The Impact of Divorce Laws on Marriage-Specific Capital

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Abstract

This paper considers how divorce law affects couples' incentives to make investments in their marriage. In particular, we analyze state changes in divorce laws that allowed divorce on demand by either spouse and removed fault as a basis for property division. These changes in family law potentially affect the incentives to make investments whose returns are partly marriage-specific, such as in a spouse's education, home ownership, children, and specialization in market versus non-market production. In order to minimize the problems caused by the endogeneity of the survival of a marriage, this paper focuses on newlywed couples in their first marriage. I find that adoption of unilateral divorce reduces investment in all types of marriage-specific capital considered except home ownership. Unilateral divorce laws – regardless of the property division laws – leads to less support of a spouse's education, fewer children, greater female labor force participation and an increase in households with both spouses engaged in full-time work. In contrast, results for home ownership depend on the underlying property division laws and suggest an increase in home ownership under no-fault property division.

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1. Introduction

In the 1970s and 1980s many states adopted unilateral divorce laws, thereby allowing divorce on demand by either spouse. This legal change was part of a broader movement in which states began to recognize "irreconcilable differences" as a legitimate reason for divorce. Economists have looked to this change to learn about spousal bargaining and the extent to which public policy can affect outcomes within families. "Exit threat" bargaining models posit that household distribution may be a function of each spouse's best offer outside the marriage; as divorce laws play a large role in determining options outside of marriage these changes have the potential to affect many aspects of married life. Furthermore, marriage and divorce laws set the parameters for intertemporal contracting between partners and hence are likely to influence the incentives to make investments that are beneficial in marriage, but less so if divorced.

Couples make decisions, such as whether or not to have children, how many children to have, whether to buy a house, whether one spouse should invest in more education, how to divide home versus market work, that affect both the value of their marriage in the future and their outside options. These investments have long been recognized by economists as a central part of marriage. Becker (1981) emphasizes the gains from marriage that occur from household specialization and the production of own children. However, these investments may either lose value or be captured by one spouse when the marriage ends. For instance, a wife who specializes in home production is foregoing the opportunity to develop market-based skills. Similarly, a wife who invests in the human capital of her spouse may not benefit from that investment if the marriage ends. Consumption of children is non-rival within a household, but if the household dissolves, the returns on this investment may diminish due to child custody restrictions. Additionally, some investments—such as housing—are not intrinsically

¹ Weitzman (1985)

marriage-specific, but involve sufficiently large transaction costs that their value within the marriage is far greater than that when divorced – particularly if the marriage ends quickly.

Divorce laws affect the incentive to invest in marriage-specific capital for several reasons. First, if liberalizing access to divorce raises the divorce rate, then each spouse is less likely to reap the benefits of marriage-specific capital, reducing the incentive to jointly invest. An alternative channel considers intra-household distribution and marital-bargaining. To the extent that divorce laws shift bargaining power within the household, then decisions about marital investments may change, particularly if couples differ in their preferences for particular marital investments. Furthermore, once a marriage-specific investment has occurred, the returns are pure rents, and hence the incentive to jointly invest may depend upon the ability of the couple to commit to a specific distribution of future rents, which is likely shaped by divorce law. Finally, couples may use investment in marriage-specific capital strategically – over-investing today so as to constrain their future selves to prefer to remain married than to divorce. As such, robust investment in marriage-specific capital may be used to partially offset the incomplete enforcement of marriage contracts by the state.

Assessing changes in marriage-specific investments stemming from divorce law reform is complicated by important selection effects, as changes to divorce laws may affect both the likelihood that a couple divorces and that a couple marries, thus changing the composition of the stock of married couples. While the next section will discuss the relationship between divorce laws and divorce more thoroughly, it is sufficient here to highlight the fact that among all couples many of the marital investment decisions will have been made prior to divorce reform. As such, studying the investment decisions of those who married under one regime, but are currently married under another, tells us nothing about the decision such couples would make had their marriages existed entirely under the new regime. Alternatively, after divorce reform, couples that form may make different investment decisions directly as a result of the new regime, or indirectly through changes in spousal selection. Therefore, studying the investment behavior of newlyweds allows us to isolate the total effect of divorce reform on

investment in marriage-specific capital (that stemming both from changes in who marries and their subsequent behavior within marriage), while minimizing the bias stemming from selection out of marriage.

This paper examines the investment decisions of couples in their first two years of marriage using the 1970 and 1980 Censuses. During this period many states changed their divorce laws to allow unilateral divorce and many removed fault as a consideration in property settlements. The empirical strategy compares changes in the behavior of newlyweds in states that change their divorce laws with those in states that do not. The changes in newlywed marital behavior that are examined include female labor force participation, full-time labor market work by both spouses, supporting a spouse's investment in education, children, and home ownership. Couples in states that adopted unilateral divorce prior to 1970 and those in states that had not adopted unilateral divorce by 1980 serve as controls for couples in states that change their divorce laws over this period.

I find that newlywed couples in states that allow unilateral divorce are about 10% less likely to be supporting a spouse through school. They are 8% more likely to have both spouses employed in the labor force full-time and are 5% more likely to have a wife in the labor force. Finally, they are about 6% less likely to have a child. These results are robust to controlling for the presence of no-fault property division and state's type of property division laws. Furthermore, interacting unilateral divorce with property division laws shows that these results are largely consistent across different regimes regarding property division, with the exception of home ownership. For home ownership I find that the adoption of unilateral divorce has no effect on the probability of newlyweds owning a home. However, property division laws appear to matter for home ownership – couples in states that change their divorce laws such that fault is not a consideration in property division increase their home ownership as do those in states that adopt unilateral divorce and have community property or equitable division property division laws.

2. Divorce Laws and Investment in Marriage-Specific Capital

Between 1967 and 1978, twenty-nine states changed their law to allow for unrestricted unilateral divorce. Prior to this all only three states allowed unrestricted unilateral divorce. Most required either mutual consent or proof of marital wrongdoing in order to grant a divorce, while a few allowed unilateral divorce after lengthy separation periods. Unilateral divorce permits divorce upon the request of one spouse, regardless of the other spouse's wishes. This legal reform redistributes bargaining power from the party most interested in preserving the marriage to the person who most wants out of the marriage. To understand how this may change the incentive to invest in marriage-specific capital, we need to consider how the legal change affects the likelihood of divorce, and intrahousehold distribution of resources.

The most obvious way that divorce law may affect the desire to invest in marriage-specific capital is by changing divorce. By definition, marriage-specific capital has less value outside of marriage and therefore becomes less valuable when the likelihood that the marriage ends increases or as the expected duration of the marriage decreases. This channel unambiguously implies that divorce reform that decreases the time spent in a marriage will yield an expected decrease in investment in marriage-specific capital of all forms.

The question of whether unilateral divorce led to higher divorce rates has been a hotly contested with both theoretical and empirical work pointing in both directions.⁴ On the theory side, Becker, Landes and Michael (1977) argue that marital bargaining is "an excellent illustration of the Coase Theorem that the allocation of property rights or legal liability does not influence resource allocation when the parties involved can bargain with each other at little cost." By contrast, Peters (1988) argues

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² Currently 34 states allow for unrestricted unilateral divorce, Utah and South Dakota adopted unrestricted unilateral divorce in the mid-1980s. The other three states had pre-existing unrestricted unilateral divorce.

³ Idaho, Kentucky, Nebraska, New Jersey, Rhode Island, Texas, and Washington allowed unilateral divorce following a 5-year separation. Arkansas, Nevada, and Utah allowed unilateral divorce after a of 3-year separation.

⁴ Peters (1986), Peters (1992), and Wolfers (2003) all find that divorce rates did not much increase as a result of unilateral divorce. Allen (1992) and Friedberg (1998) find that they did.

that a "fixed wage" contract may better describe marital bargaining, and under such a contract the divorce rate is affected by divorce laws.

Empirically, Gruber (2004) argues that census data show that the stock of divorced people rose significantly in unilateral divorce states. However, research by Wolfers (2006) reveals that, while the stock of the currently divorced may have risen, the probability of being ever-divorced is little changed by unilateral divorce laws. Friedberg (1998) notes that the flow of new divorces does in fact rise following a shift to unilateral divorce laws, although Wolfers (2006) shows that these effects are transitory and fade out within a decade. One reconciliation of these results is that unilateral divorce leads to earlier divorce and less remarriage, a finding confirmed in Rasul (2006). The implication of this interpretation is that divorce laws may affect the expected duration of a marriage without affecting the probability of dissolution. Thus, while the literature may not have a consensus on the impact of divorce laws on the probability of divorce, much of the evidence points to a decline in the duration of marriages, and thus a role for divorce in providing decreased incentives to invest in marriage-specific capital following the adoption of unilateral divorce.

In contrast, to the extent that couples may attempt to pre-commit to not divorcing, unilateral divorce laws may have the opposite effect – increasing the desire to make costly investments that will increase the value of the marriage in future years. In this case we would expect to see couples making more symmetric investments (investments that increase the value of the marriage to both parties), while having little effect on asymmetric, intertemporal investments (a wife supporting her husband through school only makes the future marriage more valuable for her, not for her husband).

Unilateral divorce may also change investment in marriage-specific capital by changing household distribution through a change in relative bargaining power within the household. The predicted impact of unilateral divorce laws on household distribution depends on the model of the family being considered (Lundberg & Pollak). Those that rely on a common preference function or internal threat points to determine household distribution predict little change in distribution resulting

from a change in divorce laws. In contrast, external threat-point models rely on the outside options of each spouse to determine household distribution. Since unilateral divorce makes it easier for a spouse to exit a relationship, it improves the outside options of a spouse who wants to exit the marriage. As such, unilateral divorce shifts power, and therefore resources, from the person most interested in preserving the marriage to the person most interested in exiting the marriage. This shift in bargaining power may shift investment toward the preferences of the person most likely to be interested in exiting the marriage.

Research by Stevenson and Wolfers (2006) find a decrease in female suicide and domestic violence when unilateral divorce laws are enacted. They interpret these findings as suggesting that unilateral divorce laws shift bargaining power to women. Additionally, Gray (1998) argued that unilateral divorce, coupled with common law property division, shifts bargaining power to men, while unilateral divorce combined with community property laws shifts bargaining power to women. So while this shift has the potential to change investment patterns to reflect the preferences of women in some cases and men in others, there is no clear *a priori* direction in which preferences would be moved in either case. For instance, it is unclear whether greater female labor force participation reflects more or less bargaining power held by women.⁵

Finally, it should be noted that some investments (children) may be "unplanned" and may in fact lead to marriage. In the face of unilateral divorce laws, one would expect that the easier access to divorce might encourage couples to "try out" marriage in the face of an unplanned pregnancy. As such, we might expect to see more marriages where the conception occurred prior to the marriage.

⁵ Similarly, one might argue that women tend to be more interested in having children, yet women who are fearful of divorce may be more reluctant than their husbands to have children since women's value in the remarriage market may fall when they have children.

3. Empirical Strategy

Data from the 1970 and 1980 censuses on the age of first marriage can be used to calculate the year of marriage for individuals currently in their first marriage. Because divorce laws may change selection both into and out of marriage, focusing on currently married couples induces potentially confounding influences. Selection out of marriage may result in an observation of less investment in marriage specific capital even if no one changed their behavior regarding investment. The reason is that one might expect bad marriages to dissolve earlier under unilateral divorce laws, so there will be more "bad marriages" prior to unilateral divorce. If bad marriages have lower marriage-specific investments, then even if no one changes their investment behavior, regressions examining the effect of unilateral divorce on marital investment will show an *increase* in marriage-specific investments among married couples.

Selection into marriage may be changed by unilateral divorce in a way that may result in marriage-specific investment being either more or less likely. Couples may be more likely to take a risk on a high variance match when they know that they can exit the marriage more easily, and this may lead average match quality to fall as the cost of a bad match falls. These marriages may also have less marriage-specific investment. Alternatively, couples may perceive a fall in the expected gain from marriage under unilateral divorce and may therefore become more selective leading to a rise in match quality (Rasul 2006). The first effect may lead to a finding of less investment in marriage-specific capital and the second effect may lead to a finding of more investment. These effects are in addition to those that would be seen if we could hold match quality constant.

Because selection out of marriage generates potential biases in estimates of the effect of unilateral divorce on marriage-specific investments, I consider individuals in the first two years of marriage. These newlyweds have been married such a short time that selection *out of marriage* is

⁶ The census stopped collecting information on age of first marriage and number of times married after 1980.

unlikely to have taken place. Therefore, regressions based on newlyweds should not contain bias from the disappearance of bad marriages from the sample. While we won't be able to distinguish between the effects of changes in match quality and changes in behavior within a match, by focusing on newlyweds the results isolate the causal impact of unilateral divorce in overall marriage-investment through both channels.

The empirical strategy is to compare changes in the investment behavior of newlywed couples in the 1970 and 1980 censuses across states. In addition to the passage of unilateral divorce laws during this period, states vary in how they divide marital property. While the specific property division laws of each state vary, prior to the 1970s states can be divided into three regimes regarding property division: common law property, community property, and equitable division. Three states changed from a common law regime – which holds that marital property is divided at divorce according to who has legal title to the property – to one of equitable division – which gives judges discretion in allocating marital property according to what the judge deems is fair. In addition to changing the grounds for divorce, 19 states removed fault as a consideration in property division between 1970 and 1980, with Hawaii removing it in 1960.

Table 1 shows the year unilateral divorce was implemented, the initial type of property division law, the year of the change to equitable division for common law property states that changed, and the year that no-fault property settlement was adopted. The coding of year of unilateral divorce follows Gruber (2004). Results presented are robust to following the coding for unilateral divorce used in Friedberg (1998). Other widely used codings of divorce laws focus on changes to property division. For instance, the coding in Table 1 of the year of no-fault divorce follows Ellman & Lohr (1998) and that of property division types follows Gray (1998).

⁸ This division follows Gray (1998).

⁷ Alternatively, because individuals know that a potential spouse is more likely to want to divorce, and since divorces are emotionally and financially costly, some individuals may be more cautious about entering a marriage.

Data from the 1970 and 1980 Censuses of Population provides information on an individual's age at first marriage, their current age, their current marital status, their state of residence and whether or not they are in their first marriage. In addition, individuals can be matched to their current spouse in order to ascertain whether it is a first marriage for both spouses and to control for both own and spouse's characteristics.

Several outcome variables – forms of marriage-specific capital – are investigated. The regression considers only the population of newlyweds, and the independent variable of interest is an indicator of whether or not unilateral divorce laws prevailed at the time of the marriage. The regression run is:

$$Outcome_{i,s,t} = \alpha + \beta \ Unilateral_{s,t} + \phi No\text{-}fault \ Property_{s,t} + \delta Equitable \ Division_{s,t} + \lambda Year \ of \ Census_t + \sum_s \eta_s State_s + \gamma Length \ of \ Marriage_{i,s,t} + \mathbf{X}_{i,s,t} \varphi + + \varepsilon_{i,s,t}$$

where *Unilateral* is a dummy variable equal to one if the state, s, has enacted unilateral divorce prior to the year of marriage; *Year of Census* and *State* refer to fixed effects; *Length of Marriage* is a control for the number of half years the couple has been married¹¹, X_{ist} is a set of individual and partner controls, and *No-fault Property* and *Equitable Division* dummy variables indicate the presence of specific property division laws (Common Law is the omitted category).¹² Standard errors are clustered at the level of state*census year, essentially implementing a "long differences" research strategy.

The *X* matrix includes controls for individual characteristics that are not likely to be affected by unilateral divorce, including: race, ethnicity, and metropolitan status. I do not control for variables that

⁹ Major reforms to child custody laws began in the 1980s, after the reforms to divorce and marital property were largely complete (Brinig and Buckley, 1998).

¹⁰ State of current residence is used to proxy for the state of residence in which a divorce would likely occur and thus the state law that is most relevant for investment decisions. Results are robust to examining only couples who have lived in the state throughout their marriage and to considering only those who were born in the state (and thus perhaps less likely to anticipate changing states in the future).

¹¹ Length of marriage is calculated using the age of first marriage, quarter of marriage, and quarter of birth for both spouses. Averages are taken when there is a discrepancy between spouses reporting.

¹² Three states changed from common law property division to equitable division during this period. Thus equitable division is included as a control, common law is the excluded category, and community property is collinear with the state fixed effects and is therefore not included.

might be affected by unilateral divorce so as to capture the full effects of the reform. For instance, one might want to control for family income in a home ownership regression, but family income is likely to be affected by unilateral divorce if women are more likely to work outside the home. A further set of controls including own and spouse's age and education (in the first two years of marriage) partially account for match quality. While these controls do not fully control for match quality comparing results across specifications can provide suggestive evidence of whether the estimated effect is driven only by changes in match quality.

4. Results

Table 2 shows the results of adopting unilateral divorce on all of the outcomes of interest. The first column shows the baseline specification which controls only for gender, state and year fixed effects. The second column adds controls for own age, race, and education, as well as a control for metropolitan status. The third column adds controls for one's spouse's age, race, and education. The fourth column adds controls for property division laws including a dummy variable for no-fault property division and controls for type of property division laws – a dummy variable for whether the state has no-fault property division in that year and individual dummy variables for the type of property division law in a state-year.

The first outcome of interest considers whether unilateral divorce affects the willingness of one spouse to support another spouse in education. Unilateral divorce laws make it difficult to credibly promise to support a spouse tomorrow who is helping you get education today. As a result spouses may be more reluctant to engage in sequential investment in each other's human capital and we should see fewer couples where one is a student and the other is employed.¹³ The first row of Table 2 reports probit estimates analyzing the likelihood of being a couple with one spouse employed while the other is

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¹³ Couples can choose either to either both invest simultaneously or not invest.

a student: coefficients are reported as elasticities evaluated at the mean of the dependent variable.¹⁴ The baseline estimate shows a decrease of 1.3 percentage points, or 10%, in the probability of being a student supported by your employed spouse. Adding controls for own and spousal demographics and property division laws reduce the coefficient slightly, but it remains a statistically significant reduction of about 10%.

The second form of marriage-specific capital investigated is household specialization.

Specialization within the family generally means that one person in a marriage specializes in the market sector, while the other person specializes in the non-market sector. These specialized skills are highly complementary within a marriage, but less useful when single. Although market- or non-market skills may be transferable to another marriage, they will go under-utilized during any period that either partner is single. Additionally, if spouses cannot commit to sharing future rents from skill formation, then each will be less willing to invest in the skills of the other. Both of these mechanisms imply that unilateral divorce laws may lead to less specialization as evidenced by more two-earner couples (more equitable investment in both market and nonmarket skills).

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The second and third rows of Table 2 examine whether both spouses are employed full-time and whether the wife is employed at all. The baseline specification shows a 2 percentage point increase in both spouses being employed full time in unilateral divorce states. This estimate is consistent across the columns as controls for individual and spousal demographics and state property division laws are added. These estimates suggest that unilateral divorce is associated with an 8% increase in the probability that both spouses will work.

¹⁴ None of the specifications control for education since the outcome of interest is whether or not the spouse is in school.

¹⁵ Previous research has shown that female employment increases both following a divorce and in anticipation of divorce (Johnson & Skinner 1986). Parkman (1992) finds that women increase their labor force participation in unilateral divorce states. Gray (1998) finds that the impact of unilateral divorce on female labor force participation depends on the underlying laws governing property division and that in common law states unilateral divorce is associated with a decrease in the labor supply of all married women and it is associated with an increase only in community property states. None of this research has adequately addressed the issue of selection out of marriage.

The next row shows that there is a 1.5 percentage point increase in the probability that the wife is employed in the baseline specification. Adding controls increases the estimate slightly and there is a 2.4 percentage point increase, or a 5% increase that a new wife is employed, once all controls are added.16

The next form of investment I examine is fertility. Becker (1974) describes children as "the most obvious and dominant example of marriage-specific investment." Children are produced in households by husbands and wives investing time and resources in them. One aspect of the return on children is the love, attention, and pride that they give their parents. The ability to extract these returns diminishes upon divorce because parents, particularly the non-custodial parent, spend less time with their children. Alternatively phrased children provide a flow of non-rivalrous consumption within marriage whose consumption may be rivalrous upon its dissolution. Furthermore, children may be a hindrance to remarriage and an unpleasant reminder of the first marriage. Accordingly, when the contractual bonds of marriage are weakened, couples may choose to reduce either the total number of children conceived in the marriage or investment in the children they do have. Previous research has shown that children who grow up in households in states with unilateral divorce have worse outcomes.¹⁸ One explanation for these worse outcomes is that parents make fewer investments in their children under unilateral divorce.

The fourth row shows a statistically insignificant decrease of 0.8 percentage points in the likelihood of having children in the baseline specification. Adding demographic controls and controls for spousal demographics yields a statistically significant decrease of 1.9 percentage points in the probability of having children in the first two years of marriage. Adding controls no-fault property

¹⁶ These estimates differ from previous approaches, such as Gray (1998), by explicitly controlling for the length of marriage and limiting the analysis to those early in their marriage.

¹⁷ p. 823 ¹⁸ Gruber (2004).

division and type of property settlement increases the coefficient to a decrease of 2.4 percentage points or an 8 percent decline in the probability of having children in the first two years of marriage.

The results in the baseline specification indicate that the effect on children is sensitive to the inclusion of demographic controls. Recall that unilateral divorce may encourage people to marry who already have (or are expecting) children. If we consider the timing of conception, we find a statistically significant *decrease* in the likelihood of having children conceived after marriage in the baseline specification and a statistically significant *increase* in the likelihood of having children conceived prior to the marriage. Adding controls results in an estimated effect of unilateral divorce on the likelihood of having a child conceived after marriage that is slightly larger than the estimates on all children reported in Table 2. For children conceived prior to conception, adding controls reduces the coefficient, but there remains a statistically significant increase in the likelihood of having a child conceived prior to marriage.¹⁹

The final outcome considered is home ownership. The home of a married couple typically represents their most valuable joint asset and involves large transaction costs, making the purchase decision costly to reverse. Home ownership is an investment that is jointly beneficial when married, but one that has ready substitutes – rental units. Furthermore, couples jointly make choices about how much to invest in the home. Home ownership clearly represents more investment in marriage-specific capital than does renting. This specifically reflects both substantial transaction costs in buying and selling a home and improvements that reflect a couple's idiosyncratic tastes.

Alternatively, purchasing owning a home changes the threat point under mutual consent divorce. With mutual consent divorce, each spouse's threat point is simply to exit the relationship without obtaining a divorce or property settlement. Owning a home makes this threat more costly and therefore we may expect to see unilateral divorce lead to a rise in home ownership as leaving without a

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¹⁹ Regressions available from the author.

property division is no longer a potentially beneficial option (a spouse who wants to leave can always get a divorce under unilateral divorce).

The census identifies whether a couple lives in a rental unit or a home that they own. I use an indicator variable for home ownership as my dependent variable. The estimated coefficients represent a relatively precise zero: there appears to be no effect on home ownership. Adding controls for no-fault property settlement and type of property settlement laws has little effect on this coefficient.

Table 3 considers whether the effect of unilateral divorce varies depending on the underlying laws regarding property division in a state. Panel A of Table 3 follows Gray (1998) in asking whether the effect of unilateral divorce depends on whether the state has equitable division, community property, or common law property division laws. Recall that in equitable division states judges have more discretion in property allocation than they do in either common law or community property states. Additionally, community property states are viewed as transferring more assets to women in divorce settlements than in common law property division states since assets tend to be disproportionately held in the husband's name. Since the property division laws determine how the assets are divided upon divorce we might expect the effect of unilateral divorce to vary based on the underlying property division. Similarly, we might expect that whether or not fault is relevant in the property settlement may affect the impact of unilateral divorce on investment in marriage-specific capital or might independently affect such investment. The bottom Panel of Table 3 reports separate effects for unilateral divorce with no-fault property division and unilateral divorce without no-fault property division, as well as the independent effect of adopting no-fault property division.

It should be noted from Table 1 that in parsing this effect out across the three property division regimes there are fewer state changes to identify the effects. For instances, in community property states, all states except Louisiana had unilateral divorce by 1973. Among common law states, 4 states changed their divorce laws to allow unrestricted unilateral divorce – Alabama, Florida, Georgia, and

Rhode Island. The majority of the states, 29, follow equitable division which had 4 states change their divorce law to allow unilateral divorce prior to 1970, 17 that changed between 1970 and 1980, and 8 that had not adopted unilateral divorce by 1980.

Panel A of Table 3 reports coefficients on unilateral divorce for all outcomes across the different forms of property division (direct effects are not shown as only three states changed from one regime to another during this period, however they are included as controls). For spousal support of education there is a statistically significant decrease of 2 percentage points in equitable division states that adopt unilateral divorce and a decrease of 1 percentage point in community property laws that adopt unilateral divorce. In common law states that adopt unilateral divorce there is a weakly significant increase in the probability of supporting a spouse's education. Given the caveat that this coefficient reflects only a small number of changes these results are at best suggestive. Panel B shows a statistically significant decrease in the likelihood of supporting a spouse's education in states with unrestricted unilateral divorce that both did and did not remove fault as a consideration in property settlement. While the estimated coefficient is slightly larger for states that adopted unilateral divorce and no-fault property settlement, the two coefficients are not statistically significantly different from each other. There is no significant effect stemming from the adoption of no-fault property settlement.

The next two columns show the results for the probability that both members of a couple are employed full-time and that the wife is employed. Panel A shows that in both cases the coefficient on unilateral divorce is slightly higher in community property states, but regardless of the underlying property division laws unilateral divorce leads to greater female employment and less household specialization for newlywed couples.²¹ Panel B shows an increased likelihood of dual-full-time couples and wives working stemming from unilateral divorce in both fault and no-fault property settlement states, with the estimated coefficient larger in the latter case, yet we cannot reject that the two

²⁰ Gray (1998), p. 630.

coefficients are the same. There is no discernable effect on specialization stemming from the adoption of no-fault property division laws.

The fourth column looks at the impact of unilateral divorce and property division laws on fertility. Panel A shows a decrease in fertility stemming from the adoption of unilateral divorce laws under all three of the property reform laws. However, while the effect in equitable division and community property laws are statistically significant and of similar magnitude, the effect in common law states is insignificant. Turning to Panel B, we see that unilateral divorce leads to a decrease in fertility under both fault and no-fault property settlement. In the latter case the coefficient is not significant, but the two coefficients are jointly significant and not statistically significantly different from one another. Again, we see no discernable effect stemming from the adoption of no-fault property division laws.

Finally, the fifth column examines home ownership. Here we see a statistically significant increase in the likelihood of purchasing a home following unilateral divorce in community property and equitable division states and a decrease in the likelihood of home ownership in common law states that adopt unilateral divorce. In addition to the caveat about the identification strategy in Panel A, it is worth noting that only one of the common law property division states removed fault as a consideration in property settlements. The results in Panel B show no effect of the adoption of unilateral divorce laws on home ownership, but a statistically significant increase in home ownership rates of 3 percentage points in states that removed fault as a consideration for property division. In sum, home ownership rates appear to be affected by the laws governing property division and the effect of unilateral divorce on home ownership is quite sensitive to the underlying laws governing property division.

²¹ These results differ from those found in Gray (1998) for all married women. Stevenson (2006) demonstrates that the results in Gray (1998) are sensitive to controlling for the number of years married.

5. Conclusion

By changing the rules governing the end of a marriage, divorce laws have the potential to affect many aspects of married life. Previous research has demonstrated an effect of unilateral divorce on marriage and divorce rates, household bargaining, and the adult outcomes for children raised in unilateral divorce states. This paper contributes to that literature by demonstrating how divorce law changes behavior in the early years of marriage.

People invest in their marriages to the extent that they expect them to stay intact, or the extent to which their partners can credibly commit to sharing the fruits of such investments. Weakening the marriage contract by making it easier for someone to exit the marriage changes the incentive to invest the marriage. Furthermore, changing the bargaining relationship has the potential to impact both how much and which investments occurs.

Investment in marriage-specific capital appears to be affected by the legal regime governing the right to divorce. The empirical evidence demonstrates that a switch to unilateral divorce reduces couples' willingness to make substantial investments early in their marriage. Couples are less likely to have children in the first two years, are less likely to support each other sequentially through school, and are more likely to have two full-time workers in the labor force and greater female labor force participation. Some of these investments may simply be being postponed, while others may never be made. Furthermore, these results are largely invariant to the laws governing property division. The exception is home ownership where the removal of fault in property settlements appears to encourage home ownership in the early years of a marriage.

References

Becker, Gary S. (1974) "On the Relevance of the New Economics of the Family", American Economic Review.

Becker, Gary S. (1981) A Treatise on the Family, Harvard University Press: Cambridge.

Becker, Gary S., Elizabeth M. Landes, and Robert T. Michael (1977) "An Economic Analysis of Marital Instability" *Journal of Political Economy*, 85 (6).

Brinig, M. and F. Buckley (1998) "Joint Custody: Bonding and Monitoring Theories", Indiana Law Journal 73.

Chiappori, Pierre-Andre, Bernard Fortin and Guy Lacroix (2002) "Marriage Market, Divorce Legislation and Household Labor Supply", *Journal of Political Economy*.

Ellman, Ira M. and Sharon L. Lohr (1998) Dissolving the Relationship Between Divorce Laws and Divorce Rates", *International Review of Law and Economics* 18.

Friedberg, Leora (1998) "Did Unilateral Divorce Raise Divorce Rates? Evidence From Panel Data", *American Economic Review*, 83(3).

Gray, Jeffrey S. (1998) "Divorce-Law Changes, Household Bargaining, and Married Women's Labor Supply", *American Economic Review*, 88(3)

Gruber, Jonathan (2004) "Is Making Divorce Easier Bad for Children? The Long Run Implications of Unilateral Divorce", *Journal of Labor Economics*, 22(4).

Parkman, Allen (1992) "Unilateral Divorce and the Labor-Force Participation rate of Married Women, Revisited" *American Economic Review*, 82(3).

Peters, H. Elizabeth (1986) "Marriage and Divorce: Informational Constraints and Private Contracting", *American Economic Review*, 76(3).

Pollak, Robert A and Shelley Lundberg (1994) "Separate Spheres Bargaining and the Marriage Market", *Journal of Political Economy*, 101(6).

Rasul, Imran (2006) "Marriage Markets and Divorce Laws", *Journal of Law, Economics, and Organization*, 22(1).

Ruggles, Steven and Matthew Sobek et. al. *Integrated Public Use Microdata Series: Version 2.0* Minneapolis: Historical Census Projects, University of Minnesota, 1997.

Stevenson, Betsey and Justin Wolfers (2006) "Til Death Do Us Part: The Effects of Divorce Laws on Suicide, Domestic Violence and Intimate Homicide", *Quarterly Journal of Economics*, forthcoming.

Stevenson, Betsey (2006) "Divorce-Law Changes, Household Bargaining, and Married Women's Labor Supply Revisited", *mimeo* Wharton.

Weitzman, Lenore (1985) The Divorce Revolution New York: Free Press.

Wolfers, Justin (2006) "Did Unilateral Divorce Raise Divorce Rates? A Reconciliation and New Results", *American Economic Review*, forthcoming.

Table 1: Year of Introduction of Divorce Laws by State¹

	Unilateral	Property Settlement Law	No-fault Property Division		Unilateral	Property Settlement Law	No-fault Property Division
Alabama	1971	Common law		Montana	1973	Common law ²	1975
Alaska	1935	Equitable distribution	1974	Nebraska	1972	Equitable distribution	1972
Arizona	1973	Community Property	1973	Nevada	1967	Community Property	1973
Arkansas		Equitable distribution	1979	New Hampshire	1971	Equitable distribution	
California	1970	Community Property	1970	New Jersey		Equitable distribution	1980
Colorado	1972	Equitable distribution	1971	New Mexico	1933	Community Property	1976
Connecticut	1973	Equitable distribution		New York		Common law	
Delaware	1968	Equitable distribution	1974	North Carolina		Common law	
DC		Equitable distribution		North Dakota	1971	Equitable distribution	
Florida	1971	Common law	1986	Ohio		Common law	
Georgia	1973	Common law		Oklahoma	1953	Equitable distribution	1975
Hawaii	1972	Equitable distribution	1960	Oregon	1971	Equitable distribution	1971
Idaho	1971	Community Property	1990	Pennsylvania		Common law	
Illinois		Equitable distribution	1977	Rhode Island	1975	Common law	
Indiana	1973	Equitable distribution	1973	South Carolina		Common law	
Iowa	1970	Equitable distribution	1972	South Dakota	1985	Equitable distribution	
Kansas	1969	Equitable distribution	1990	Tennessee		Common law	
Kentucky	1972	Equitable distribution		Texas	1970	Community Property	
Louisiana		Community Property		Utah	1987	Equitable distribution	1987
Maine	1973	Equitable distribution	1985	Vermont		Equitable distribution	
Maryland		Common law		Virginia		Common law	
Massachusetts	1975	Common law ³		Washington	1973	Community Property	1973
Michigan	1972	Equitable distribution		West Virginia		Common law	
Minnesota	1974	Equitable distribution	1974	Wisconsin	1978	Equitable distribution	1977
Mississippi		Common law		Wyoming	1977	Equitable distribution	
Missouri		Common law ⁴					

¹ Source: Property division types are from Gray (1998). Year of unilateral divorce is from Gruber (2004). Year of no-fault divorce is from Ellman & Lohr (1998).

² Changed to equitable division in 1976.

³ Changed to equitable division in 1974.

⁴ Changed to equitable division in 1974.

Table 2
Divorce Laws Impact on Marital Investments of Newlyweds

Dependent Variable	Mean	(1)	(2)	(3)	(4)
Student Spouse Supported (working, student couple)	10%	013***	011*** (002)	011***	009*** (002)
Both Employed Full-Time	25%	(.003) .017***	(.003) .022***	(.003) .022***	(.003) .020***
		(.007)	(.007)	(.007)	(.007)
Wife Employed	52%	.015**	.025***	.028***	.024***
		(.006)	(.007)	(.007)	(.007)
Have Child(ren)	31%	008	017**	019**	024***
0. 11	210/	(.008)	(.008)	(.008)	(.009)
Own Home	31%	.007 (.007)	.010	.010	.002 (.008)
		(.007)	(800.)	(.008)	(.008)
Controls					
State, year, gender, years of		X	X	X	X
marriage Demographic controls by sex			X	X	X
(race, ethnicity, age,					
education ¹), metro status				X	X
Spouses demographic controls (age, education, race				Λ	Λ
by sex)					
No-fault property division					X
Type of property division law					X
(equitable division, common law, community property)					
*** ** 1 * 1		1.1 C	1 .10/ .50/	1.100/ 1	

^{***, **,} and * indicate statistically discernible from zero at the 1%, 5% and 10% levels, respectively. Source: 1970 and 1980 Censuses of Population, IPUMS, (Ruggles and Sobek 1997).

Notes: Probit regressions, evaluated at the cell mean, involve 329,952 observations and standard errors are clustered at the level of state*year of census cells. Sample includes individuals and their spouses for whom both spouses are in their first marriage and both are at least 18 years old. Race includes a dummy variables for black and asian. Ethnicity is a dummy variable for Hispanic. Age is a saturated set of dummy variables for 9 age categories. Education includes dummy variables for high school graduate, some college, and college. Metro status is a saturated set of dummy variables.

¹ Education is not controlled for in the regressions estimating the effect of unilateral divorce on spousal support of education.

Table 3
Divorce and Property Division Laws Impact on Marital Investments of Newlyweds

	Student Spouse	Both Employed	Wife Employed	Have Child(ren)	Own Home
Panel A	Supported	Full-Time		(1011)	
Unilateral divorce*equitable division	019*** (.004)	.014* (.008)	.021*** (.008)	022** (.010)	.018** (.008)
Unilateral divorce*common law	.010* (.006)	.016 [*] (.009)	.030*** (.006)	007 (.016)	046*** (.013)
Unilateral divorce*community	008* (.005)	.035*** (.012)	.032*** (.010)	018** (.009)	.026*** (.009)
R-squared	.018	.045	.080	.152	.078
Panel B					
Unilateral divorce without no-fault property division	008* (.004)	.017** (.008)	.023*** (.007)	027*** (.010)	001 (.009)
Unilateral divorce with no-fault property division	013** (.006)	.034*** (.010)	.038*** (.014)	014 (.014)	.013 (.009)
No-fault property division	006 (.004)	002 (.010)	001 (.015)	.013 (.015)	.029*** (.009)
R-squared	.018	.045	.080	.152	.078

^{***, **,} and * indicate statistically discernible from zero at the 1%, 5% and 10% levels, respectively. Source: 1970 and 1980 Censuses of Population, IPUMS, (Ruggles and Sobek 1997). Notes: Regressions involve 329,952 observations and standard errors are clustered at the level of state*year of census cells. Individuals and their spouses include marriages in which both spouses are in their first marriage and both are at least 18 years old. All regressions control for state and year fixed effects, a saturated set of dummy variables for the race, ethnicity, and age, by sex, of both the individual and their spouse, and metro status. Education dummy variables for high school graduate, some college, and college are included in the regressions for both employed full-time, wife-employed, children, and home

ownership. .