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DIVORCE, FERTILITY AND THE SHOT GUN MARRIAGE

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ABSTRACT

Total fertility declined in states that introduced unilateral divorce, which makes dissolution of marriage easier. Also the ratio of out-of-wedlock fertility over total declined. We suggest an explanation (and provide supportive evidence for it) based upon the effect of divorce laws on the probability of entering and exiting marriage. Women planning to have children marry more easily with an easier "exit option" from marriage. Thus, more children are born in the first years of marriage, while the total marital fertility does not change, probably as a result of an increase in divorces and marital instability.

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1. Introduction

The introduction of "no-fault" divorce has been one of the most significant changes in the structure of the American families of the last thirty years. Unilateral "no fault" divorce laws allowed one spouse to obtain dissolution of marriage without the consent of the other: divorce became much easier. The effect of this change in the law has been widely studied with reference to the frequency of divorce and marriage rates. But not much is known on its effect on fertility: after all, marriage and divorce must have some effects on the number of children.

This is what we find. We first look at the effect of unilateral divorce laws on total fertility, uncovering a significant and large negative effect on fertility rates. The lower propensity to invest in children could be caused by marital instability (Becker, 1981; Becker, Landes and Michael, 1977). But we find not only that total fertility rates go down, but also that the rate of out-of-wedlock fertility over the total declines significantly. In-wedlock fertility, on the contrary, remains roughly constant.

Our explanation is as follows. Imagine an unmarried woman contemplating child bearing (or in the extreme case already pregnant). Without unilateral divorce, marriage becomes an irreversible investment; couples are "locked in". With unilateral divorce the cost of being in the "wrong" marriage is lower because the exit option is easier. So a woman contemplating parenthood may choose to enter marriage more easily with unilateral laws; as a result out-of-wedlock fertility goes down. Obviously this does not imply that couples stay married longer on average with unilateral divorce; on the contrary, some of these matches may be indeed "wrong" and end up in divorce.

We present some supportive evidence for this story. First the number of never married women goes down with unilateral divorce. Second, people marry more frequently. Third, fertility rates for newly wedded couples (in the first two years of marriage) go up with the adoption of unilateral laws; in a sense this includes a sort of "shot gun marriage effect": with easier divorce, the incentive to fight the shot gun is lower. Note that if the reduction of out-of-wedlock fertility is due to a change in marriage status induced by the changes in the divorce laws, the fertility of those who did not change their marriage status must go down. In other words, if the only effect of the divorce laws was to "re-label" births from out to into wedlock, total fertility should be

constant. Given that it goes down, we uncover both a selection effect into marriage and a decline of fertility due to marital instability.

We are of course not the first to analyze empirically the effect of divorce laws. Many authors have studied the effects of these laws on divorce rates (Peters, 1986 and 1992; Allen, 1992; Friedberg, 1998; Wolfers, 2006), marriage (Rasul, 2004), children outcome (Gruber, 2004; Johnson and Mazingo, 2000), labor supply (Chiappori, Fortin and Lacroix, 2002) and general well-being of the couple (Stevenson and Wolfers (2005) and Dee (1999)), with mixed results[2].

The available evidence on divorce laws and fertility is instead scant and here lies the contribution of this paper.[3] We use the legislative history of divorce liberalization across states in the US to identify the effects of this reform on fertility rates. Using births data from the Natality Files of the Vital Statistics of the US between the years 1968-1999, we fully exploit cross state and year variation in the timing of adoption of unilateral divorce to identify the causal effect of a change in divorce laws on fertility rates.

The paper is organized as follows. After a brief overview of the legislative history of divorce laws in the USA, section two analyzes the relationship between fertility and divorce laws, section three sets up the empirical methodology. Section four contains the main results and specification checks, sections five and six investigate more in details the mechanisms underlying our results on fertility and section seven concludes.

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[2] The impact of unilateral divorce legislations on divorce rates remains an open question. Peters (1986, 1992), using a cross-section of data on women, finds no effect. Allen (1992) and Friedberg (1998) obtain the opposite result using an alternative model specification and panel data recording all the divorces by state and year respectively, while Wolfers (2006) finds only a small long run effect of unilateral divorce regulations. In a different line of research, Dee (1999) and Stevenson and Wolfers (2005) examine the impact of unilateral divorce on spousal murders, self-reported domestic violence and suicide, with opposite results. Using a different empirical strategy, both Gruber (2004) and Johnson and Mazingo (2000) find that exposure to unilateral divorce as a youth appears to worsen adult outcomes such as education, labor force participation and family income. Finally Chiappori, Fortin and Lacroix (2002) analyze the impact of divorce laws on labor supply, finding substantial evidence of a change in bargaining associated with a change in the laws.

[3] Some papers have been looking at the impact on childbearing for women exposed to unilateral divorce as a youth. Gruber (2004) and Johnson and Mazingo (2000) both found a rise in the number of children. We do not focus on this paper on the exposure to unilateral divorce as a youth, but on current unilateral divorce regime. Focusing on women resident on states that introduced unilateral divorce, Peters finds no impact of a change in the law on fertility; her result is probably driven by data limitation. She compares only one pre-unilateral divorce and one post-unilateral divorce year of treatment.

2 Divorce Laws and Fertility

Between 1968 and 1977 the majority of the states in the US began to enact several legal reforms that simplified legal difficulties in obtaining a divorce. At first, married couples could divorce only with mutual consent. Immediately after, or contemporaneously, unilateral divorce statutes made it possible for one spouse to obtain a divorce without the consent of the other[4]. Table 1 summarizes the changes in the law in all US states.

There has not been systematic evidence on the impact of divorce laws on fertility. Let's begin with marital fertility. One view holds that children constitute "marital capital" (Becker, Landes and Michael, 1977.) By reducing the value of marriage, due to a higher probability of divorce, unilateral divorce law should imply lower fertility. Bargaining models (Brinig and Crafton, 1994, Mc Elroy and Horney, 1981, and Lundberg and Pollak, 1996) also imply a reduction in fertility: family decisions are made in strategic ways that depend on the enforceability of the contract and the outside opportunities of each partner. With unilateral divorce outside options become more relevant since the contract is now not-enforceable. The spouse with outside option has a better bargaining position and is able to obtain a larger share of the couple's joint production. For that reason the other spouse will prefer to invest in market activities or in human capital at the expense of marriage specific investments, including children.

Note that all these models predict a decline in marital fertility, assuming implicitly that the incentives for unmarried people remained unchanged. However, a change in divorce law could imply a change in the composition of individuals in the marginal marriage through a selection into and out of marriage. In this regard, there are potentially two effects: If the cost of exiting a bad marriage goes down one may choose to enter marriage more easily. On the other hand, if marriage is so easily broken, i.e. the value of commitment is diluted, why marry to begin with?

The existence of selection has important predictions for out-of-wedlock fertility. On the one hand, reduction in the cost of exiting marriage will make more people "attempt" a marriage match, especially those who plan parenting. Some of those who previously had children out-of-

[4] This paper focuses on unilateral divorce. We do not consider any issue related to the division of property; unilateral divorce was usually accompanied by an equal division of property, but not the other way around.

wedlock may now choose to marry, implying a reduction in out-of-wedlock fertility. On the other hand if the value of marriage goes down, people could decide to marry less and, therefore, have children out-of-wedlock. We will show below that the first effect dominates[5].

3 Data and Econometric Specification

3.1. Data

We use the births certificates of the *National Vital Statistics of the USA* to calculate different measures of fertility. The births certificates data contains individual records on every birth that took place in the United States between 1968 and 1999 to mothers ages 10 and older. Prior to 1968 micro data on birth certificates are not publicly available. Birth certificates contain information on mother's characteristic including age, race, marital status and education. We aggregate these data into cells defined by state of residence of the mother, race and age, to construct state level panel data of total fertility rates and the ratio of births-out-of-wedlock to total births and marital-non marital fertility from 1968 to 1999. The total fertility rate (TFR) is the standard way of measuring fertility. It estimates the number of children a cohort of 1,000 women would bear if they all went through their childbearing years exposed to the age-specific birth rates in effect for a particular time. The TFR is calculated using the methodology applied by the National Center for Health Statistics (described in the appendix). We construct state-year cells containing the average number of children for women in all their childbearing period. The fraction of births out-of-wedlock is defined as the ratio of out-of-wedlock births over total births[6].

[5] In addition one can think of indirect effects due to variations of the quality of matches. On the one hand, a higher number of marriages will increase the probability of finding a better match, on the other hand people might be less careful in looking for a partner due to the lower cost of breaking up. There is conflicting empirical evidence on this effect. Choo and Siow (2003) measure the gains to marriage over time, using the frequency of matches across different types of market participant and find a substantial decline from 1970 to 1980. Weiss and Willis (1997) and Mechoulan (2003) using the National Study of the High School Class of 1972 and the CPS respectively find evidence of better matches associated with the introduction of unilateral divorce.

[6] Some states did not report the information on legitimacy status prior to 1979, (See Appendix 1 for details)

We obtain population estimates and age and race composition from the Bureau of the Census for the period 1968-1999. We use the March round of the Current Population Survey (CPS) to construct the labor market and education variables at the state level[7]. Since the micro data on birth certificates are available only from 1968, we complement our analysis using four decades of Census from 1960 to 1990, to confirm that our results can be distinguished from pre-existing trends in fertility.

We also construct a comprehensive series of administrative data for marriages in the US from 1956 to 1995. Our data comes from the marriage certificates of the United States for the period 1968-1995 (marriage certificates data covers roughly 44 states depending on the specific year, see Appendix for more details), moreover we complement the dataset with manually-entered data from the annual editions of the Vital Statistics for 1956-1967 and for those states not covered in the marriage certificates dataset. The count of administrative data is used to construct crude marriage rates- the number of marriages per 1000 of the population[8]. Finally, we use the Census 1980 5% State sample[9] to study the fertility history of women in their first two years of marriage.

3.2. Econometric Specification

We consider the following panel data regression of the log of the total fertility rate in state *s* at time *t*, $\log(f_{st})$, for the period 1968-1999:

$$\log(f_{st}) = \beta U_{st} + \chi_s + \gamma_t + \lambda X_{st} + \eta_s(\delta_s \cdot t) + \varepsilon_{st} \quad (1)$$

where U_{st} is a dummy equal to one if state *s* has a unilateral divorce regime starting from year *t*, χ_s and γ_t refer to state and year fixed effects, X_{st} is a set of controls and $\delta_s \cdot t$ represents state specific trends, where *t* is a year trend.

Prior to 1967, divorce required mutual consent in almost all the states in the US. Between 1967 and 1987 almost two thirds of the states introduced unilateral divorce. Hence the causal effect of unilateral divorce in our specification is identified from variation across states,

[7] Descriptive statistics for adopting and non-adopting states are reported in the appendix (Table A3)
[8] Data on the state population for the period 1956-1998 is obtained by Wolfers (2006)
[9] The 1980 5% State sample covers approximately 11,337,000 person records. Data can be downloaded from www.ipums.org.

time and between adopting and non-adopting states. The impact of a change in divorce law is captured by the coefficient β, which represents the change in fertility rate attributable to the legal change.

Table I reports the year in which these laws were passed by state. We follow Gruber (2004) who codes divorce as unilateral when it requires the consent of only one spouse and is granted on grounds of irreconcilable differences. Since there is some debate in the literature about this coding and how classify a state's divorce law, as well as the timing of the laws, we have tested our results with different available coding. Our results are robust. We consider two specifications. In the first, we include state and year fixed effects, but ignore state-specific trends ($\delta_s = 0$), in the second we include state-specific trends.

Endogeneity is not our main concern. We can safely argue that fertility decisions do not affect the probability that a state passes a unilateral divorce law. Also influencing fertility trends did not seem a policy objective of the state legislatures. The more serious potential problem is the effect of coincident underlying social trends or omitted factors that have differential effects in adopting and non-adopting states. We do our best below to address this issue in a variety of ways.

4 Results

4.1 Basic results

Table II (columns 1a and 1b) shows that with and without state-specific trends, a change in divorce laws is associated with a significant decline in the fertility rates in adopting states. The effects are significant at the 1 percent level and imply a decline in fertility of the order of 3 percentage points.

We begin to control for potential omitted factors by adding additional state and time varying covariates, including the log of the per capita state income (in 1999 dollars) and the unemployment rate.[10] The absolute value of the coefficient of interest actually increases and remains highly significant (Columns 2a and 2b). In Columns 3a and 3b, we control for race and

[10] See Dehejia and Lleras-Muney (2004) on the relationship between unemployment and fertility.

age composition of the state. The effect of unilateral divorce on fertility remains negative and significant at the 1% level.

An important candidate responsible for the decline in fertility in adopting states could be the increase in female labor participation and education. While these are important determinants of fertility rates, their inclusion in the regression does not alter our estimates of the effects of the divorce law (Table II columns 4a, and 4b.)[11] In fact, the estimated impact of unilateral divorce gets larger (more negative) relative to the baseline specification.[12]

Divorce laws were changed close to the time of legalization of abortion which of course could have an effect on fertility.[13] In fact, Levine et al. (1996) find a reduction in fertility due to the legalization of abortion; interestingly Akerlof et al. (1996) find an increase in out-of-wedlock fertility caused by the disappearance of the "shot-gun-marriage"; Lott et al. (2006) find similar results. When we include a dummy for the introduction of abortion, we find that, at least with the specification without state specific trends, abortion liberalization has been associated with a 5% decline in fertility (columns 5a, b). Taking abortion into account does not reduce either the significance or the magnitude of the impact of divorce laws on fertility. We also run a regression including age and race composition, labor market status and education as controls and the results remained unchanged; all these results are available.

4.2 Robustness

Next we check whether the change in fertility followed the change in divorce regime and not the opposite. Perhaps states adopting unilateral divorce legislation could be the one whose electorate has stronger preferences for marital dissolution. We include lead dummies to our regression for whether unilateral divorce will be introduced in 2 to 3 years, or 4 or more years (the omitted category is the year before introduction). The estimated coefficients on the lead

[11] Table A3 in Appendix also shows that there is not much difference in education, labor force status and other demographic characteristics in adopting and non-adopting states before and after 1972, which is the median year of the adoption of the unilateral law.

[12] We construct our controls at the state level using the March CPS data. For that reason, the sample size is smaller because fewer states are identified between 1968 and 1979 in the CPS.

[13] Abortion was legalized in five states in the US in 1970 (Alaska, California, Hawaii, New York and Washington). Following the 1973 Supreme Court decision in Roe v. Wade, abortion became legal in all states

dummies (reported in Table III, columns 1a and 1b) are very small and not significant, indicating that secular pre-trends are not responsible for the decline in fertility in adopting states. The unilateral divorce dummy remains significant at the 1% level and with a coefficient of similar magnitude.

There is also anecdotal evidence supporting the fact that the liberality of the States does not imply a higher marital dissolution. A story in the New York Times (based on an Associate Press report) highlights that the highest divorce rates are in the Bible Belt: "the divorce rates in these conservative states are roughly 50 percent above the national average of 4.2 per thousand people." The 10 Southern states with some of the highest divorce rates were Alabama, Arkansas, Arizona, Florida, Georgia, Mississippi, North Carolina, Oklahoma, South Carolina, and Texas. By comparison nine states in the Northeast were among those with the lowest divorce rates: Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. [14]

In our period of analysis fertility rates declined all over the US. One possibility is that adopting states started from a higher level of fertility and that what we capture is a convergence to the mean. We control for this possibility in two ways. In Table III, columns 2a, b control for fertility levels in 1968 interacted with a linear time trend; whereas columns 3a, b use the interaction between the fertility level in 1968 and time fixed effects. The effect of a change in divorce law remains negative and significant at the 1% level.

We also restricted our sample to only adopting states and using alternative law coding for unilateral divorce (Tables IV and V). We find that estimating only the variation due to the different timing of reform is sufficient to identify the impact of divorce law on fertility. Thus the effect of unilateral divorce on fertility rates is not determined only by differences across adopting and non-adopting states, which could be due, despite our attempts to control for omitted variables, to other factors different than unilateral divorce. When we replicate our analysis with the alternative law coding by Friedberg (1998) and Johnson and Mazingo (2000) we again find that the impact of divorce law is significant at the 1% level[15].

[14] "Bible Belt Couples 'Put Asunder' More, Despite New Efforts", *The New York Times*, May 21st, 2001.
[15] The magnitude of the results is a bit lower if we follow Friedberg classification (Table V).

Finally we run OLS giving equal weights to each reform state; we control for the role of migration using population as a control (it could be that people who have preferences for lower fertility are concentrated in the most liberal states because of selective migration resulting from the introduction of unilateral divorce legislations), we finally run a specification using state specific quadratic trends. Our specification survives all these robustness checks which are available upon request.

4.3. Dynamics

In our analysis we use a unilateral dummy to capture the total impact of divorce laws on fertility. Wolfers (2006) however argues that this simple dummy may not fully account for pre existing trends and post law trends. We follow his strategy by imposing a more flexible structure in our specification, consisting of a series of dummy variables, for the first two years of the new law, for years three and four and so on. Thus we estimate the following regression:

$$\log(f_{st}) = \sum_j \beta_j U_{st}^j + \delta_s + \gamma_t + \lambda X_{st} + \eta_s(\delta_s \cdot t) + \varepsilon_{st} \qquad (2)$$

where U_{st}^j consists of a series of dummy variables equal to one for the first two years of adoption, 3-4 years of adoption, 5-6 years and so on. Table VI shows a large and significant reduction in fertility rates following the introduction of divorce. The effect is constant over time and does not disappear until 15 years after the introduction of divorce. While the effect without state specific trends is much higher (in the range of a 4% reduction) with state-specific trends the results are lower in the first two years and consistent with the magnitude found with the unilateral divorce dummy after 3 years.

Another problem outlined by Wolfers (2006) is that if there are only few observations before the policy change, those observations are not sufficient to identify pre-existing state trends. There are no micro data available to extend our analysis starting from the beginning of the 1960. We solved this problem by using four decades of Census data (from 1960 to 1990) to check that our results are not biased by the lack of a sufficiently long pre-trend. We run a specification collapsing state-year-age cells using as a dependent variable the number of children

ever born to women age 15-44 residents in those states that adopted unilateral divorce.[16] We run the Census regressions with and without state-specific trends; we include state-specific trends for consistency with our previous regressions, however with census data the inclusion of state-specific trends is not a perfect solution since there are only four underlying time series observations (those trends are much better captured using the yearly panel data on fertility we constructed using the Vital Statistics). We run the following regression[17]:

$$fertility_{a,s,t} = \beta U_{st} + \phi race_{a,s,t} + \varphi_a + \chi_s + \gamma_t + \mu\varphi_a\gamma_t + (\delta_s \cdot t) + \varepsilon_{a,s,t} \qquad (3)$$

where all the variables are defined as before, race represents the percentage of black and white in the age-state-year cells, φ_a and $\varphi_a\gamma_t$ are age dummies and age year interactions to control for differential time patterns by age. Since the unilateral divorce dummy varies only by state and year, we control for clustering on state of residence*year. The coefficient of unilateral divorce dummy, with and without the inclusion of state specific trends is still significant at the 5% level, with an elasticity of 3.5% (a regression with fertility using the vital statistics implies an elasticity of 3.6% for the period 1968-1999 – Table VII)

4.4. Results by Race

There are significant differences in the pattern of fertility and marriage between Black and White women (see Neal, 2002). Table VIII shows the results by race, following the standard specifications. Fertility declines significantly up to 7% for white mothers with the introduction of unilateral divorce, but it does not affect black mothers.

The fact that fertility is more responsive to changes in divorce laws for Whites than for Blacks suggests that divorce laws could lead to a greater selectivity in fertility decisions among Whites. Given that Blacks have lower marriage rates to begin with, these results indicate that the main difference between Blacks and Whites could be driven by marriage selection, rather than by other factors a priori equally important in fertility decisions. We will explore the impact of selection into marriage on fertility decisions in Section 6.

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[16] Our specification follows Gruber (2004) but we concentrate on women residents in states that introduced unilateral divorce laws and not to women exposed to unilateral divorce as a youth.

[17] We use fertility rather than log fertility because in the Census data fertility is measured as number of children ever born to a woman (zero is then a possible outcome).

5 In and out of wedlock fertility

We start with the impact of divorce laws on the out-of-wedlock fertility (the ratio of illegitimate births over total births).[18] Table IX (columns 1a and 1b) shows a significant decline in the out-of-wedlock ratio following the adoption of unilateral divorce, with column 1a suggesting an elasticity of the order of 6%. Columns 2a and 2b show that this estimate is robust to adding a rich set of controls.

Note that the left hand side of the regressions of Table IX is defined as out-of-wedlock births over total births, i.e. out-of-wedlock plus marital births. This ratio could go down if out-of-wedlock births go down or marital births go up. In order to address this issue we split our sample between marital births over the population of women in the age group 15-44 and out-of-wedlock births over the population of women in the age group 15-44[19].

The impact of unilateral divorce laws on the out-of-wedlock rate is always significant at the 1% level, with or without the inclusion of state-specific trends and controls, whereas the impact on the marital rate is always insignificant (Table X).

6. Choosing marriage to have children

This is our story to explain the evidence above. When divorce becomes easier, attempting marriage is less costly. So women contemplating child bearing (or even already pregnant) choose to marry to avoid out-of-wedlock fertility, knowing that an unsuccessful marriage can be more easily broken. As a result, we would expect a lower number of never married women and a higher number of marriages at any point in time. This is consistent with the idea that women try marriage more easily with easier divorce. Moreover, fertility rates for

[18] Note that the number of observations for the out-of-wedlock regression is lower than the fertility regression, since marital status is missing for some states and years (Table A1 in the Appendix documents the availability of this information for each state and year).

[19] We also run regressions for marital and non-marital fertility (defined as the number of marital births and out-of-wedlock births divided by the population of married and non-married women). State-year level measures of the number of single and married people aged 15-44 are constructed from March CPS data. These measures are available from 1968 to 1999, but only the 12 largest states are covered during the 1970s; this has the drawback of reducing the precision of the previous specification, but the results are unchanged.

newly married women should go up. In this section we provide supportive evidence for our interpretation.

To study the change in the number of never married women we use data from the March supplement of the Current Population Survey from 1962-1999. We construct state-year cells containing the fraction of never married women for the age group 15-49. We regress these cell means on a dummy indicating the presence of unilateral divorce, age and race composition of the states, state and year effects. We also run a specification including education and labor market status as controls. The results show that the number of never married women declines with the introduction of unilateral divorce. Our estimates imply an elasticity of around 4%. The results are robust to the inclusion of a full set of controls; however with the inclusion of state-specific trends the coefficient remains negative but not significant. This is consistent with the view that with easier divorce fewer women are never married. (Table XI)

In addition, we would expect an increase in the number of marriages per person at every point in time. In order to test this hypothesis, we collect a unique series on the total number of marriages from 1956 to 1995 which we have described in section 3. We define marriage rate as the number of marriages for 1,000 population. We run two panel regressions, one with a dummy for unilateral divorce, the other with dummies for number of years after the adoption. The results of Table XII show that the introduction of unilateral divorce significantly increases the marriage rate (columns 1a, 1b); the dynamic response of marriage to a change in law seems to appear about four years after the passage of the law. An increase in marriage rates as a result of the introduction of unilateral divorce is a quite new result. The other existing paper on this issue (Rasul, 2004) reports a decline in the number of marriages as a result of unilateral divorce. Rasul (2004) uses the marriage certificates of the Vital Statistics for the period 1968-1995, complemented with the historical volumes of the Vital Statistics for the years 1960-1968 and 1995-2000. We use a richer series, including the seven states missed in the marriage certificates (details in the Appendix), correcting the series for California, whose number of marriages

appears substantially underestimate in the marriage certificates, adding few years of data for Colorado, Minnesota and South-Carolina and going back to 1956.[20]

If women choose marriage to have children we would expect not only a decline in out-of-wedlock fertility, but also an increase in fertility rates for just married women. To test this hypothesis we use the 5% state sample of the 1980 Census. The 1980 Census contains information on the age at first marriage and on the total number of children ever born to a woman. We can calculate the duration of marriage for women in their first marriage and see whether their fertility rates are higher in states with unilateral divorce. We regress the number of children ever born to a woman on a dummy for unilateral divorce, a quadratic for age and dummies for race in the basic specification, we then add employment status and education as controls. We concentrate on women in their first two years of marriage[21]. As it is apparent from Table XIII, fertility is significantly higher in the first two years of marriage for women living in states with unilateral divorce.[22] The Census 1980 also includes a question on the "age of youngest identified own child." We repeat the previous specification with the sample of women in their first two years of marriages with the youngest identified own child not older than two years. We find a coefficient of .236, significant at the 1% level.

7. Conclusions

This is our "story". As divorce becomes easier, people feel less locked in when they marry. So when women consider having children (or are already pregnant) they are more willing to "try" marriage. Therefore out-of-wedlock fertility declines and marriage rates go up. In more colorful terms shot gun marriages are less threatening with an easier exit option!

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[20] Rasul also defines marriage rates dividing by the population between16 and 65 while we follow the standard practice and divide by total population. Our population data are the same as those by Friedberg (1998) and Wolfers (2006). Finally, Rasul uses Friedberg coding, whereas we use Gruber's coding.

[21] We run the regression also restricting the sample to women in their first year of marriage and the results do not change

[22] There is data caveat: the Census data allow us to check whether a woman has had a child before the end of her two year of marriage; it does not allow us take out children that were born before the marriage.

If this selection effect were the only one at work total fertility should be unchanged: some births become "in wedlock" rather than "out of wedlock" as a result of the change in the law. The fact that total fertility goes down instead suggests that in addition to choose marriage to have children, women can also have lower marital fertility because of marriage instability.

The welfare implications of our results are of course very hard to evaluate. Reduction of out-of-wedlock fertility may be a social good, but society may "pay" for it with an increase in bad marriages and more divorces.

Data Appendix

Birth Certificates data were obtained from the *National Vital Statistics System of the National Center for Health Statistics*. The births certificates data contain individual records on every birth that took place in the United States between 1968 and 1999. Prior to 1968 micro data are not publicly available.

The total fertility rate (TFR) estimates the number of children a cohort of 1,000 women would bear if they all went through their childbearing years exposed to the age-specific birth rates in effect for a particular time. We calculate the total fertility rate (TFR), using the methodology applied from the National Center for Health Statistics. According to this definition the "TFR is the sum of the birth rates by age of mother (in 5-year age groups) multiplied by 5. It is an age-adjusted rate because it is based on the assumption that there is the same number of women in each age group. A total fertility rate of 2,477 in 1968 for example means that if a hypothetical group of 1,000 women were to have same birth rates in each group that were observed in acute childbearing population in 1968, they would have a total of 2,477 children by the time they reached the end of the reproductive period (taken as age 49), assuming that all of the women survive at that age" (*Vital Statistics of the United States, 1968, Volume I, Natality, Technical Appendix).*

The fraction of births out-of-wedlock is defined as the ratio of illegitimate births over total births. The legitimacy status was not reported in several states from 1968 through 1979. The states not reporting legitimacy status are indicated in Table A1.

We use the March Supplement of the *Current Population* survey from 1968 to 1999 to construct our control variables, specifically race and age composition, labor market status and educational levels for women in the age group 15-49. We also use the CPS to construct the number of married and unmarried women by age and race. In 1962 the following states are missing: Alaska, Hawaii, Idaho, Maine, Montana, Nebraska, New Hampshire, North Dakota, South Dakota, Vermont, and Wyoming. From 1968 to 1972 the following states, plus the District of Columbia, are identified: California, Connecticut, Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maryland, Missouri, New Jersey, New York, Ohio, Oregon, Pennsylvania, Tennessee, Texas and West Virginia. Between 1973 and 1976 the following states, plus the District of Columbia, are identified: California, Connecticut, Florida, Illinois, Indiana, Massachusetts, New Jersey, New York, North Carolina, Ohio, Pennsylvania and Texas. After

1976 and between 1963 and 1967 all states can be identified. All monetary variables are indexed at 1999 values.

Marriage Certificates data were obtained from the *National Vital Statistics System of the National Center for Health Statistics*. The marriage certificates data contain individual records on every marriage that took place in the United States between 1968 and 1995. The data for 1968-1995 covers around 44 states, depending on the exact year (see Table A2 for details). Marriage certificates data includes date of marriage, state of residency and occurrence, education, previous marital status, number of marriages and age of bride and groom. We calculate the number of total marriages for each state and year from the micro-data, and we complement our series by entering by hand the missing series. Specifically we have hand-entered data from the annual editions of the Vital Statistics for all the States for 1956-1967 and for the states missing from the micro-data for 1968-1995. We construct a very comprehensive series reflecting a total count of administrative data of marriages reported to the NCHS for the period 1956-1995. We then define marriage rate as the total number of marriage per 1,000 population. Data on state population from 1956 to 1995 are obtained by Wolfers[23]

[23] http://bpp.wharton.upenn.edu/jWolferss/data.shtml

Table A1. States not reporting legitimacy status, by year

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
California	X	X	X	X	X	X	X	X	X	X	X	X
Connecticut	X	X	X	X	X	X	X	X	X	X	X	X
Georgia	X	X	X	X	X	X	X	X	X	X	X	X
Idaho	X	X	X	X	X	X	X	X	X	X		
Maryland	X	X	X	X	X	X	X	X	X	X	X	X
Massachusetts	X	X	X	X	X	X	X	X	X	X		
Michigan											X	X
Montana	X	X	X	X	X	X	X	X	X	X	X	X
Nevada				X	X	X	X	X	X	X	X	X
New Mexico	X	X	X	X	X	X	X	X	X	X	X	X
New York	X	X	X	X	X	X	X	X	X	X	X	X
Ohio		X	X	X	X	X	X	X	X	X	X	X
Texas										X	X	X
Vermont	X	X	X	X	X	X	X	X	X	X		

Source: Vital Statistics of the United States

Table A2
States with marriage certificates micro-data available

State	Micro data available	State	Micro data available
Alabama	1968-1995	Montana	1968-1995
Alaska	1968-1995	Nebraska	1968-1995
Arkansas		Nevada	
Arizona		New Hampshire	1968-1995
California	1968-1995	New Jersey	1968-1995
Colorado	1979-1995	New Mexico	
Connecticut	1968-1995	New York	1968-1995
District of Columbia	1968-1995	North Carolina	1968-1995
Delaware	1968-1995	North Dakota	
Florida	1968-1995	Ohio	1968-1995
Georgia	1968-1995	Oklahoma	
Hawaii	1968-1995	Oregon	1968-1995
Idaho	1968-1995	Pennsylvania	1968-1995
Illinois	1968-1995	Rhode Island	1968-1995
Indiana	1968-1995	South Carolina	1971-1995
Iowa	1968-1995	South Dakota	1968-1995
Kansas	1968-1995	Tennessee	1968-1995
Kentucky	1968-1995	Texas	
Louisiana	1968-1995	Utah	1968-1995
Maine	1968-1995	Vermont	1968-1995
Maryland	1968-1995	Virginia	1968-1995
Massachusetts	1968-1995	Washington	
Michigan	1968-1995	West Virginia	1968-1995
Minnesota	1971-1995	Wisconsin	1968-1995
Mississippi	1968-1995	Wyoming	1968-1995
Missouri	1968-1995		

The micro data on marriage certificates data were obtained from the Vital Statistics of the United States for the period 1968-1995; data is hand-entered for the states with missing data in the period 1968-1995, and for all the states from 1956 to 1967.

TABLE A3
DESCRIPTIVE STATISTICS FOR ADOPTING AND NON-ADOPTING STATES,
WOMEN 15-44 YEARS OLD,
MEANS AND STANDARD DEVIATIONS

Adopting States

	1962-1972	1973-1999	Difference
Age	28.19	29.12	0.95
	(.7689)	(1.068)	
Single	.2551	.3388	0.0837
	(.0743)	(.0467)	
Married	.6716	.5440	-.1276
	(.0812)	(.0494)	
Separated	.0232	0.0251	0.0019
	(.0239)	(.0104)	
Divorced	.0420	.0849	0.0429
	(.0351)	(.0216)	
College and more	.2218	.4186	0.1968
	(.0620)	(.0955)	
Labor force partic.	.4280	.6382	0.2102
	(.0191)	(.0728)	
Fertility*	2.41	1.22	-1.19
	(.7269)	(.7140)	

Non-Adopting States

	1962-1972	1973-1999	Difference
Age	28.49	28.95	0.46
	(.7287)	(1.079)	
Single	.2812	.3740	0.0928
	(.0512)	(.0751)	
Married	.6563	.5086	-.1477
	(.0649)	(.0816)	
Separated	0.0248	0.0371	0.0123
	(.0198)	(.0153)	
Divorced	.0272	.0714	0.0442
	(.0151)	(.0221)	
College graduate	.1748	.3782	0.2034
	(.0504)	(.1018)	
Labor force partic.	.3915	.5966	.2051
	(.0721)	(.0824)	
Fertility*	2.15	1.18	-0.97
	(.8644)	(.7298)	

Source: CPS- March Supplement, authors' calculations; fertility has been calculated using Census data for 1960 and 1990, respectively

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TABLE I
DIVORCE REGULATIONS ACROSS THE STATES

State	Unilateral Date	State	Unilateral Date
Alabama	1971	Montana	1973
Alaska	1935	Nebraska	1972
Arkansas		Nevada	1967
Arizona	1973	New Hampshire	1971
California	1970	New Jersey	
Colorado	1972	New Mexico	1933
Connecticut	1973	New York	
District of Columbia		North Carolina	
Delaware	1968	North Dakota	1971
Florida	1971	Ohio	
Georgia	1973	Oklahoma	1953
Hawaii	1972	Oregon	1971
Idaho	1971	Pennsylvania	
Illinois		Rhode Island	1975
Indiana	1973	South Carolina	
Iowa	1970	South Dakota	1985
Kansas	1969	Tennessee	
Kentucky	1972	Texas	1970
Louisiana		Utah	1987
Maine	1973	Vermont	
Maryland		Virginia	
Massachusetts	1975	Washington	1973
Michigan	1972	West Virginia	
Minnesota	1974	Wisconsin	1978
Mississippi		Wyoming	1977
Missouri			

Source: Gruber, 2004

TABLE II
THE IMPACT OF UNILATERAL DIVORCE ON THE TOTAL FERTILITY RATE
DEPENDENT VARIABLE: LOG (TOTAL FERTILITY RATE)

Specification	(1a)	(1b)	(2a)	(2b)	(3a)	(3b)	(4a)	(4b)	(5a)	(5b)
Unilateral Divorce	-.0307***	-.0269***	-.0350***	-.0279***	-.0282**	-.0348***	-.0248***	-.0335***	-.0332***	-.0248***
	(.0106)	(.0054)	(.0111)	(.0053)	(.0102)	(.0071)	(.0107)	(.0073)	(.0109)	(.0053)
Legalized Abortion									-.0516*	.0102
									(.0318)	(.0087)
Education and Empl. Status										
Up to 12 years of schooling							-.0107	-.0962		
							(.0853)	(.0704)		
Some college							-.1842**	-.2475***		
							(.0984)	(.0901)		
Fraction Employed							-.3493***	-.0128		
							(.0665)	(.0521)		
Fraction Unemployed							-.7061***	-.3286***		
							(.1405)	(.1159)		
State Unemployment			-.0075***	-.0052***	-.0055***	-.0049***	-.0037***	-.0029***	-.0074***	-.0052***
			(.0016)	(0009)	(.0013)	(.0011)	(.0014)	(.0012)	(.0016)	(.009)
Log(per capita State Income)			.0337***	.0187***	.0814***	.0333***	.0749***	.0268***	.0369***	.0180
			(.0016)	(.0085)	(.0128)	(.0115)	(.0125)	(.0112)	(.0147)	(.0087)
Year Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	yes	yes	Yes
State Effects	Yes	Yes	Yes	yes	Yes	Yes	Yes	yes	yes	Yes
State-specific Trends	No	Yes	No	yes	No	Yes	No	yes	no	Yes
Age and Race Composition	No	No	No	no	Yes	Yes	Yes	No	no	No
Adjusted R^2	0.88	0.95	.88	.96	0.92	0.96	.92	.96	0.88	.96
Number of obs.	1632	1632	1632	1632	1320	1320	1320	1320	1632	1632

Panel data regression estimates, sample period 1968-1999. Estimated using state population weights. Robust standard errors in parenthesis. ***, ** and * respectively denote 1%, 5% and 10% levels. Demographic controls are the shares of the total female population in age group *a* and of race *r*, in state *s* in year *t*, where the age groups are 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, and race is white, black and other.
Source: Total fertility rates are calculated using the *Vital Statistics* of the USA. Population estimates are taken from www.census.org and demographic controls are authors' calculation from the March Supplement of the Current Population Survey. Definition of total fertility rate is in the data appendix.

TABLE III
THE IMPACT OF UNILATERAL DIVORCE ON THE TOTAL FERTILITY RATE
CONTROLLING FOR REVERSION TO THE MEAN AND PRE-TRENDS
DEPENDENT VARIABLE: LOG (TOTAL FERTILITY RATE)

Specification	(1a)	(1b)	(2a)	(2b)	(3a)	(3b)
Unilateral Divorce	-.0456***	-.0332***	-.0348***	-.0278***	-.0482***	-.0302***
	(.0185)	(.0071)	(.0110)	(.0053)	(.0116)	(.0057)
Fertility 1968 x time trend			.0781	-.0299		
			(.0812)	(.0346)		
Fertility 1968 x time dummies					yes	yes
Unilateral Divorce adopted in 2-3 years	-.0302	-.0086				
time	(.0217)	(.0070)				
Unilateral Divorce adopted in 4 or more	.0113	-.0005				
years time	(.0220)	(.0109)				
Year Effects	yes	yes	yes	Yes	yes	Yes
State Effects	yes	yes	yes	Yes	yes	Yes
State-specific trends	no	yes	no	Yes	no	Yes
Adjusted R^2	0.88	.95	0.88	.95	0.88	.96
Number of observations	1632	1632	1632	1632	1632	1632

Panel data regression estimates, sample period 1968-1999. Estimated using state population weights. Robust standard errors in parenthesis. ***, ** and * respectively denote 1%, 5% and 10% levels.
Source: Total fertility rates are calculated using the *Vital Statistics* of the USA.

TABLE IV
THE IMPACT OF UNILATERAL DIVORCE ON TOTAL FERTILITY RATE
SUB SAMPLE OF ADOPTING STATES
DEPENDENT VARIABLE: LOG (TOTAL FERTILITY RATE)

Unilateral Divorce	-.0875***	-.0193***
	(.0126)	(.0078)
Year Effects	Yes	Yes
State Effects	Yes	Yes
State-specific trends	No	Yes
Adjusted R^2	.87	.95
Number of observations	1088	1088

Panel data regression estimates, sample period 1968-1999. Estimated using state population weights. Robust standard errors in parenthesis. ***, ** and * respectively denote 1%, 5% and 10% levels. The regression includes state unemployment and log (per capita income) as controls
Source: Total fertility rates are calculated using the *Vital Statistics* of the USA.

TABLE V
THE IMPACT OF UNILATERAL DIVORCE ON THE TOTAL FERTILITY RATE
ALTERNATIVE CODING FOR UNILATERAL DIVORCE
DEPENDENT VARIABLE: LOG (TOTAL FERTILITY RATE)

	(1a)	(1b)	(2a)	(2b)
Unilateral Divorce Friedberg (1998)	-.0228*** (.0078)	-.0145*** (.0045)		
Unilateral Divorce Johson and Mazingo (2000)			-.0186** (.0100)	-.0223*** (.0052)
Year Effects	Yes	yes	yes	Yes
State Effects	Yes	yes	yes	Yes
State-specific trends	No	yes	no	Yes
Adjusted R^2	.88		.88	
Number of observations	1632	1632	1632	1632

Panel data regression estimates, sample period 1968-1999. Estimated using state population weights. Robust standard errors in parenthesis. ***, ** and * respectively denote 1%, 5% and 10% levels.
Source: Total fertility rates are calculated using the *Vital Statistics* of the USA.

TABLE VI
THE IMPACT OF UNILATERAL DIVORCE ON THE TOTAL FERTILITY RATE
DYNAMICS
DEPENDENT VARIABLE: LOG (TOTAL FERTILITY RATE)

Specification	(1)	(2)
Years 1-2	-.0449***	-.0169***
	(.0166)	(.0082)
Years 3-4	-.0534***	-.0267***
	(.0164)	(.0076)
Years 5-6	-.0547***	-.0303***
	(.0136)	(.0072)
Years 7-8	-.0467***	-.0284***
	(.0128)	(.0088)
Years 9-10	-.0457***	-.0320***
	(.0123)	(.0099)
Years 11-12	-.0373***	-.0283***
	(.0116)	(.0114)
Years 13-14	-.0279**	-.0259***
	(.0113)	(.0130)
Years 15 more	-.0117	-.0115
	(.0050)	(.0171)
Year Effects	Yes	Yes
State Effects	Yes	Yes
State Trends, Linear	No	Yes
Adjusted R^2	.89	.96
Number of observations	1632	1632

Panel data regression estimates, sample period 1968-1999. Estimated using state population weights. Robust standard errors in parenthesis. ***, ** and * respectively denote 1%, 5% and 10% levels. Regressions include state unemployment and log per capita income as controls.
Source: Total fertility rates are calculated using the *Vital Statistics* of the USA.

TABLE VII
THE IMPACT OF UNILATERAL DIVORCE ON THE TOTAL FERTILITY RATE
CENSUS DATA AND VITAL STATISTICS

	Census 1960-1990: number of children ever born to women 15-44 years old		Vital Statistics 1968-1999: Total fertility rate	
	(1a)	(1b)	(2a)	(2b)
Unilateral Divorce	-.0511***	-.0446***	-.0728***	-0.058***
	(.0165)	(.0134)	(.0228)	(.0106)
Elasticity	**3.5%**	**3%**	**3.6%**	**2.9%**
Year Effects	Yes	yes	yes	Yes
State Effects	Yes	yes	yes	Yes
State-specific trends	No	yes	no	Yes
Adjusted R^2	.98	.98	.88	.96
Number of observations	6113	6113	1632	1632

For the Census data: regressions based on IPUMS data from the 1960-1990 Censuses (1960 State 1% sample, 1970 Form one 1% state sample, 1980 and 1990 5% state sample). Women aged 15-44. All regressions control for race, state and age dummies and age*year dummy interaction and are weighted to reflect underlying micro data. Robust standard errors in parenthesis. ***, ** and * respectively denote 1%, 5% and 10% levels. Standard errors are clustered at the state*year level.
For the Vital Statistics Regressions: Panel data regression estimates, sample period 1968-1999. Estimated using state population weights. Robust standard errors in parenthesis. ***, ** and * respectively denote 1%, 5% and 10% levels. Total fertility rates are calculated using the *Vital Statistics* of the USA.

TABLE VIII
THE IMPACT OF UNILATERAL DIVORCE ON THE TOTAL FERTILITY RATE, BY RACE
DEPENDENT VARIABLE: LOG (TOTAL FERTILITY RATE)

	Whites				**Blacks**			
Specification	(1a)	(1b)	(2a)	(2b)	(1a)	(1b)	(2a)	(2b)
Unilateral Divorce	-.0690***	-.0188***	-.0782***	-.0321***	.0028	-.0140	-.0461	-.0099
	(.0118)	(.0071)	(.0134)	(.0102)	(.0175)	(.0142)	(.0317)	(.0204)
Legalized Abortion			-.0376	.0427***			.0272	-.0036
			(.0530)	(.0126)			(.0278)	(.0267)
Education and Empl. Status								
Up to 12 years of schooling			.0961	-.0988			-.0737	-.0398
			(.0925)	(.0689)			(.0528)	(.0353)
Some college			-.247***	-.267***			-.1193*	-.0490
			(.0967)	(.0867)			(.0653)	(.0428)
Fraction Employed			-.857***	-.152**			-.0332	-.0201
			(.0882)	(.0692)			(.0385)	(.0262)
Fraction Unemployed			-.7874***	-.3621***			-.1144**	-.0658*
			(.1763)	(.1326)			(.0576)	(.0389)
Age and Race Composition	no	no	Yes	yes	no	No	Yes	yes
Year Effects	yes	yes	Yes	yes	yes	Yes	Yes	yes
State Effects	yes	yes	Yes	Yes	yes	Yes	Yes	yes
State-specific Trends	no	yes	No	Yes	no	Yes	No	yes
Adjusted R^2	.86	.95	.91	.96	.79	.93	.81	.93
Number of obs.	1530	1530	1282	1282	1530	1530	1217	1217

Panel data regression estimates, sample period 1968-1999.
Estimated using state population weights for white and black. Robust standard errors in parenthesis. ***, ** and * respectively denote 1%, 5% and 10% levels.
Source: Total fertility rates are calculated using the *Vital Statistics* of the USA.

TABLE IX
THE IMPACT OF UNILATERAL DIVORCE ON OUT-OF-WEDLOCK BIRTHS
DEPENDENT VARIABLE: OUT-OF-WEDLOCK RATIO

	Out of wedlock ratio (15-44 years old women)			
Specification	(1a)	(1b)	(2a)	(2b)
Unilateral Divorce	-1.279***	-1.189 ***	-1.637***	-.7083**
	(.2846)	(.2646)	(.441)	(.3675)
Legalized Abortion			8.206***	2.284*
			(1.065)	(1.381)
Education and Empl. Status				
Up to 12 years of schooling			11.22***	.7246
			(3.379)	(3.013)
Some college			8.530**	-.2684
			(3.935)	(3.409)
Fraction Employed			-2.338	-6.679
			(2.887)	(2.989)
Fraction Unemployed			1.019	-4.228
			(6.981)	(6.468)
Elasticity	**5.9%**	**5.5%**	**7.5%**	**3.25%**
Age and Race Composition				
Year Effects	Yes	Yes	yes	Yes
State Effects	Yes	Yes	yes	Yes
State-specific Trends	No	Yes	no	Yes
Adjusted R^2	.96	.98	.96	.98
Number of obs.	1481	1481	1233	1233

Out-of-wedlock ratio is defined as the ratio of births out-of-wedlock over total births. Coefficients multiplied by 100.

Panel data regression estimates, sample period 1968-1999. Estimated using state population weights. Robust standard errors in parenthesis. ***, ** and * respectively denote 1%, 5% and 10% levels. Demographic controls are the shares of the total female population in age group *a* and of race *r*, in state *s* in year *t*, where the age groups are 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, and race is white, black and other.

Source: Birth rates for married and unmarried women are calculated using the *Vital Statistics* of the USA.

TABLE X
THE IMPACT OF UNILATERAL DIVORCE ON BIRTHS/POP, BY MARITAL STATUS
WOMEN AGE 15-44

	Non Marital Births/Pop				**Marital births/Pop**			
Specification	(1a)	(1b)	(2a)	(2b)	(1a)	(1b)	(2a)	(2b)
Unilateral Divorce	-.4748***	-.4401***	-.8307***	-.7483***	-1.938	1.192	5.340	5.609
	(.1862)	(.1740)	(.2626)	(.3151)	(4.826)	(2.408)	(5.339)	(3.733)
Legalized Abortion			2.026***	-.8702			-31.33***	-12.88***
			(.6785)	(.7938)			(8.159)	(4.841)
Education and Empl. Status								
Up to 12 years of schooling			7.858***	.9915			-52.76***	-37.42**
			(3.160)	(2.673)			(22.12)	(18.20)
Some college			2.821	-6.011*			-62.46***	1.081
			(3.472)	(3.387)			(24.88)	(21.54)
Fraction Employed			-10.22***	-8.158***			-84.61***	3.072
			(2.678)	(3.063)			(20.62)	(16.16)
Fraction Unemployed			-9.570*	-9.034			-117.65***	-41.19
			(5.780)	(5.907)			(46.47)	(37.02)
Age and Race Composition	No	No	Yes	Yes	no	no	Yes	yes
Year Effects	Yes	Yes	Yes	Yes	yes	yes	Yes	yes
State Effects	Yes	Yes	Yes	Yes	yes	yes	yes	yes
State-specific Trends	no	Yes	No	Yes	no	yes	no	yes
Adjusted R^2	.94	.96	.95	.96	.42	.78	.69	.78
Number of obs.	1481	1481	1233	1233	1626	1626	1318	1318

Panel data regression estimates, sample period 1968-1999.
Estimated using state population weights. Robust standard errors in parenthesis. ***, ** and * respectively denote 1%, 5% and 10% levels.
Source: Marital and out-of-wedlock births are calculated using the *Vital Statistics* of the USA.

TABLE XI
THE IMPACT OF UNILATERAL DIVORCE ON THE NUMBER OF NEVER MARRIED WOMEN
DEPENDENT VARIABLE: FRACTION OF NEVER MARRIED WOMEN, AGE 15-44,
CPS 1962-1999

Specification	(1)	(2)	(3)
	-.0135***	-.0098***	-.0026
Unilateral Divorce	(.0048)	(.0040)	(.0052)
Education and Empl. Status			
Up to 12 years of schooling		-.3037***	
		(.0462)	
Some college		-.3129***	
		(.0597)	
Fraction Employed		-.1242***	
		(.0293)	
Fraction Unemployed		.0452	
		(.0817)	
Age and Race Composition		yes	Yes
Year Effects	Yes	Yes	Yes
State Effects	Yes	Yes	Yes
State-specific Trends	No	no	Yes
Elasticity	4%	3%	1%
Adjusted R^2	.79	.85	
Number of obs.	1564	1564	1564

Panel data regression estimates, sample period 1962-1999.
Robust standard errors in parenthesis. ***, ** and * respectively denote 1%, 5% and 10% levels.
Source: Fraction of never married women is calculated using the March Supplement of the Current Population Survey

TABLE XII
THE IMPACT OF UNILATERAL DIVORCE ON THE MARRIAGE RATE
DEPENDENT VARIABLE:
MARRIAGE RATES (NUMBER OF MARRIAGES PER 1,000 POPULATION)

Specification	(1a)	(1b)	(2a)	(2b)
Unilateral Divorce	.2166** (.0922)	.2095** (.0928)		
Years 1-2			.1068	.1392
			(.1145)	(.1062)
Years 3-4			.0650	.0748
			(.1253)	(.1378)
Years 5-6			.2777**	.2690*
			(.1295)	(.1508)
Years 7-8			.3830**	.3832**
			(.1133)	(.1627)
Years 9-10			.3415***	.3623**
			(.1222)	(.1878)
Years 11-12			.4034***	.4486**
			(.1373)	(.2152)
Years 13-14			.4042***	.4698**
			(.1377)	(.2261)
Years 15 and more			.1362	.2787
			(.1323)	(.2796)
Year Effects	Yes	Yes	Yes	Yes
State Effects	Yes	Yes	Yes	Yes
State-specific Trends	No	Yes	No	Yes
Elasticity	2.3%	2.3%		
Adjusted R^2	.79	.89	.79	.89
Number of obs.	1986	1986	1986	1986

Panel data regression estimates, sample period 1956-1995. Nevada is excluded from the sample. Robust standard errors in parenthesis. ***, ** and * respectively denote 1%, 5% and 10% levels.
Source: *Vital Statistics* of the United States

TABLE XIII
THE IMPACT OF UNILATERAL DIVORCE ON FERTILITY DURING THE FIRST TWO YEARS OF MARRIAGE
DEPENDENT VARIABLE: NUMBER OF CHILDREN EVER BORN TO WOMEN AGE 15-49,
CENSUS 1980, 5% STATE SAMPLE

Specification	(1)	(2)
Unilateral Divorce	.2338***	.1692***
	(.0141)	(.0136)
Age	-.1199***	.0104*
	(.0045)	(.0053)
Age squared	.0026	.0006
	(.0000)	(.0000)
White	-.0827**	-.0335
	(.0392)	(.0228)
Black	.5506***	.5372***
	(.0329)	(.0249)
Education and Empl. Status		
Up to 12 years of schooling		.4489***
		(.0175)
Some college		.1803***
		(.0076)
Employed		-.4647***
		(.0135)
Unemployed		-.2496***
		(.0147)
State Effects	Yes	Yes
Adjusted R^2	.10	.22
Number of obs.	204,806	203,496

Source: Census 1980, 5% State Sample
Robust standard errors in parenthesis. Corrected for clustering at the state level ***, **and * respectively denote 1%, 5% and 10% levels.