Couples. Working paper.