The Impact of Unilateral Divorce on Crime

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Abstract

Using data from the FBI’s Uniform Crime Report program and differences in the timing of the reform’s introduction, we find that unilateral divorce caused an increase in violent crime rates of approximately 9 percent during the period 1965-1996. When we use age at the time of the reform as an additional source of variation, our findings suggest that young adult cohorts, who were children at the time of the reform, were particularly affected. Finally, we show evidence that a potential channel behind our findings is an increase in poverty and inequality among mothers who were “surprised” by the reform.
1 Introduction

Family as institution has undergone a “complete make-over” in the U.S. and Europe over the last fifty years. Among the most important institutional changes was the reform in divorce legislation, often-called the “Divorce Revolution”. Unilateral divorce -the right of one spouse to seek a divorce without the consent of the other- has captured the greatest amount of attention in the literature during the last twenty years.¹ After a lengthy scholarly debate about the impact of unilateral divorce on divorce rates (Peters 1986; Friedberg 1998; Gruber 2004), there is now a growing consensus that there was a short-term increase in divorce rates (around 8-10 years) following the reform (Wolfers, 2006). Scholars suggest that the reform has caused changes in the selection into and out of marriage, increasing the average match-quality of new and surviving marriages (Mechoulan 2006; Matouschek and Rasul 2008).²³

Using U.S. Census data, Gruber (2004) finds that those adults who were exposed to the reform as children have lower educational attainments and lower family incomes.⁴ Although seemingly contradictory, these results are consistent with evidence that the increase in divorce was only temporary and that better marriage selection occurred because of unilateral divorce. Since divorce legislation affected the dissolution clause in a marriage contract, the unilateral reform can be seen as a retroactive change in this clause, affecting those marriages already in place at the time of the reform. Therefore, a change in legislation may have produced heterogeneous effects on those people who decided to marry, had children or made marriage investments based on the previous divorce rules. Hence, while there may have been a transition period with no long lasting consequences at the

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¹ Nevertheless, the process began before 1950 in a number of states, by removing fault grounds, such as adultery, desertion or physical abuse, in order for spouses to ask for a divorce (Gruber 2004). In the early 1970’s some states started introducing not only no-fault grounds in the legislation but also allowing one spouse to ask for a divorce without the consent of the other spouse, which has been called “Unilateral divorce”. An additional aspect of the reform is related to the division of property and assets in case of divorce. For a detailed review of the characteristics of the reform, see Mechoulan (2005).

² This interpretation gains support from recent evidence on the lower divorce rate among couples married under unilateral divorce, compared with those married under mutual consent (Mechoulan 2006). Additionally, evidence supports a reduction in the average duration of marriages that end in divorce (Matouschek and Rasul 2008).

³ Recent research has focused on the role of the reform in several other aspects of individual behavior. Some examples are studies on family formation (Drewianka 2004; Alesina and Giuliano 2007), marriage-specific investments (Stevenson 2007) or female labor supply (Gray1998; Chiappori, Fortin and Lacroix 2002; Stevenson 2008). The evidence in these studies also points towards changes in behavior in those marriages formed under the new legislation.

⁴ He also finds that those individuals tend to marry earlier but separate more often, and have higher odds of suicide. Johnson and Mazingo (2000) using 1990 U.S. Census data examine the amount of time individuals were exposed to unilateral divorce laws as children, finding results consistent with Gruber (2004).
aggregate level, there might be different effects for those families “trapped” in that transition, and particularly for their children. This line of reasoning constitutes the main motivation for the present work.

This paper investigates the impact of unilateral divorce reform on crime. Specifically, we are interested in the long-run impact of the unilateral divorce reform on those adults who were exposed to the change in the legislation as children. One motivation for this question comes from combining Gruber’s (2004) findings of lower education attainments under unilateral divorce for children and those of Lochner and Moretti (2004), who find that schooling significantly reduces the probability of incarceration and arrest.\(^5\)

Stevenson and Wolfers (2006) provide a link between unilateral divorce and crime, specifically domestic violence and spousal homicide.\(^6\) They show that in states that introduced unilateral divorce there is a sizable decline in domestic violence and in the number of women murdered by their partner. Given the nature of the outcomes (use of force), and biological differences in terms of physical strength between genders, this analysis mostly captures the benefit to women who were locked into a bad marriage and who, as a consequence of divorce becoming easier, were able to escape from such a difficult environment. As mentioned earlier, it also points toward a better selection into and out of marriage.\(^7\)

Despite the current evidence of a reduction in intimate crime, in this paper we show that unilateral divorce leads to a sizable increase in aggregate violent crime in adopting states. Second, we find that the impact comes principally from individuals who were young children at the time of the reform, whose families were “surprised” by the change of legislation. Consistent with these findings, we provide evidence suggesting that, in the few years following the reform, mothers in adopting states were more likely to become the head of the household and to fall below the poverty line, especially the less educated ones. Therefore, our results suggest that a potential channel linking

\(^5\) Consistent with Gruber’s findings, Cáceres-Delpiano and Giolito (2008) find, using U.S. Census data for the years 1960-1980, that children are 16 to 24 percent less likely to be enrolled in a private school, and that those of pre-school age at the time of the reform (age 0-4) are more likely to repeat a grade.

\(^6\) In addition to these two outcomes, they find that unilateral divorce produces an 8–16 percent decline in female suicide.

\(^7\) Using data similar to Stevenson and Wolfers, Dee (2003) finds that unilateral divorce significantly increased the number of husbands killed by their wives. Stevenson and Wolfers do not find an effect on husbands killed. One way to reconcile these results, given Dee’s shorter sample period (1968-1978), is that his results may come from marriages formed under mutual consent (and where husbands were willing to divorce under the new legislation). If unilateral divorce implied selection into marriage, those effects may have disappeared once new marriages formed under unilateral divorce were taken into account.
the unilateral reform with the increase in crime might have been the worsening in economic conditions of mothers and the increase in income inequality as unintended consequences of the reform.

In order to perform our study, we exploit two sources of variation and we use three different data sets. The first source of variation comes from differences in the timing of divorce law reforms across the United States. Using crime rates from the FBI’s Uniform Crime Report program (UCR) for the period 1965-1996, we find that unilateral divorce has a positive impact on violent crime rates, an approximately 9 percent average increase for the period under consideration. Then, using UCR Arrest data, we find, for the overall period under analysis, an average increase of 19 percent in the violent arrest rates, and an approximately 25 percent increase in the case of aggravated assault and murder arrest rates. Across the different specifications, we find that the effects are concentrated mostly in the short to medium-term.

In order to identify more precisely the mechanisms behind our findings, we construct age-specific arrest rates and use a second source of variation — when different cohorts were first exposed to the reform. We find that the cohorts most affected are those who were children at the time of the reform or, in a few cases, born shortly after the change in legislation. We do not find in any case a significant impact for those cohorts who were born more than five years after the reform. The last finding provides additional support for increasing the match quality of new or surviving marriages after the reform. Another robustness check is made by applying similar empirical strategies to individual US Census data, specifically to a sample of men aged 15 to 24 for the period 1960-2000. In this case, our dependent variable, the probability of living in an institution, and our results are in line with those based on crime data.

Finally, we also use Census data for the period 1960-1980 and a sample of mothers with children younger than 18 to analyze the possible underlying mechanisms behind our results. We find that, under unilateral divorce, there is an increase in the likelihood of becoming the head of the household and an increase in the probability of falling below the poverty line. When splitting the sample by education of the mother, we observe that both results come entirely from mothers with at most a high school education. Moreover, and in line with our previous results, we find that the most affected are those mothers whose youngest child was already born at the time of the reform.
2 Unilateral Divorce, Family Disruption and Crime

There is now a wide consensus in the literature that unilateral divorce reform produced an increase in divorce rates in adopting states at least during the first 8-10 years after the change in the legislation (Wolfers 2006). In this paper, we argue that such a temporary increase in divorce was enough to produce a sizable impact on violent crime.

Even though there is extensive literature that has linked family disruption with factors related to crime, in many cases, it is difficult to distinguish correlation from causation. For example, it is a well-known fact that single-headed households, and especially those of young black mothers, are concentrated in disadvantaged neighborhoods with higher crime rates and poverty, low rates of employment and poor educational facilities (Wilson 1987), with all these factors being positively related to engagement in a criminal career.

Despite the fact that the literature devoted to disentangling the causal relationship between single headed families and crime is still not very extensive, there are a few exceptions. Kelly (2000), using data from U.S. metropolitan counties in 1991, finds very different patterns of behavior between property and violent crime. His first finding reveals that, controlling for poverty and inequality, both types of crime are positively influenced by the percentage of female-headed families, but violent crime is much more sensitive (with an elasticity of 1.6 versus 0.7 for property crime). A second major finding in Kelly (2000) is that, while property crime is largely unaffected by inequality but significantly influenced by poverty, violent crime is less sensitive to poverty but strongly affected by inequality. In general, Kelly’s findings are in line with arguments made in the criminology and sociology literature.

Recent literature has addressed the economic impact of divorce on family income. Using longitudinal data from the PSID and a dynamic model with individual fixed effects, Page and Stevens (2004) find that in the year following a divorce, family income falls by 41 percent and family food consumption falls by 18 percent. Six or more years later, the family income of the

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8 Kelly’s concern about endogeneity is focused on the variable measuring police activity. This last variable is instrumentalized by per capita income, the share of non-police expenditure by local government in total county income, and the percentage of voters that voted against the Democrat candidate in the 1988 presidential election. Additionally, a potential correlation of the rest of the variables considered and the error term, is checked by running all possible specifications that result from the different combinations of the covariates in the model. The impact of income inequality on violent crime is robust across all potential specifications.

9 Fajnzylber, Lederman and Loayza (2002) find similar results in a cross-country analysis.

10 Those factors are, among others, family structure (Matsueda and Heimer 1987; Sampson 1987; Sampson, Laub and Wimer 2006), poverty and inequality (Blau and Blau, 1982; Wilson 1987) and school completion (Rand 1987).
average child whose parent remains unmarried is 45 percent lower than it would have been if the divorce had not occurred.

Two other studies have tried an instrumental variables approach to study the impact of divorce on family income. Bedard and Deschênes (2005) show that once the negative selection into divorce is accounted for, ever-divorced women live in households with incomes that are on average similar to those of never-divorced women. New evidence supports that a small or even close to zero impact of divorce on mean income hides sizeable effects on the tails of the income distribution. Ananat and Michaels (2008), using the same instrument for divorce used by Bedard and Deschênes (sex of the first-born child), but using a Quantile Treatment Effect methodology, find that divorce widens income distribution. While some women are successful in generating income through child support, welfare, combining households, and increased labor supply after divorce, other mothers are “markedly” unsuccessful. In fact, this effect of divorce on income distribution is particularly important when we talk about crime. Their results suggest that the destabilization of first marriages may have caused some of the stagnation in poverty rates of women with children over the last several decades.

Our findings suggest that those families “at risk” were the most affected by the reform, and that an increase of income inequality and the share of single low-income households is a potential driving force behind the increase of violent crime, which is consistent with the findings of Kelly (2000).

3 Data and Variables

The crime data in our analysis comes from the FBI’s Uniform Crime Report program (UCR) (crime rates and arrest data sets). We complement these data sets by using PUMS U.S. Census data for the period 1960-2000 to study the impact on the likelihood of being institutionalized. Finally, in Section 5, devoted to discussing some of the channels behind our results, we show the impact of unilateral divorce on different outcomes using a sample of mothers from the 1960-1980 PUMS U.S. Census.

The UCR data consists of information at the state level for the eight types of crimes that are considered most important because of their nature or volume among all offenses (Part I offenses). These felonies are classified into two groups: Violent and Property Crime. Violent crime includes
murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault. Property Crime includes burglary, larceny-theft, motor vehicle theft, and arson.

In this paper, we use, first, the crime rates reported at state-year level for the period 1965-1996, and data on the number of arrests by type of offense. A second data source consists of a sample of men whose age is between 15 and 24 and constructed from the U.S. Census PUMS for the period 1960-2000. US Census samples provide information about group quarters. We use this information to construct a dummy variable that takes a value equal to one if the individual lives in an institution, and zero otherwise.

We follow Friedberg’s (1998) coding without separation requirements (See Table 1, Column 1). That is, in our analysis, we consider as “adopting states” those 31 states that adopted unilateral divorce after 1960, while the remaining 20 states are considered “control states”. However, the main results of this paper are robust to the inclusion of states which require separation to grant a divorce (See Table 1, Column 2), and to an alternative coding from Gruber (2004). (See Table 1, Column 3).

The comparative evolution between adopting and non-adopting states for raw violent and property crime rates is shown in Figure 1. For each of the panels we introduce two vertical lines signaling the years 1970 and 1975, which indicate the period that most states adopted the unilateral divorce law (see Table 1). We see, first, that adopting states have a lower incidence of violent crimes than non-adopting states. On the other hand, however, adopting states have a higher incidence of property crime for the period under analysis. Second, after (and not before) the unilateral reform started there is a monotonic reduction in the gap between adopting and non-adopting states in violent crime rates, with almost no observable difference in the 1990’s. On the other hand, the gap between

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11 Differently from Friedberg (1998), here we also include Wisconsin as an adopting state, given that separation is voluntary in this state, following Ellman and Lohr (1998), Gruber (2004) and Mechoulan (2005), among others. Friedberg acknowledges that the definition of unilateral divorce is disputable for this state (see Table 1 on Friedberg, 1998).

12 However, our main results are robust to the inclusion of states that require separation for divorce or (Table 1, Column 2) or to an alternative coding such as the one from Gruber, 2004 (Table 1, Column 3).

13 The states are Alaska, Arkansas, Delaware, District of Columbia, Illinois, Louisiana, Maryland, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Utah, Vermont, Virginia, and West Virginia. See Column 2 of Table 1.

14 According to Gruber (2004), Alaska passed the legislation in 1935, so we will consider it a non-adopting state.

15 In this case, we consider as adopting states those that adopted the regime in 1968 or later, given the information available.
adopter and non-adopter states in terms of property crime rates seems stable during the period, with a marginal tendency to increase after 1985.

4 Conclusion

In this paper, we study the impact of unilateral divorce on crime. Previous research has suggested that divorce laws affected marriage selection and produced some negative effects on individuals who experienced the reform as children. Here we study whether those changes affected crime and arrest rates in states that passed unilateral divorce laws.

First, using data from the FBI’s Uniform Crime Report program for the period 1965-1996 and differences in the timing in the introduction of the reform we find that unilateral divorce has a positive impact on violent crime rates. Consistent with these results, by using Census data for 1960-2000 we find that unilateral divorce is associated with an increase in the fraction of institutionalized people.

Our results suggest that a potential channel linking the unilateral reform with the increase in crime might have been the worsening in economic conditions of mothers and the increase in income inequality as unintended consequences of the reform.
References


NOTE - Adopting are those States that implemented the unilateral after the year 1968.

A. Violent Crime

B. Property Crime
FIGURE 2:

IMPACT OF UNILATERAL DIVORCE ON SELECTED CRIME RATES

NOTE - Each panel reports the point estimates for different regressions. Estimated coefficients refer to a dummy variables for a given state " k " periods before (after) the reform. The omitted category is the dummy for states three or four year before unilateral is introduced. Non-adopting states and adopting states eight or more years before the reform are grouped in the same category.
A- Violent Crime, B- Aggravated Assault, C- Property Crime, D- Total Crime
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<td>1983</td>
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<td>W. Virginia</td>
<td>2 years; later 1, pre-1968</td>
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**NOTE - Columns (1) and (2) are from Friedberg (1998). Column (3) is from Gruber (2004); Column (4) is from Rasul (2004) and Column (5) is from Ellman and Rohr (1998).  
* Date of the law is from Gruber (2004). ** Not considered unilateral by Friedberg (1998), although acknowledges ambiguity.**