

Divorce in Mexico: The Impact of No-Fault Unilateral Divorce Laws

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Between 2008 and 2017, Mexican states implemented no-fault unilateral divorce. Using an event-study design, we exploit state-level variation in the timing of the reforms to investigate the consequences of more liberalized divorce laws. Our results suggest that no-fault divorce dramatically increased divorce rates over the short run. We then consider how the reform impacted divorce filings and divorce settlements. We find that no-fault divorce increased individual divorce filings, especially among women. Furthermore, the reform lowered the frequency of spousal alimony payments, but redirected these alimony payments towards children. All results hold when accounting for state-specific time trends.

JEL codes: D13, J12, K36, O12

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1 Introduction

How does the liberalization of divorce laws affect divorce rates? A large body of research has documented the effects of no-fault unilateral divorce laws in the U.S. and Europe (Friedberg 1998, Wolfers 2006, González and Viitanen 2009, and Kneip and Bauer 2009), but few studies have examined whether these findings can be generalized to a developing-world context. Further, few studies have questioned whether these laws affect men and women differently in terms of which spouse files for divorce and whether they receive alimony? To fill this gap in the literature, we study the introduction of unilateral divorce in Mexico.

Mexico, like most countries in Latin America, is predominantly Catholic and has significantly lower divorce rates than the US and Europe.¹ Obtaining a divorce in Mexico has historically been an arduous process as state-level family laws offered limited legal grounds for divorce, and both spouses were typically required to consent. While there were a series of reforms throughout the 1990s, these changes were relatively conservative and still required the filing spouse to prove cause to exit the union. In 2008, more radical reforms began when Mexico City established no-fault divorce for the first time. By 2016, these reforms had spread to 24 other Mexican states. This legislation dramatically altered divorce proceedings as one spouse could now obtain a divorce without the need to prove cause.

In this paper, we exploit exogenous variation in the timing and adoption of no-fault divorce legislation in Mexico. We construct state-level quarterly divorce rates using data from the Instituto Nacional de Estadística y Geografía (INEGI), a novel data set which includes all divorces in Mexico from 2005-2016. The INEGI also contains information on the type of divorce, the cause for divorce, who filed the divorce, the existence of alimony payments (not the amount), as well the couple's demographic information. We use this data to study the direct effects on the decision to divorce, as well as indirect effects on divorce settlements. We begin by analyzing state-level divorce rates using a flexible event-study design and compare changes in divorce rates to the quarter before the legislation went into effect. We find that divorce rates increased by more than 30 percent in the three years following the reform. The results are robust to the inclusion of state-specific linear and quadratic time trends. Moreover, there is no evidence that couples anticipated the reforms by decreasing divorce filings in the periods leading up to the new legislation. Our results are consistent with the short-run findings in the United States (Wolfers 2006) and Continental Europe (González

¹Mexico is 83 percent Roman Catholic according to the CIA Factbook.

and Viitanen 2009).²

Next, we examine the relationship between divorce liberalization and the characteristics of the filing spouse. Before the legislation, couples could initiate a divorce through two paths; they could mutually consent to divorce, or one spouse could file unilaterally with cause (e.g., due to infidelity). With the passage of no-fault unilateral divorce, couples had a more convenient way to end the marriage. Therefore, we expect a lower frequency of mutual consent divorces and divorces with cause. Unsurprisingly, our results confirm this hypothesis as no-fault unilateral divorce became the most common type of divorce in 2016. We next consider how the introduction of unilateral divorce affected the gender and employment status of the filing spouse. Our results suggest that women became significantly more likely than men to initiate a divorce. Moreover, we show that while divorce filing rates increased for both employed and unemployed spouses, the increase was more substantial for employed spouses.

Outside of the direct effects on the frequency and type of divorce, the legislative reforms may have also affected divorce settlements. Due to data availability, we focus specifically on whether the settlement granted spousal alimony. Before the introduction of no-fault unilateral divorce men may have needed to compensate their partner financially to attain their consent. As a result, men who instigate the dissolution of the marriage post-reform are likely to have lower alimony payments (Peters 1986). Moreover, women who terminate their marriage may appear less sympathetic in the judicial process, resulting in fewer alimony payments. Our empirical results largely support these hypotheses as the frequency of spousal alimony payments immediately declines post-reform. Slightly unexpectedly, however, there is an increased share of divorces that pay alimony to children. While the spouses may have lower income transfers post-reform, children appear to be somewhat protected from this loss of income.

Our paper makes two main contributions to the existing divorce literature. First, we are one of the first papers to study the effects of no-fault divorce in a developing country. While there have been many papers considering the effect of the unilateral reforms on divorce rates in the United States and Continental Europe (Friedberg 1998, Wolfers 2006, González and Viitanen 2009, and Kneip and Bauer 2009), there have been few studies considering the introduction of no-fault divorce laws outside of developed countries. Developing countries vary from their developed counterparts in their social support systems for women and children, as well as state-enforced alimony pay-

²Unlike these other studies, we are unable to determine whether the increase in divorce persists over time due to data limitations. We, therefore, are unable to either confirm or reject the finding in Wolfers (2006) showing that the uptick in divorce rates in the United States reversed after a decade. Unfortunately for us, most law changes occurred within the last five years, and none earlier than Mexico City in 2008.

ments. Furthermore, opportunities outside of marriage vary by country, especially where spouses may be more dependent on one another. These factors suggest that the results from Europe and the United States cannot immediately be applied to the Mexican context. Our study fills this gap in the literature. The paper most closely related to our study is [Lew and Beleche \(2008\)](#), who document the effect of the 1990-2000 Mexican divorce reforms on divorce rates. These reforms introduced unilateral divorce *with cause* in addition to facilitating mutual consent divorce. We build upon [Lew and Beleche \(2008\)](#) by focusing on unilateral no-fault divorce in Mexico.

Second, we are one of the first studies to document the effect of no-fault divorce on the divorce process. To the best of our knowledge, we are the first study to examine the effect of unilateral divorce laws on the characteristics of the filing spouse. While past work has examined the determinants of which spouse files for divorce ([Kalmijn and Poortman, 2006](#); [Sayer et al., 2011](#)), there has been less focus on how these determinants are affected by unilateral divorce laws. Furthermore, we contribute to existing work on the relationship between unilateral divorce laws and alimony payments ([Weitzman and Dixon, 1980](#); [Weitzman, 1985](#); [Peters, 1986](#)). This focus differs from the literature on the impact of *alimony laws* on household behavior ([Rangel, 2006](#); [Chiappori et al., 2017](#)).

The remainder of this paper is organized as follows. We first provide a background of divorce reform in Mexico through the past 30 years in Section 2. We then present the data in Section 3 and the event-study design in Section 4. The main results are discussed in Section 5, where we analyze the effect of no-fault divorce laws on divorce rates. In Section 6 we present additional results pertaining to divorce filings and divorce settlements. Section 7 concludes.

2 The Mexican Context

Prior to 1917, Mexico offered few options for divorce. The country aligned with Catholic Church doctrine and solely allowed legal separation, which prohibited remarriage. In 1917, Mexico underwent its first significant set of reforms and states began to allow mutual consent divorce, divorce with cause, and remarriage post-divorce. Acceptable grounds for divorce with cause were limited to extreme life events, such as adultery, mental illness, bigamy, or incurable disease. Divorce laws remained relatively unchanged until the 1990s when individual states expanded the legal causes for divorce to include incompatibility, domestic violence, and separation.³ Despite

³Most of these reforms were implemented between 1990 and 2008.

increases in divorce rates over this period, recent work by Lew and Beleche (2008) suggest that these changes were not due to the legislative reforms, but rather preexisting state-specific time trends. The lack of an effect of the pre-2008 reforms was likely because the filing spouse still had to prove grounds for divorce, which could be a long and arduous process.

As another option, couples could attain a mutual consent divorce through an administrative process. These divorces were generally quick and easy to obtain, however, both partners had to agree to the dissolution of the marriage. If the couple could not agree on the division of assets, or the couple had children, they instead had to endure a lengthy judicial process which could last one to two years.

Beginning in 2008 Mexico City implemented *no-fault unilateral divorce*. Under this divorce regime, the husband or wife could unilaterally divorce their spouse without proving cause. This legislation was soon adopted by Hidalgo in 2011, and the majority of other states by 2017. For state-by-state information covering the timing of the divorce legislation and the legal codes enacted, see Table 1 and Figure I.⁴ Since this types of divorce passed in 2008, the types of divorce now available in Mexico are outlined as follows:

1. ADMINISTRATIVE DIVORCE: if spouses mutually consent, have no children, and agree on the division of assets, they can file for an expedited divorce that is usually completed within 15 days.
2. JUDICIAL DIVORCE: if spouses do not mutually consent to divorce, or if they have joint assets that are not easily divided, they must go through the judicial system and obtain one of the following divorce types.
 - a) Divorce with cause (necessary divorce), where causes for divorce might include domestic violence, abandoning the home, incurable illness, or adultery.
 - b) Voluntary or mutual consent divorce
 - c) Unilateral divorce, otherwise known as no-fault, uncaused or express divorce (*Beginning in 2008*)

To summarize, administrative divorce, unilateral divorce with cause, and mutual consent divorce were legal in most states prior to 2008. In what follows, we study the

⁴Table 1 shows the progression of the unilateral reform by year for each Mexican state. The table also includes the location of the legislation in each state's legal code, including whether the reform was printed in family or civil law. States with blank years represent states that have not clearly passed the unilateral reform as of 2016/2017, the last year of our sample. The geographic distribution of divorce rates and divorce laws are presented in Panels A and B of Figure I, respectively.

impact of no-fault unilateral divorce.

3 Data

We use national divorce data from the Instituto Nacional de Estadística y Geografía (INEGI), which includes all divorces in Mexico from 2005-2016. The data records the location of the divorce, the type of divorce, the cause for divorce, who filed the divorce, the incidence of alimony payments, as well as the couple's demographic information.

Table 2 displays summary statistics of divorces filed between 2005 and 2016.. Panel A shows the original microdata with the summary statistics divided by the type of divorce. For non-unilateral divorces (i.e., mutual consent and divorce with cause), 13.4 percent are initiated by the woman, 10.3 percent by the man, and 76.1 percent are initiated by both individuals. Women are also more likely than men to initiate a unilateral divorce. The average marriage duration of unilateral divorces is longer than non-unilateral, 15.5 years versus 13.8, an almost two difference in average duration. Finally, marriages without children are significantly more likely to end in unilateral divorce relative to non-unilateral divorce.

We aggregate this divorce microdata to quarterly, state-level data, with the summary statistics shown in Panel B of Table 2. We combine the aggregate data with other state-level outcomes from the INEGI. These additional data include the aggregate quarterly economic conditions, as well as microdata covering marriages, deaths, and births. In our primary analysis, we rely on controls for the unemployment rate and INEGI's measure of state economic conditions. In an additional robustness check, we control for the marital rate, death rate, and birth rate.

The INEGI also contains detailed data on marriages from 1993-2016. Beginning in 2009, the INEGI began recording the property division regime of marriages, with property types including communal, separate, or mixed. The most commonly chosen property division is communal property, which makes up slightly less than two-thirds of all marriages. With communal property, all assets are shared across both spouses. Unfortunately, the property regime is only included in the marriage data, and not the divorce data. Table 2 provides the descriptive statistics of marriage characteristics, including the property regimes and the marriage rate by state.

To measure the timing of the divorce legislation, we collect the date that the no-fault unilateral legislation passed in each state from state-level civil and family laws.

Table 1 shows the year passage, as well as where the reform is located in the state's legislation. Some states record divorce proceedings in civil codes, and others record divorce legislation in family codes. For states that do not show evidence of having a unilateral divorce law, the years are blank. We confirm the accuracy of the legislation dates in two ways. First, we corroborate our findings with the reform dates provided in Mendez-Sanchez (2014) and Garcia-Ramos (2017), who also study no-fault divorce in Mexico. Second, we ensure that our dates are consistent with our divorce data. In states where there is no unilateral divorce legislation, we should not see unilateral divorces in the microdata. Thus, we conclude a state has passed unilateral divorce legislation if there are a nonzero number of unilateral divorces in the data.⁵ If there are discrepancies between our legal research and the data, we defer to the data.

Before proceeding to our empirical strategy, we first present general trends in divorce over our sample time period. In the first graph, Figure IV, we plot the frequency of divorce in Mexico across time, as well as the frequencies of various types of divorce. The green line represents the total divorce rate while the types of divorce rates including: unilateral, mutual consent, and with-cause divorce, are given by the blue, red, and orange lines, respectively. Several key patterns emerge. First, following the reform in 2008, divorce rates began to rise, with the majority of this rise attributable to changes in unilateral divorce. There was also a steady decline in divorce with cause and mutual consent divorces.

At the country level, the immediate effect of the legislation is muted by the fact that only one state passed the reform in 2008, and the rest after 2011. The instantaneous effect of the reform is more apparent in the divorce rates of individual states that passed the reform in the remainder of the plots in Figure IV. Beginning with the passage of unilateral divorce, indicated by the vertical line, divorce rates increased immediately and dramatically. There is also a decline in with-cause divorce filings, as the unilateral reform eliminated the need to prove cause in the judicial process. Depending on the state, mutual consent divorces also declined. In Mexico City, consenting divorces were relatively stagnant, but in Sinaloa and Coahuila de Zaragoza, mutual consent divorces declined to almost zero.

4 Empirical Strategy

To identify the causal effect of no-fault divorce laws on divorce rates, we exploit state-level variation in the timing and adoption of divorce legislation. We track quar-

⁵Instead of zero, we chose ten since there seems to be measurement error in the survey.

terly changes in divorce rates before and after the reform using a flexible event study. Under this design, changes in divorce rates are compared to the quarter before the legislation went into effect, as well as to conditions in never-treated states. Our main specification takes the following form:

$$\text{Divorce Rate}_{st} = a_s + \eta_t + \phi_s t + \pi_s t^2 + \sum_{T=-10}^{10} \beta_T \text{Unilateral}_{sT} + \epsilon_{st} \quad (1)$$

where Divorce Rate_{st} is the divorce rate in state s and quarter-year $t = 2005\text{Q1}, \dots, 2016\text{Q3}$. State fixed effects, a_s , control for factors that would affect selection into treatment by absorbing time-invariant characteristics of each state. Time fixed effects are captured by η_t and include the quarter, year, and quarter-year combination. Lastly, we add linear and quadratic state-specific time trends using $\pi_s t$ and $\pi_s t^2$, respectively. The regression error is given by ϵ_{st} . Controls include annual state economic activity and the state-level unemployment rate.

The causal effect of the reform is captured by the event-study indicator variable, Unilateral_{sT} . T represents the period relative to the reform and covers ten quarters before and after the reform.⁶ The quarter before reform, $T = -1$, is the excluded period and provides a baseline for divorce rates before and after implementation. The excluded period includes both reform states as well as never-treated states. The event-study specification directly tests the assumption that pre-reform changes in divorce rates are uncorrelated with the reform timing and location. Pre-reform divorce rates might change in response to the reform if couples anticipated the divorce legislation and delayed their divorce. The main effect is given by the post-reform dummy variables, $T = 1, 2, \dots, 10$, which capture the changes in divorce rates in each quarter after the reform.

5 Unilateral Divorce and Divorce Rates

5.1 Main Results

We begin by formally analyzing the immediate effect of the passage of unilateral no-fault divorce on divorce rates. Figure II plots the coefficients from the event-study specification (Equation 1) for quarter T before and after the reform. Each plotted line

⁶More formally, T indicates each observation's timing relative to reform in state s in period zero. T is the difference between time t and the quarter-year the unilateral divorce law was implemented, m , where $T = t - m$.

represents a weighted least squares estimation of the divorce rate, with the weights based on the population over age 15. We limit the analysis to a maximum of ten quarters before and after the inception of the law. Each event-study indicator variable measures the quarterly effect of the passage of no-fault divorce on divorce rates per 1,000 persons above age 15 relative to the baseline period $T = -1$. The points connected by solid lines represent the estimated coefficients on the divorce rate. The dashed or dotted lines represent the 95 percent confidence interval around each point estimate. The red vertical line depicts the baseline excluded period before the unilateral reform went into effect. The graph also displays three separate estimations, where the yellow line shows the estimates without any trend, the blue line adds a linear trend, and the purple line attaches a quadratic trend. All three plotted estimations show a clear spike in divorce rates following the adoption of unilateral divorce legislation.

The results suggest that the introduction of no-fault divorce laws resulted in a steady increase in the rate of divorce in treated states. In the subsequent year ($T = 3$), the divorce rate increased by 0.11 per 1,000 adults relative to period $T = -1$. After two years ($T = 7$), the divorce rate increased by 0.19 per 1,000 adults. These estimates show that the introduction of the unilateral reform raised divorce rates substantially. With the average divorce rate per quarter of 0.29, the coefficients suggest that divorce rates increased by 35.2 percent after the reform. The rise in divorce rates persists for the three years available following the reform. The coefficients also reveal that couples did not anticipate the reform as the impact of the legislation was quite sudden.

Our results in the Mexican context are generally consistent with [Wolfers \(2006\)](#). First, we see a similar spike in divorce rates in the year immediately following the introduction of no-fault divorce. Our results differ in the magnitude of the increase; we find that divorce rates increased by roughly three times more in Mexico than they did in the US in the two years following the law change. Graphically, our results seem more gradual, but this is due to our use of quarterly data as opposed to annual data. [Wolfers \(2006\)](#) also finds that the higher divorce rates do not persist over time, and return to baseline levels after a decade. This finding is consistent with poorly matched couples separating immediately following the legislation, leaving higher quality matched marriages intact. Ideally, we would like to see if this pattern holds in Mexico, however, because of the short length of our panel, we cannot yet determine if there is a lasting effect.⁷

⁷To properly compare the magnitude of our estimates to related research, the coefficients must be converted from quarterly estimates into annual terms. Specifically, we convert the quarterly rate to a yearly rate as follows:

$$\frac{4 \text{ Quarters}}{\text{Year}} \times \frac{0.292 \text{ Divorces}}{1,000 \text{ Persons per Quarter}} = \frac{1.16 \text{ Divorces}}{1,000 \text{ Persons per Year}}$$

For completeness, we show the coefficients from Figure II in Table 4. Each row reports the coefficients on the event-study dummy variables from Equation (1) for period T , before and after the reform. As with the figure, the results are nearly identical in magnitude across columns, suggesting that state-specific time trends in divorce rates do not dramatically differ across states. For a non-event-study figure showing the trends in divorce rates and divorce filings, see Figure IV.

5.2 Checks on Main Specification

We test the robustness of our baseline results with divorce rates using several alternative specifications. First, we examine the sensitivity of our results to changes in the stock of married individuals. Marriage rates may have declined following the introduction of unilateral divorce resulting in fewer marriages “at-risk” of divorce (Rasul 2004). To account for this, we follow Wolfers (2006) and adjust how we calculate the divorce rate. Instead of looking at divorces per adult, we consider the number of divorces per *married* adults over age 15 in each state.⁸ Table 3 Column (1) shows our preferred specification with the divorce rate per married person. Here the quarterly divorce rate appears much higher for the at-risk population at 0.48 divorces per married person versus 0.29 divorces per adult. The effect of the unilateral reform also increases, with the effect almost double the baseline response to the reform.

Next, we attempt to control for divorce norms in the state adopting the unilateral reform. To accomplish this, we control for the proportion of neighboring states that have adopted no-fault divorce legislation. This control will be especially helpful if there are significant regional norms that may contaminate the effect of the legislation. Table 3 Column (2) displays the adjusted specification, controlling for the proportion of neighboring states who have passed unilateral divorce in each quarter-year. The results controlling for the neighboring state’s reforms are similar to the baseline specification in Table 4 Column (4).

Another potential concern is that states with higher historical divorce rates may have been more inclined to adopt liberal divorce laws. If there is a regression to the mean across states, then there could be a convergence in divorce norms over time leading to a comparable rise in divorce rates in the control states. In Columns (3) and (4) we adjust our specification to account for this potential regression to the mean. To

⁸To construct a panel of the married population we take linear averages between IPUMS years 2000, 2010, and 2016. We also use the one year lag, to reflect the stock of marriages at risk of divorce in the prior year.

accomplish this, we calculate the ever-divorced population in the 2000 IPUMS.⁹ In Column (3) we interact this ever-divorced population with a linear trend and find results that are similar to our baseline findings. In Column (4) we divide states into quintiles based on their 2000 ever-divorced rate and interact these quintiles with year fixed effects. Here the coefficients are slightly different and indicate that in reform states, divorce rates were higher in the period leading up to the reform. These higher pre-reform divorces rates, however, are still much smaller than the post-reform increase in divorce rates.

Next, in Column (5) we present results on a restricted sample that includes states that implemented no-fault divorce at some point before 2016. The motivation behind this restriction is that states that have never adopted no-fault divorce laws may be different in unobservable ways that could bias the results. As a result, these states may not belong in the control group. Encouragingly, the restricted results are consistent with the baseline results. Then, in Column (6) we restrict the pre-period to a grouped combination of all years before the reform. This more closely matches the specifications in the related literature, and the adjustment has little effect on the results. Finally, in Column (7) we add additional controls for the state-level deaths rates, marriage rates, birth rates, and fetal death rates. These controls have little effect on the results.

6 Additional Results

We build upon our results in Section 5 by studying several other aspects of the divorce process. In Section 6.1, we examine who files for divorce post-reform, focusing on gender and economic status. Then in Section 6.2, we study changes in divorce settlements in the form of alimony payments. We also provide information on the labor market consequences of unilateral divorce in Section A.1 of the Appendix, but find limited effects.

6.1 Divorce Filings

Certain types of individuals are likely to benefit from the introduction of no-fault divorce. In general, we expect the spouse with the more attractive opportunity outside of marriage to be better off. These individuals are now able to receive a divorce

⁹Wolfers (2006) performs a similar test. We use calculated the ever divorced population using the proportion of adults who were ever-divorced in the IPUMS sample.

without the consent of their spouse. A priori, it is not clear whether men or women stand to gain from these reforms. We do, however, expect the more financially well-off spouse to benefit.¹⁰ In what follows, we analyze the characteristics of the spouse who initiates the divorce using detailed information on the divorcing couple.

We begin by examining the role of gender in the divorce process. Prior to the introduction of no-fault divorce, women were more likely to file for divorce. In Table 2, we see that 13.4 percent of divorces are initiated by the wife, with 10.3 initiated by the husband.¹¹ Because the initiating party had to prove cause to obtain the divorce, post-reform we may expect women to disproportionately benefit. To test whether the legislation shifts the gender composition of the person filing for divorce, we show the gender-based divorce filings in Figure III Panel A. The purple line corresponds to female-initiated filings, and the green line shows the male filings. Unsurprisingly, we see a dramatic increase in individual filings from both men and women. The change in non-mutual filings is higher in magnitude for women than men. We show this formally by plotting the difference in filing rates by gender, shown by the yellow line. From this exercise, we conclude that some women appear to benefit from the law change as they can more easily exit bad matches post-reform.

We next analyze the role of economic status in the divorce proceedings. While the available data on the financial situation of the couple is limited, we do observe the employment status of each spouse. We expect unemployed individuals to infrequently file for divorce as they have an unattractive outside option. Our results, however, do not necessarily corroborate this hypothesis. Figure III Panel B shows the change in the divorce rate for unemployed individuals by gender. Both unemployed men and women initiate the divorce proceedings more frequently following the introduction of unilateral divorce. The rise in individual filings is unsurprising given that non-mutual divorce fillings increased for everyone following the reforms. Through this exercise, we see that unemployed women increased their divorce filings by more than unemployed men. This increase suggests women may have more of a social network to rely on post-divorce, or that they believe they will be more likely to receive alimony than their spouse. To test how substantial this effect is, we analyze the difference in divorce rates between employed and unemployed women. Employed women have more financial stability and are less dependent on their husbands. Consistent with this perspective, in Panel C we see that the divorce rate for employed women is higher than unemployed women after the passage of the legislative reforms.

¹⁰Property division laws are also an important determinant that we are unable to consider due to data limitations.

¹¹Mutual consent divorces are by default initiated by both spouses and before the introduction of no-fault unilateral divorce was the primary filing type at 76.1 percent.

6.2 Divorce Settlements

The above results describe how no-fault divorce laws impact the characteristics of couples who divorce. We next analyze how these laws affect the outcomes of the divorce proceedings by considering how the assignment of alimony payments following the reform.

There are theoretical reasons to expect alimony payments might be affected by the reforms. Before the introduction of no-fault divorce, men would need to compensate their partner financially for them to consent to the divorce. As a result, men who instigate the dissolution of the marriage post-reform are likely to have lower alimony payments ([Peters 1986](#)). Moreover, women who terminate their marriage may appear less sympathetic in the judicial process resulting in lower alimony. We test these predictions using our event-study framework. Figure [III](#) Panel D displays the share of divorces that receive alimony pre- and post-reform. First, the results suggest that there is a decline in alimony payments to spouses. By contrast, the fraction of divorces paying alimony to children increases post-reform. Following the passage of unilateral divorce, a higher share of divorces award alimony payments to children. As divorces that file unilaterally clearly have fewer children, and are more likely to have no children (see [Table 2](#)), this effect is puzzling. The finding holds for total marriages, as well as the share of marriages with children. It is possible that the judicial process, unlike with spousal support, is more friendly to children who experience a unilateral divorce. It is also conceivable that a portion of the spousal support that was previously distributed now goes to the children directly.

Why might unilateral reform decrease alimony payments to spouses? As suggested above, couples may have less negotiating power in the dissolution of the marriage, resulting in lower alimony payments. A second reason is that couples who file for a unilateral are less economically well off. The lower economic status of couples filing for divorce is especially plausible as the unilateral reform decreases the time involved in and the financial burden associated with divorce. Moreover, this hypothesis is consistent with our earlier results suggesting that the divorce rate for unemployed persons increases post-reform. These couples are economically worse off and have fewer assets to divide.

From the above results, the unilateral reform appears to change not only the divorce rate but the types of divorces filed. Intuitively, unilateral divorce increases the rate of divorces filed individually, for both men and women. Less intuitively, no-fault divorce appears to lower alimony payments, and lower the cost to divorce so that unemployed and less educated individuals undergo divorce proceedings.

7 Conclusion

In this paper, we study the introduction of no-fault unilateral divorce in Mexico. Using an event-study framework, we examine how these reforms affected the frequency of divorce, the characteristics of those who filed for divorce, and changes in divorce settlements.

We find that state-level divorce rates increased dramatically in the three years (10 quarters) following the liberalization of divorce laws. The observed short-run rise in divorce rates as a result of the Mexican unilateral reform is similar to the findings in the United States (Wolfers 2006) and Continental Europe (González and Viitanen 2009). Our findings also suggest that no-fault divorce increased individual divorce filings. In terms of the outcomes of divorce settlements, we see a decline in alimony payments to spouses. This reduction suggests that while women are more willing to file for divorce, they may appear less sympathetic in the judicial process. We do find that despite the lower alimony for spouses, alimony payments to children increase post-reform.

Our paper has two main contributions. First, to our knowledge, we are the first paper to study no-fault unilateral divorce laws in a developing country. While there have been many papers considering the effect of the unilateral reforms on divorce rates in the United States and Continental Europe (Friedberg 1998 and Wolfers 2006, González and Viitanen 2009 and Kneip and Bauer 2009), there have been few studies considering the introduction divorce laws in the developing world.¹² Studying divorce in a developing context is necessary because it has direct implications for the well-being of women. Second, we are one of the first studies to document the effect of no-fault divorce on the divorce process, including both the effect on alimony payments and spousal characteristics. These two contributions add to our broader understanding of how couples form and dissolve marriages. It is necessary to have this foundation to design policy that improves the relative standing of women within the household. Our study contributes to this broad research agenda by examining how couples respond to the introduction of unilateral divorce legislation.

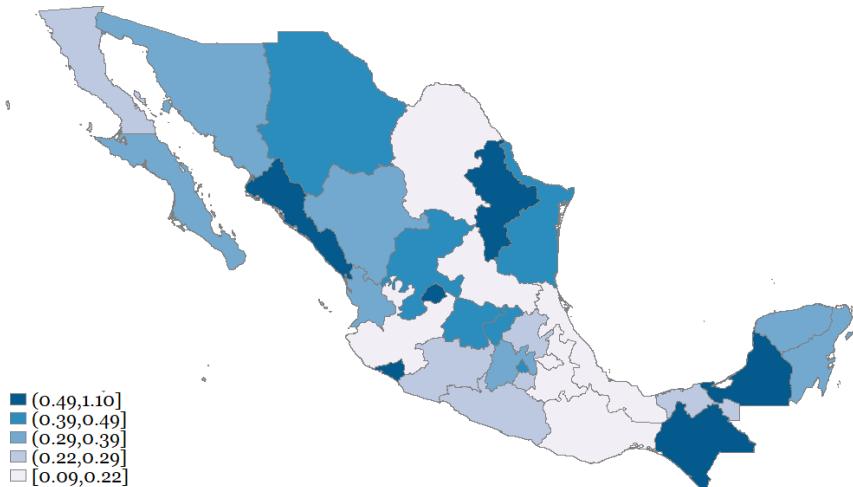
There are several limitations to our study that motivate future work. First, we are unable to discern whether the substantial changes in divorce rates persist over time. Because most Mexican states adopted unilateral divorce in the last five years, the data is not sufficient to analyze long-run effects. Second, several of our results, specifically those covering divorce filings and divorce settlements, suggest that bargaining within

¹²Lew and Beleche (2008) and Garcia-Ramos (2017) are important exceptions in the Mexican context.

the household may have changed as a result of these reforms. Divorce became a more attractive option for certain types of spouses, but the state-level analysis we use in this paper is unable to uncover these dynamics. To better understand how couples respond, future work will analyze how divorce legislation affects the intra-household outcomes of still-married households.

8 Figures

Figure I: Divorce Reform and Divorce Rates by State
PANEL A: DIVORCE RATES, 2016Q1



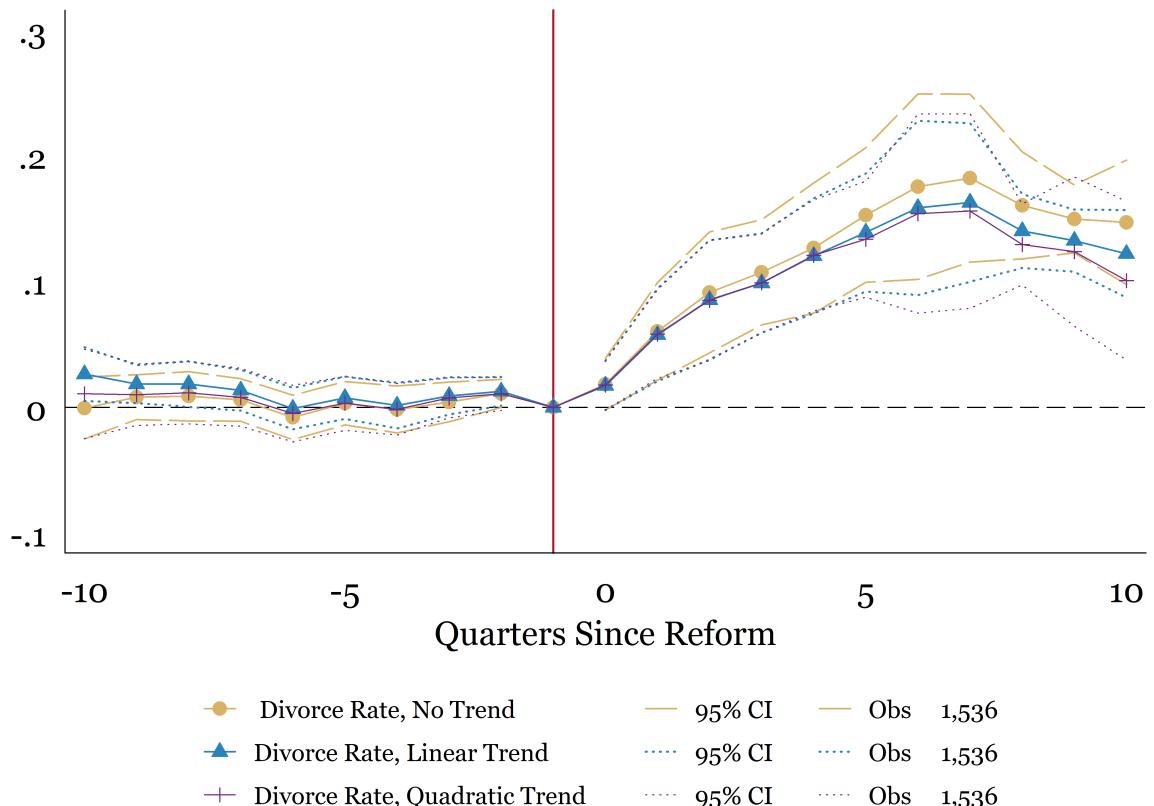
PANEL B: UNILATERAL DIVORCE REFORM



NOTES: The divorce rate is reported per 1,000 persons over age 15.

SOURCE: INEGI divorce statistics.

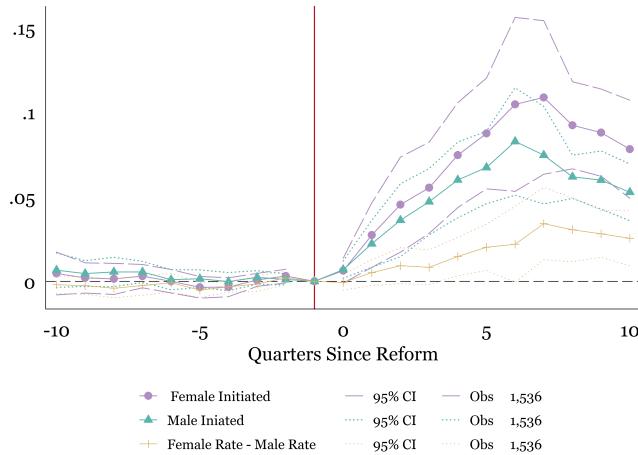
Figure II: Baseline Effect of Reform on Divorce Rates



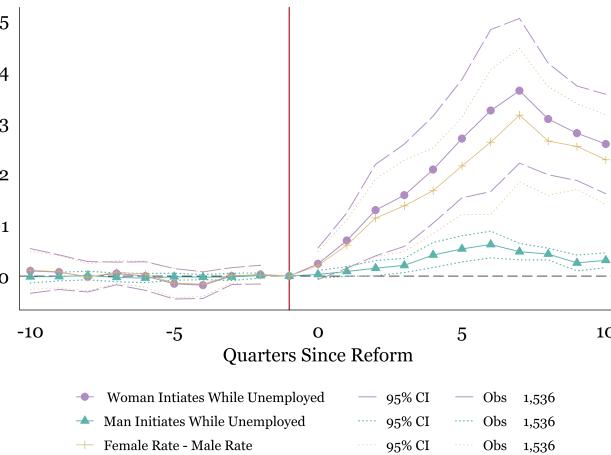
NOTES: Plotted coefficient are event-study dummy variables, β_T , from a weighted least squares estimation of Equation 1. Each plotted point represents the time before and after the unilateral reform, excluding the period just before adoption $T = -1$. Weights are based on the state population over age 15. Solid lines represent point estimates. Dashed and dotted lines display the 95 percent confidence intervals. The divorce rate is reported per 1,000 persons over age 15. Fixed effects are included for at state level; the quarter, year, and quarter-year; linear state-by-quarter-year time trends; quadratic state-by-quarter-year time trends. Controls include annual state economic activity and the state-level unemployment rate. Robust standard errors are clustered at the state level with significance levels at the 10, 5, and 1 percent.

SOURCE: INEGI divorce statistics.

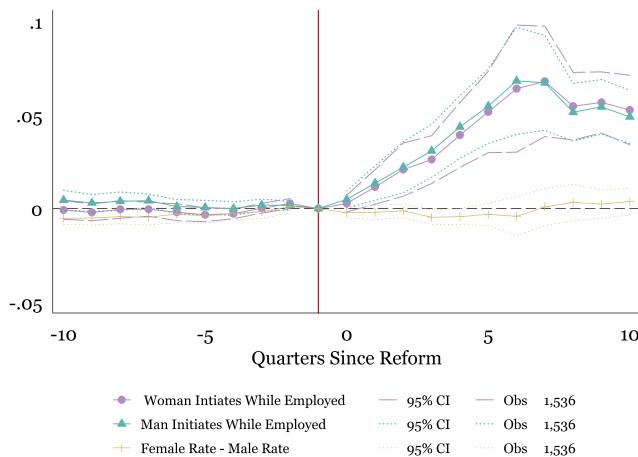
Figure III: Effect of Reform on Individual Divorce Filings
PANEL A: DIVORCE FILING RATE, BY GENDER



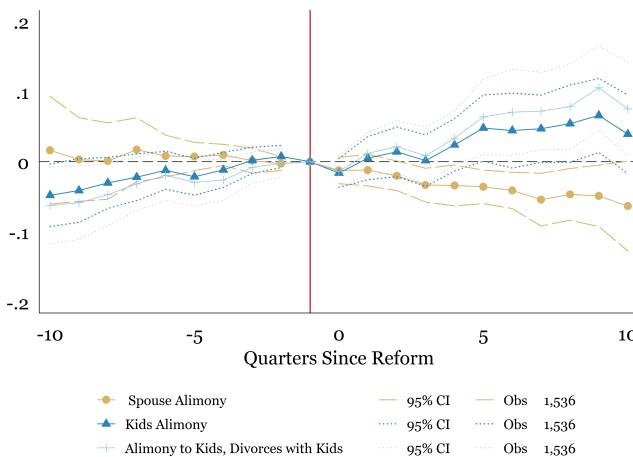
PANEL B: INITIATING PERSON UNEMPLOYED (RATE)



PANEL C: INITIATING PERSON EMPLOYED (RATE)



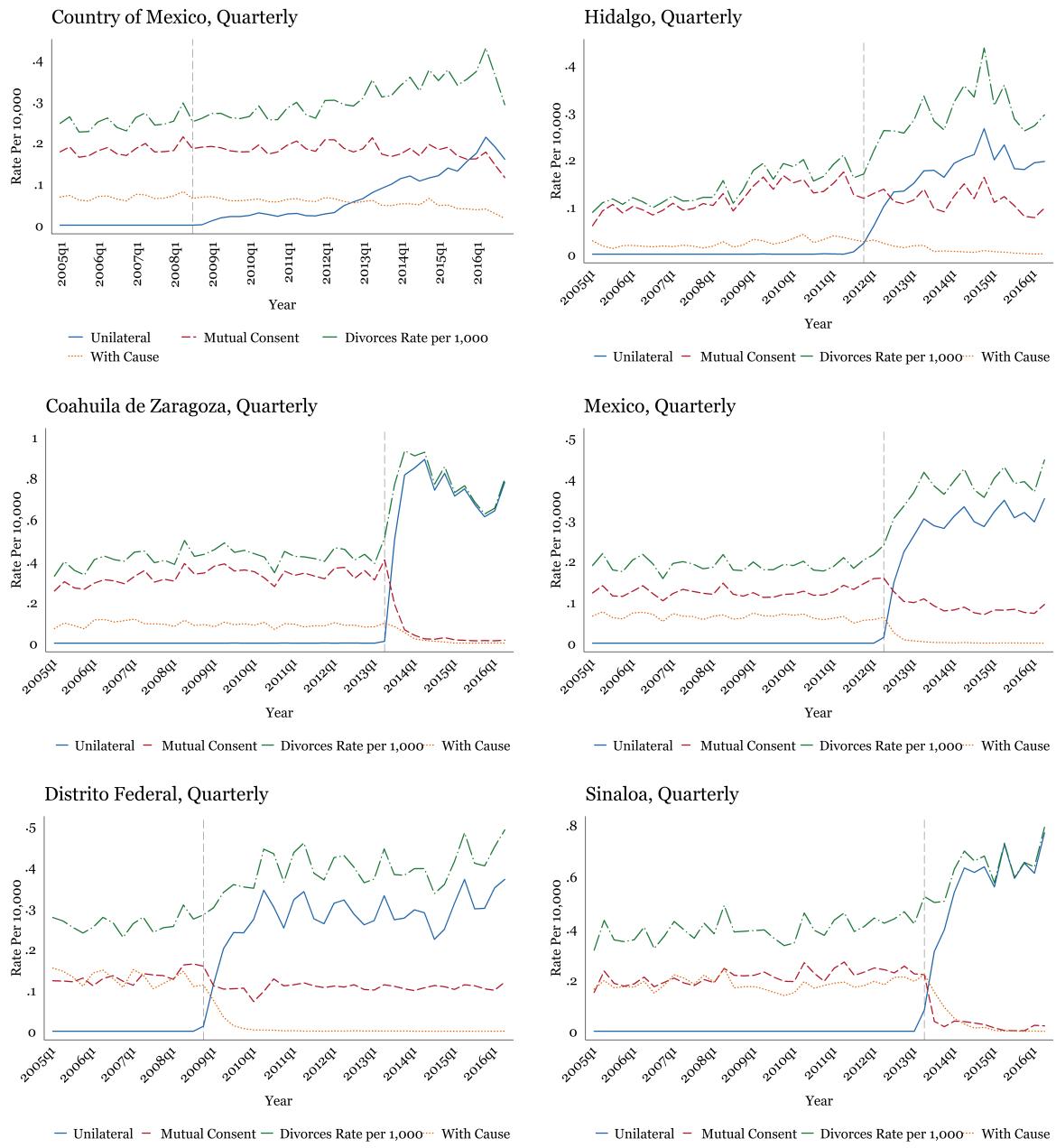
PANEL D: DIVORCES RECEIVING ALIMONY (SHARE)



NOTES: Plotted coefficient are event-study dummy variables, β_T , from a weighted least squares estimation of Equation 1. Each plotted point represents the time before and after the unilateral reform, excluding the period just before adoption $T = -1$. Weights are based on the state population over age 15. Solid lines represent point estimates. Dashed and dotted lines display the 95 percent confidence intervals. The divorce rate is reported per 1,000 persons over age 15. Fixed effects are included for at state level; the quarter, year, and quarter-year; linear state-by-quarter-year time trends; quadratic state-by-quarter-year time trends. Controls include annual state economic activity and the state-level unemployment rate. Robust standard errors are clustered at the state level with significance levels at the 10, 5, and 1 percent.

SOURCE: INEGI divorce statistics.

Figure IV: Divorce Rate by Type



NOTES: The divorce rate is reported per 1,000 persons over age 15.

SOURCE: INEGI divorce statistics.

9 Tables

Table 1: Unilateral Divorce Legislation Year and State

Region	State	Year	Legal Code	Divorce Articles
Central	Mexico City	2008	Civil	266, 267, 272
	Guanajuato		Civil	328, 323, 329
	Hidalgo	2011	Family	102, 103
	Mexico	2012	Civil	4.89, 4.91, 4.191, 4.102, 4.105
	Morelos	2016	Family	174, 175
	Puebla	2016	Civil	442 - 453
	Queretaro	2015	Civil	246, 249, 252, 253
	Tlaxcala	2016	Civil	123, 125
North	Aguascalientes	2015	Civil	288, 289, 294, 295, 296, 298
	Baja California		Civil	264, 269, 271
	Baja California Sur		Civil	305, 273, 277, 278, 279, 284, 288, 289
	Coahuila	2013	Civil	362, 363, 369, 374
	Chihuahua	2016	Civil	255, 256
	Durango	2016	Civil	261-286
	Nuevo Leon	2014	Civil	267, 272, 274
	San Luis Potosi	2016	Family	86, 87
	Sinaloa	2013	Family	181, 182, 184
	Sonora	2015	Family	141-156
	Tamaulipas	2014	Civil	248, 249, 253
	Zacatecas		Family	214, 215, 223, 224, 231
West	Colima	2016	Civil	267, 268, 272, 273, 278
	Jalisco		Civil	404, 405
	Michoacan	2016	Family	256, 257, 258
	Nayarit	2015	Civil	221, 260, 261, 263, 265
South-East	Campeche	2014	Civil	281, 282, 283, 284, 287
	Chiapas	2014	Civil	263, 268, 269, 270
	Guerrero	2012	Ley de Divorcio	4, 11, 12, 13, 16, 17, 27, 28, 44
	Oaxaca	2017	Civil	278, 279, 284, 285
	Quintana Roo	2016	Civil	798, 799, 800, 801, 804, 805
	Tabasco	2015	Civil	257, 258, 267, 268, 269, 272
	Veracruz	2015	Civil	141, 146, 147, 148, 150
	Yucatan	2013	Family	191, 192

SOURCES: Family and civil codes of each state. Popular press articles. Garcia-Ramos (2017). Mendez-Sachez (2014). When the sources conflict, we default to the quarter-year combination where the number of unilateral divorces sentenced passes ten for each state in the national data (see INEGI).

NOTES: Author's combination of the above sources. States with blank year had not passed unilateral divorce as of 2016/2017. The last year of the sample in the ENIGH is 2016, so passage after 2016 will not affect results.

Table 2: Divorce Summary Statistics
PANEL A: EACH DIVORCE FILING, BY TYPE

	<i>Not Unilateral</i>	<i>Unilateral</i>	<i>Difference</i>
	Mean	Mean	b
Type			
Mutual Consent	0.759	0.000	0.76***
With Cause	0.239	0.000	0.24***
Judicial	0.838	0.996	-0.16***
Admin	0.162	0.004	0.16***
Characteristics			
Female Initiated	0.134	0.484	-0.35***
Male Initiated	0.103	0.351	-0.25***
Both Initiated	0.761	0.118	0.64***
Alimony Kids	0.557	0.592	-0.03***
Alimony Spouse	0.059	0.046	0.01***
Alimony Kids and Spouse	0.050	0.035	0.02***
Has Child	0.873	0.826	0.05***
Children	1.907	1.667	0.24***
Marriage length	13.830	15.484	-1.65***
N	861,809	216,581	1,078,390

PANEL B: STATES, BY UNILATERAL REFORM

	<i>Not Unilateral</i>	<i>Unilateral</i>	<i>Difference</i>
	Mean	Mean	b
Type			
Mutual Consent	0.748	0.400	0.35***
With Cause	0.249	0.101	0.15***
Judicial	0.867	0.860	0.01
Admin	0.133	0.140	-0.01
Characteristics			
Female Initiated	0.138	0.264	-0.13***
Male Initiated	0.109	0.218	-0.11***
Both Initiated	0.750	0.464	0.29***
Alimony Kids	0.581	0.513	0.07***
Alimony Spouse	0.068	0.043	0.03***
Alimony Kids and Spouse	0.058	0.034	0.02***
Has Child	0.871	0.854	0.02***
Children	1.921	1.696	0.22***
Marriage length	13.812	14.915	-1.10***
Property			
Shared Property	0.569	0.616	-0.05*
Separate Property	0.265	0.317	-0.05**
Not Specified Property	0.166	0.066	0.10***
Rates			
Divorce Rate per 1,000	0.296	0.414	-0.12***
Marriage Rate Per 1,000	1.869	1.652	0.22***
Death Rate Per 10,000	17.208	18.341	-1.13***
Birth Rate Per 1,000 Women	9.903	7.801	2.10***
Fetal Death Rate Per 1,000 Births	8.716	11.499	-2.78***
N	1,161	247	1,408

SOURCE: INEGI divorce statistics (2005-2016).

Table 3: Robustness Checks on Event Study: Unilateral Reform and Divorce Rates

Specification:	Divorce Rate						
	Per Marriage (1)	Adjac. (2)	Pre-R x Trend (3)	Pre-R x Year (4)	Reform Only (5)	Grouped Pre (6)	Ad. Controls (7)
T=-10	0.015 (0.031)	0.011 (0.018)	0.011 (0.018)	0.035* (0.021)	0.011 (0.020)		0.009 (0.018)
T=-9	0.015 (0.021)	0.010 (0.012)	0.011 (0.013)	0.029* (0.015)	0.011 (0.014)		0.010 (0.012)
T=-8	0.017 (0.022)	0.012 (0.013)	0.012 (0.013)	0.028* (0.015)	0.012 (0.014)		0.010 (0.013)
T=-7	0.012 (0.020)	0.008 (0.012)	0.008 (0.012)	0.026* (0.013)	0.009 (0.013)		0.006 (0.012)
T=-6	-0.009 (0.019)	-0.005 (0.011)	-0.005 (0.012)	0.010 (0.011)	-0.004 (0.012)		-0.006 (0.012)
T=-5	0.004 (0.018)	0.003 (0.011)	0.003 (0.011)	0.018 (0.011)	0.004 (0.012)		0.002 (0.011)
T=-4	-0.003 (0.017)	-0.001 (0.010)	-0.001 (0.010)	0.012 (0.011)	-0.002 (0.011)		-0.003 (0.010)
T=-3	0.011 (0.014)	0.008 (0.008)	0.008 (0.008)	0.016* (0.009)	0.006 (0.009)		0.007 (0.009)
T=-2	0.018 (0.011)	0.011 (0.007)	0.011 (0.007)	0.015* (0.008)	0.010 (0.007)		0.010 (0.007)
T=0	0.028* (0.016)	0.018* (0.010)	0.018* (0.010)	0.018* (0.010)	0.018* (0.010)	0.015 (0.011)	0.017* (0.010)
T=1	0.095*** (0.029)	0.059*** (0.019)	0.058*** (0.018)	0.054*** (0.017)	0.056*** (0.018)	0.055*** (0.017)	0.059*** (0.018)
T=2	0.139*** (0.039)	0.085*** (0.025)	0.085*** (0.024)	0.078*** (0.024)	0.083*** (0.025)	0.082*** (0.024)	0.085*** (0.025)
T=3	0.163*** (0.032)	0.099*** (0.021)	0.099*** (0.020)	0.087*** (0.019)	0.099*** (0.020)	0.097*** (0.020)	0.098*** (0.021)
T=4	0.198*** (0.036)	0.121*** (0.024)	0.121*** (0.023)	0.105*** (0.022)	0.121*** (0.022)	0.120*** (0.024)	0.121*** (0.022)
T=5	0.220*** (0.037)	0.134*** (0.024)	0.133*** (0.023)	0.100*** (0.020)	0.134*** (0.024)	0.133*** (0.025)	0.134*** (0.024)
T=6	0.256*** (0.066)	0.154*** (0.041)	0.154*** (0.040)	0.114*** (0.037)	0.152*** (0.040)	0.154*** (0.042)	0.154*** (0.039)
T=7	0.260*** (0.065)	0.156*** (0.040)	0.156*** (0.039)	0.112*** (0.038)	0.156*** (0.041)	0.156*** (0.040)	0.157*** (0.038)
T=8	0.217*** (0.028)	0.130*** (0.017)	0.129*** (0.016)	0.077*** (0.022)	0.129*** (0.018)	0.131*** (0.016)	0.132*** (0.018)
T=9	0.212*** (0.054)	0.124*** (0.030)	0.124*** (0.030)	0.061* (0.031)	0.124*** (0.033)	0.126*** (0.026)	0.126*** (0.028)
T=10	0.173*** (0.055)	0.101*** (0.033)	0.100*** (0.032)	0.041 (0.035)	0.099*** (0.033)	0.104*** (0.029)	0.104*** (0.030)
N	1,536.00	1,536.00	1,536.00	1,536.00	1,248.00	1,536.00	1,536.00
R-sq	0.92	0.91	0.91	0.92	0.90	0.91	0.91
Mean Dep. Var.	0.48	0.29	0.29	0.29	0.31	0.29	0.29
Time FE	X	X	X	X	X	X	X
State FE	X	X	X	X	X	X	X
State x Time	X	X	X	X	X	X	X
State x Time-sq	X	X	X	X	X	X	X

NOTES: Coefficients are event-study dummy variables, β_m , from a weighted least squares estimation of Equation 1. The period before the reform (-1) is the excluded period. Each period (T) represents a quarter-year. The divorce rate is reported per 1,000 persons over age 15. Fixed effects are included for at state level; the quarter, year, and quarter-year; linear state-by-quarter-year time trends; quadratic state-by-quarter-year time trends. Robust standard errors are clustered at the state level with significance levels at the 10, 5, and 1 percent. *Per marriage* indicates the divorce rate per married person over age 15. To create this variable we follow [Wolfers \(2006\)](#) and divide the divorce rate by the proportion of adults over age 15 in a state that are married in each year. This calculation is done using the IPUMS data for Mexico in 2000, 2010, and 2015. *Adjac. Controls* for the percentage of neighbors who adopt unilateral divorce legislation. *Pre-R* indicates the proportion of adults who are divorced in the IPUMS data in 2000. *Pre-R x Trend* is interacted with a linear trend. *Pre-R x Year* indicates the percentile (0-20,20-40,40-60,60-80,80-100) of ever divorced rate in 2000 interacted with year fixed effects. *Reform Only* indicates reform states. *Grouped Pre* groups all periods before time zero as the pre-adoption period. *Ad. Controls* adds controls for the death rate, the marriage rate, the birth rate, and the fetal death rate in each state.

SOURCE: INEGI divorce statistics.

Table 4: Event Study: Unilateral Reform and Divorce Rates

Specification:	EVENT STUDY: DIVORCE RATE			
	No State FE (1)	Basic (2)	Linear (3)	Quadratic (4)
T=-10	0.054 (0.047)	-0.000 (0.013)	0.026** (0.011)	0.011 (0.018)
T=-9	0.033 (0.044)	0.008 (0.009)	0.019** (0.008)	0.010 (0.012)
T=-8	0.036 (0.043)	0.009 (0.010)	0.019* (0.009)	0.012 (0.013)
T=-7	0.029 (0.043)	0.006 (0.009)	0.014 (0.008)	0.008 (0.012)
T=-6	0.017 (0.043)	-0.008 (0.009)	-0.001 (0.008)	-0.005 (0.011)
T=-5	0.020 (0.042)	0.003 (0.009)	0.008 (0.009)	0.003 (0.011)
T=-4	0.016 (0.046)	-0.002 (0.010)	0.002 (0.009)	-0.001 (0.010)
T=-3	0.033 (0.044)	0.004 (0.008)	0.009 (0.008)	0.008 (0.008)
T=-2	0.028 (0.043)	0.011* (0.006)	0.013** (0.006)	0.011 (0.007)
T=0	0.032 (0.044)	0.018* (0.010)	0.017* (0.010)	0.018* (0.010)
T=1	0.076 (0.047)	0.060*** (0.020)	0.058*** (0.019)	0.058*** (0.018)
T=2	0.097* (0.050)	0.091*** (0.025)	0.085*** (0.024)	0.085*** (0.024)
T=3	0.105** (0.048)	0.107*** (0.021)	0.099*** (0.020)	0.099*** (0.020)
T=4	0.130** (0.053)	0.127*** (0.026)	0.120*** (0.023)	0.121*** (0.023)
T=5	0.160*** (0.057)	0.153*** (0.027)	0.139*** (0.024)	0.134*** (0.024)
T=6	0.186** (0.070)	0.175*** (0.038)	0.159*** (0.035)	0.154*** (0.040)
T=7	0.186*** (0.067)	0.182*** (0.034)	0.163*** (0.032)	0.156*** (0.039)
T=8	0.153** (0.058)	0.160*** (0.022)	0.140*** (0.015)	0.129*** (0.016)
T=9	0.143** (0.052)	0.150*** (0.014)	0.133*** (0.013)	0.124*** (0.030)
T=10	0.097* (0.050)	0.147*** (0.025)	0.122*** (0.018)	0.101*** (0.032)
N	1,536.00	1,536.00	1,536.00	1,536.00
R-sq	0.26	0.86	0.90	0.91
Mean Dep. Var.	0.29	0.29	0.29	0.29
Time FE	X	X	X	X
State FE		X	X	X
State x Time			X	X
State x Time-sq				X

NOTES: Coefficients are event-study dummy variables, β_m , from a weighted least squares estimation of Equation 1. The period before the reform (-1) is the excluded period. Each period (T) represents a quarter-year. The divorce rate is reported per 1,000 persons over age 15. Fixed effects are included for at state level; the quarter, year, and quarter-year; linear state-by-quarter-year time trends; quadratic state-by-quarter-year time trends. Robust standard errors are clustered at the state level with significance levels at the 10, 5, and 1 percent.

SOURCE: INEGI divorce statistics.

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A Appendix: For Online Publication

A.1 Labor Supply

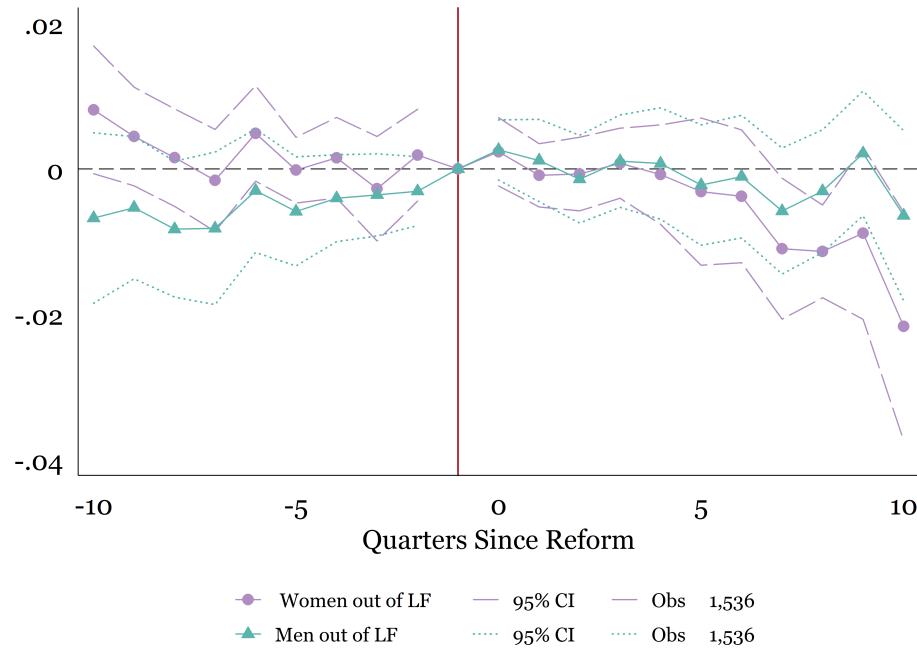
There are many studies that analyze how female labor force participation responds to unilateral divorce legislation. For example, Stevenson (2008) shows that women increased their labor force participation as a result of the wave of unilateral divorce laws in the United States. This increased labor supply indicates that both married and unmarried women are insuring themselves against divorce by remaining active in the labor force. The liberalization of divorce prevents women from participating in household production which has little market value. As the division of spousal labor force participation and household tasks might vary significantly by country, these results from the United States cannot be immediately applied to the Mexican context. Furthermore, because the United States reforms occurred in the 70s, the cultural context might have more generally shifted in the past 40 years. With more women participating in the labor force generally, there might be a muted effect of the divorce legislation.

In Figure B.I Panel A we consider how the unilateral reform affects both male and female employment. Before and immediately after the reform, there does not appear to be a shift in female or male employment. About 18 months post-reform female employment does appear to increase. Instead of anticipating or immediately reacting to the reform, women increase their employment with a lag. This effect is either a delayed insurance response, where women observe the lower cost to divorce over time and then enter the labor force. Alternatively, women undergoing a divorce enter the labor force upon failing to receive adequate alimony. The response is not definitive, however, and the results with benefit from additional years of data.

Figure B.I: Effect of Reform on Labor Force Participation
 PANEL A: EMPLOYMENT



PANEL B: OUT OF LABOR FORCE



NOTES: Plotted coefficient are event-study dummy variables, β_T , from a weighted least squares estimation of Equation 1. Each plotted point represents the time before and after the unilateral reform, excluding the period just before adoption $T = -1$. Weights are based on the state population over age 15. Solid lines represent point estimates. Dashed and dotted lines display the 95 percent confidence intervals. The divorce rate is reported per 1,000 persons over age 15. Fixed effects are included for at state level; the quarter, year, and quarter-year; linear state-by-quarter-year trends; quadratic state-by-quarter-year time trends. Controls include annual state economic activity and the state-level unemployment rate. Robust standard errors are clustered at the state level with significance levels at the 10, 5, and 1 percent.

SOURCE: INEGI divorce statistics.