The Impact of No-Fault Unilateral Divorce Laws on Divorce Rates in Mexico

LAUREN HOEHN-VELASCO*[1] and JACOB PENGLASE†[2]

[1]Bryn Mawr College
[2]Analysis Group

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Between 2008 and 2017, Mexican states introduced no-fault unilateral divorce, which allowed married individuals to seek a divorce without the consent of their spouse. In this paper, we exploit variation in the state-level adoption of the reforms to investigate the consequences of the divorce law liberalization Using an event-study design, our results suggest that no-fault divorce dramatically increased divorce rates in the three years following the reform. We next consider how the reform impacted divorce filings and divorce settlements. We find that no-fault divorce increased individual divorce filings, especially among women, and lowered the frequency of spousal alimony payments.

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*Bryn Mawr College (e-mail: lvelasco@brynmawr.edu)

†Analysis Group (e-mail: jacob.penglase@analysisgroup.com). The views presented in this paper are those of the author and do not reflect those of Analysis Group or its clients.

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1 Introduction

How does the liberalization of divorce laws affect divorce rates? A large body of research has documented an increase in divorce rates following the passage of no-fault unilateral divorce laws in the United States and Europe (Friedberg, 1998; Wolfers, 2006; González and Viitanen, 2009; Kneip and Bauer, 2009), but few studies have examined whether these findings can be generalized to a developing-world context such as Mexico. In comparison to the United States and Europe, Mexico suffers from weakly enforced alimony laws, unreliable social support systems, and fewer labor market opportunities for women. As a result, women's options outside of marriage may be limited. These differences suggest that policymakers cannot immediately apply existing results from the United States and Europe to Mexico. We fill this gap in the literature by studying whether the introduction of unilateral divorce[1] in Mexico led to an increase in divorce rates. We then extend the existing literature to consider whether the legislation affected the gender of the filing spouse and the distribution of alimony payments and child support.

Obtaining a divorce in Mexico has historically been an arduous process. State-level family laws offered limited legal grounds for divorce, and traditionally, mutual consent was required to obtain a divorce. 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 2017, these reforms had spread to the majority of Mexican states. This legislation dramatically altered the entire divorce process as one spouse could secure a divorce without the need to prove cause or obtain consent.

In this paper, we exploit exogenous variation in the timing and adoption of no-fault divorce legislation throughout Mexico. We combine divorce legislation dates from state-level family and civil codes with aggregated state-level divorce filings provided by the Instituto Nacional de Estadística y Geografía (INEGI). This novel data set includes couple-level divorce characteristics covering all divorces in Mexico from 2005-2017. The INEGI provides the type of divorce, the cause for divorce, who filed the divorce, the existence of alimony and child support payments (not the amount), as well the couple's demographic information. We use this data to study the direct effects of the reform on the decision to divorce, as well as indirect effects on divorce settlements.

[1] Throughout this study, we use the terminology no-fault divorce interchangeably with unilateral divorce.

We begin by analyzing state-level divorce rates using a flexible event-study design which compares 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. These results are robust to the inclusion of state-specific linear and quadratic time trends. Moreover, there is no evidence that couples anticipated the reforms in the periods leading up to the legislation by postponing divorces. Our results are consistent with the short-run findings in the United States (Wolfers, 2006) and Continental Europe (González and Viitanen, 2009; Kneip and Bauer, 2009).[2]

Next, we examine the relationship between divorce liberalization and the characteristics of the spouse filing for divorce. More specifically, we test how the introduction of unilateral divorce affected filings by the gender and employment status of the initiating person. Our results suggest that women became significantly more likely to file for divorce under the unilateral no-fault regime. Moreover, we show that while divorce filing rates increased regardless of employment, the increase was more substantial for working spouses.

Outside of the direct effects on the frequency and type of divorce, the legislative reforms may have also affected divorce settlements. 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 obtain their consent to divorce. As a result, men who instigate the dissolution of the marriage post-reform are likely to have lower alimony payments to their wives (Peters, 1986). Moreover, women who terminate their marriage may appear less sympathetic throughout the judicial process, resulting in fewer alimony payments. Our empirical results largely support these hypotheses, as the share of divorces awarded spousal alimony payments immediately declines post-reform. While the spouses may have lower income transfers post-reform, children are protected from this loss of income as child support payments are granted in all divorces with minor children. In the post-reform period, it appears as though this income is redistributed from the spouse to the children.

Related Literature. 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

[2]Because the Mexican reform is recent, unlike related studies, we are unable to determine whether the increase in divorce rates persists in the long run. We, therefore, are unable to either confirm or reject the reversal of the increase in Mexican divorce rates (Wolfers, 2006). At the end of Section 5.1, we attempt to determine whether the increase in divorce rates varies by marriage length, suggesting pent-up divorces from poorly matched couples. If this were the case, we could infer that the divorce rate would decline over the long run, but we do not find strong evidence for this effect.

impact of the no-fault reforms on divorce rates in the United States and Continental Europe (Friedberg, 1998; Wolfers, 2006; González and Viitanen, 2009; Kneip and Bauer, 2009), there have been few studies considering the introduction of no-fault divorce laws outside of developed countries. The legislation change in Mexico is also relatively novel, especially for Latin America. Mexico provides one of the few cases outside of the United States where there is has been state-by-state variation in the adoption of more liberal divorce legislation. While there have been other studies considering the effect of divorce in Latin American (Loreto, 2011; Gallegos and Ondrich, 2017) these studies focus on the binary ability to divorce, rather than easy access to separation. Second, we are one of the first studies to document the effect of unilateral divorce on the divorce process. The unique micro-level divorce dataset from Mexico provides a rich set of divorce characteristics including, spousal characteristics, filing characteristics, and sentencing decisions. These variables allow us to determine the short-run effects of no-fault divorce on divorce characteristics.

What is the expected effect of divorce legislation on divorce rates? Becker et al. (1977) and Becker (1981) apply the Coase theorem to divorce and hypothesize that divorce rates should remain unchanged with the introduction of more liberalized divorce laws (i.e., the Becker-Coase theorem). Instead, bargaining power is simply reallocated within the marriage towards the spouse with the improved outside option. In practice, this result is unlikely to hold due to violations of several of the Coase theorem assumptions. Specifically, costless bargaining, transferable utility before and after the marriage, perfect information, and well-defined property rights (e.g., if children are treated as public goods) do not appear to be realistic assumptions in the context of divorce. More recent theoretical work by Chiappori et al. (2015) has further examined potential violations of the Becker-Coase theorem, focusing on the importance of transferable utility and the existence of public goods within the marriage. While our paper is empirical, we present a simplified version of the Chiappori et al. (2015) model in the Appendix in order to better understand the sign and magnitude of our empirical results. The main implication of the model is that the more uneven the allocation of income and wealth is upon divorce, and the greater the difference in utility between the spouses within the marriage, the larger the increase in divorce rates when switching from a mutual consent to a unilateral divorce regime.

In addition to the theoretical literature examining the Becker-Coase theorem, a large body of empirical work has tested the theorem's validity. This research has focused primarily on divorce liberalization in the United States. Peters (1986) results suggest that divorce rates were unaffected by state-level legal changes, confirming the predictions of the Coase theorem. Subsequently, Allen (1992) finds that there was an

increase in divorce rates following reforms, but these findings were then again contested by Peters (1992). Friedberg (1998) attempted to settle the discussion between Allen and Peters by adding state-specific time trends as well as state and year fixed effects. Friedberg (1998) attributes one-sixth of the rise in divorce rates to unilateral reforms. Wolfers (2006) then reopened the debate and proposed that conclusions from the difference-in-difference studies, with a focus on Friedberg (1998), were somewhat misleading. Using an event study, Wolfers (2006) finds only a temporary rise in divorce rates. Fifteen years after the reform, divorce rates are lower than their pre-reform levels. Overall, the debate in the United States has not reached a consensus.

Other related work, including González and Viitanen (2009) and Kneip and Bauer (2009), has extended these U.S. state-level analyses to a cross-country study in Europe. González and Viitanen (2009) finds a 20% rise in divorce rates due to legal unilateral reforms. Kneip and Bauer (2009) shows a similar increase in divorce rates with de facto unilateral divorce.

Within the literature on divorce legislation in Mexico, Lew and Beleche (2008) and Garcıa-Ramos (2017) have each considered changes to Mexican divorce laws. Lew and Beleche (2008) documents the effect of the 1990-2000 Mexican divorce reforms on divorce rates. These reforms introduced divorce *with cause* and expedited mutual consent divorce. We build upon Lew and Beleche (2008) by focusing on unilateral no-fault divorce beginning in 2008. Another closely related study, Garcıa-Ramos (2017), focuses on the same set of reforms for two Mexican states. Garcıa-Ramos (2017) shows that reducing the cost of divorce through no-fault reform lowers male-to-female physical, sexual, emotional, and economic violence. Garcıa-Ramos (2017) also presents descriptive results suggesting that the unilateral legislation had an immediate effect on divorce rates.[3]

We make a second contribution to the divorce literature by being one of the first studies to examine the effect of unilateral divorce laws on the characteristics of the filling spouse. While past work has examined the determinants of which spouse files for divorce (Brinig and Allen, 2000; 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; Voena, 2015; Chiappori et al., 2017).

The remainder of this paper is organized as follows. We first provide a back-

[3]Garcıa-Ramos (2017) finds that the divorce rate grew by 22% in Mexico City and 38% in Hidalgo.

ground of divorce reform in Mexico throughout 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 5.1, where we analyze the effect of no-fault divorce laws on divorce rates. Then, we perform robustness checks in Section 5.2. In Section 6, we present additional results pertaining to divorce filings and divorce settlements. Section 7 concludes.

2 The Mexican Context

Cultural Context

As suggested in the literature review, findings from the U.S. and Europe may not apply to Latin America, where there are distinct socio-economic opportunities and cultural norms. In particular, social norms surrounding divorce may be considerably different in countries placing a higher emphasis on religion. Rather than speculate on cultural differences surrounding divorce and religion, we use the most recent wave of the *World Values Survey* to compare views on divorce, religion, and abortion. We include abortion because it generally corresponds with religious expression. Figure 1 shows the variation in cultural values, on a scale from zero to one, between two Latin American countries, three European countries, and the United States. As expected, there are strong correlations between the global regional values placed on abortion, religion, and divorce.

The United States, at the top, appears to have the most diverse views, with the country-level average hovering around 0.5 for all three categories. Latin America has the lowest approval of abortion, moderate views on the acceptability of divorce, and places the highest value on the importance of religion. Europe is more liberal than both Latin America and the United States, strongly approving of the ability to divorce, and placing little emphasis on religion.

Based on these values, it is clear that we may expect unilateral divorce laws to interact with Latin American social norms in a different way than they have in a country like the United States. Thus, the results discussed in the literature review are not clearly applicable to the Mexican context. Based on cultural values, we may expect a more muted divorce response in Mexico than in previous work. Further, Mexico has much lower divorce rates, a mean of 1.2 per 1,000 persons, versus 2.0 in Europe,[4]

[4] Eurostat 2019.

and 3.2 in the United States,[5] which would suggest that Mexican divorce rates may respond quite differently.

Divorce in Mexico

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 when states instituted 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.[6] Despite a trend towards higher divorce rates, 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 the need to prove 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.[7]

Following the passage of no-fault divorce in 2008, the possible divorce types in Mexico are outlined as follows:

[5] CDC–National Marriage and Divorce Rate Trends.

[6] Most of these reforms were implemented between 1990 and 2008.

[7] Table 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 2017, the last year of our sample.

1. ADMINISTRATIVE: 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 in 15 days.

2. JUDICIAL: 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 divorces:

   a) WITH CAUSE: Where possible causes for divorce include domestic violence, abandoning the home, incurable illness, or adultery (see Table A2).
   b) MUTUAL CONSENT: Both spouses agree to divorce.
   c) UNILATERAL: 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. The subsequent divorce legislation from 2008 to 2017 resulted in the introduction of no-fault unilateral divorce. To the best of our knowledge, there were no other changes to divorce law during this time period.

3 Data

INEGI Divorce and Marriage Records

We use national divorce microdata from the Instituto Nacional de Estadística y Geografía (INEGI). The data includes an individual record for each divorce throughout Mexico over 2005-2017. These characteristics provided by INEGI for each divorce are relatively detailed and include the geographic location of the divorce, the type of divorce, the cause for divorce, who filed the divorce, the incidence of alimony payments, and the couple's demographic information. We summarize the details of the information provided by the INEGI in Appendix Table A2.

The data includes two separate dates for every divorce, including when the divorce suit was *filed* and when the divorce was *sentenced*.[8] To measure the timing of each divorce, we default to the sentencing date. We choose the sentencing date over the filing date as the filing date may not be reflective of how many divorces occurred

[8] After 2015, the data also includes the date the divorce was executed. However, because this information was not available earlier, we do not utilize the execution date as our main date variable.

in each quarter and instead is a better representation of divorce demand. We do utilize the difference between the two dates to capture the length of time spent in divorce proceedings. Observing the difference between filing and sentencing date allows us to measure the time cost to each divorce, which averages about six months overall. We also use time spent in divorce proceedings as an outcome in Table A3, and show that the length of the divorce declines after the reform.

The INEGI data also provides information on the characteristics of the marriage. In particular, we know when the couple became legally married and where they registered their marriage. Using these dates, we can calculate the length of the marital agreement, and test whether marriage length affects divorce decisions. The INEGI data additionally provides detailed information on where the divorce occurred, including the state the divorce was filed, the state of residency for each spouse, and the state where the marriage was registered. This geographic information allows us to observe whether individuals are moving across state lines to obtain divorces in more liberal states.

To define the divorce type, the INEGI provides both the divorce procedure, judicial versus administrative, as well as the cause for divorce. We use the cause for divorce described by the INEGI to identify occurrences of unilateral divorce. This variable includes 28 causes of divorce, including mutual consent and unilateral divorce. For the detailed causes of divorce see Appendix Table A2.

The INEGI also contains detailed data on marriages from 1993-2017. These marriage records are similar to divorce records and include each marriage that occurred in Mexico, along with the characteristics of the marriage. Beginning in 2009, the INEGI began to record 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 among both spouses. Unfortunately, the property regime is only included in the marriage data, and not the divorce data.

Divorce Legislation Data

To measure the timing of the reform, we collect the quarter-year passage of unilateral no-fault divorce from the state-level civil and family laws.[9] Table 1 shows the

[9]We frequently rely on popular press articles covering the reform to measure the precise dates that the law passed. We corroborate our findings with the reform dates provided in Mendez-Sanchez (2014) and Garcıa-Ramos (2017). We also have not found evidence suggesting that states reformed their abortion law, beyond redefining life to exclude abortion (Singer, 2018).

year the legislation passed and the location of the divorce legislation in the state's legal code. A distinction is made between states that record divorce law in the civil codes versus family codes. There are two notable issues with the divorce reform data.

The first limitation is that the legal dates of the reform frequently differ from the observed dates of no-fault unilateral divorce in the INEGI data. We present this issue by separating *de jure* years from *de facto* years in Table 1.[10] Comparing across *de facto* years and *de jure* years, it is clear there are discrepancies between when a state passed the reform and when an individual could exercise the right a no-fault divorce in practice. The blue text indicates when there is a mismatch by year. There are 14 states that mismatch years. An additional seven states are off by one quarter (but match years),[11] and seven more states match years but the dates differ by more than one quarter.[12] Only four states exactly match between *de facto* dates and *de jure* dates, suggesting an immediate implementation of no-fault divorce in these states.[13] For our main analysis, we rely on the observed *de facto* dates rather than the *de jure* legal reforms. We default to the observed *de facto* dates because we are most interested in when states allowed individuals to obtain a unilateral divorce, not when the states put the legislation on the books. In a robustness check, we also check the *de jure* dates to see if the results hold (see Table 3).

The second limitation of the data is that of the 32 states that have adopted a *de jure* unilateral practice, 20 did so in 2015 or later. Given our sample period ends in 2017, this is somewhat concerning. However, because we observe quarter-level data, there is enough variation to identify the effect. This shorter panel remains a limitation of this study and provides an opportunity for future research.

Economic Data

We aggregate the individual divorce and marriage records into state-level data and combine the records with INEGI quarterly state-level data on employment and population from the Encuesta Nacional de Ocupacion y Empleo (ENOE). We further add an INEGI computed measure of state economic activity[14] to control for economic conditions that might influence the divorce rate or marriage rate in individual states

[10] In the *de jure* column, states that do not show evidence of having passed unilateral divorce as of 2017 have blank years.
[11] These states include Aguascalientes, Baja California Sur, Colima, Mexico City, Nayarit, Sinaloa, an Zacatecas.
[12] States include Guerrero, Hidalgo, Morelos, Oaxaca, Sonora, Veracruz, and Yucatan.
[13] The four matching states include Coahuila, Mexico, Tlaxcala, and Puebla.
[14] Indicator Trimestral de la Actividad Economica Estatal.

at particular times. In our primary analysis, we rely on controls, including the unemployment rate and INEGI's measure of state economic conditions.

Summary Statistics and Trends

Table 2 displays summary statistics of the divorces data for divorces filed between 2005 and 2017. Panel A shows the original microdata with the summary statistics separated by the type of divorce. For non-unilateral divorces (i.e., mutual consent and with cause), 13.0 percent are initiated by the woman, 10.1 percent by the man, and 76.6 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, 15.6 years versus 13.8, an almost two-year difference. Finally, marriages without children are significantly more likely to end in unilateral divorce relative to non-unilateral divorce. Summary statistics for the quarterly state-level aggregates of the divorce data are shown in Panel B of Table 2.

Figure 2 shows the divorce rates just prior to the 2008 reform in Mexico City. There is substantial variation across state-level pre-reform divorce rates; The lowest state divorce rate is 0.06, while the highest has a divorce rate of 0.48. There also appears to be some evidence suggesting regional clustering of divorce rates, which would imply that social norms may differ throughout Mexico. We attempt to address any contamination by regional social norms in our robustness checks.

In Figure 3, we plot the Mexican divorce rate across time, along with the divorce rate by the type of divorce. The blue line represents the total divorce rate and the causes–unilateral, mutual consent, and with-cause divorce–are shown in purple, green, and orange (respectively). Two 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. Second, there appears to have been a steady decline in divorce with cause and mutual consent divorces across Mexico.

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 individual states shown in Figure 4. On the graphs, the vertical lines indicate whether the *de jure* law has been put in place with the dotted line and the *de facto* reform with the solid line. Beginning with the passage of *de facto* unilateral divorce, 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 fell to almost zero.

The decline in by-cause divorces makes intuitive sense, given that individuals no longer need to provide a reason to divorce. However, the stagnation of mutual consent divorces is somewhat puzzling, especially because there is state-by-state variation. There are two immediate reasons for mutual consent divorce remaining a popular option in certain states. First, a portion of states maintain mutual consent divorce due to the presence of *administrative* divorce. The presence of administrative divorce differs between states. Of the 32 states, 27 states utilize administrative divorce. Administrative divorce is appealing to couples as it tends to be a quicker process (15 to 30 days) than filing for judicial divorce, which takes at least one month. While administrative divorce can be more expensive, judicial divorce often ends up more expensive due to legal fees.[15] Due to the ease of administrative divorce, it still appears to be a popular option post-reform.

A second reason for maintaining mutual consent divorce is the state-level differences in divorce requirements. For example, while Hidalgo is a state that fails to reduce the mutual consent divorce rate, it does not have administrative divorce as an option for couples. Instead, in Hidalgo, mutual consent divorces have lower requirements to obtain a divorce than other divorce types. For instance, couples are not required to be married for a certain length of time in order to obtain a mutual consent divorce (García-Ramos, 2017). This specification is unique to Hidalgo, but it highlights the discrepancies between state-level legislation. These state-level differences in the divorce process are not ideal, but to address any concern, we use state-level fixed effects and state-level trends in our analysis that should account for historical differences between states.[16]

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 *quarterly* changes in divorce rates before and after the reform using a flexible event study.

[15] García-Ramos (2017) finds "the cost of registering an administrative divorce in Mexico City is 1,050.00 Mexican pesos, while a judicial decree 208.90 (SEFIN, 2016). However, once legal fees have been taken into account, the overall cost of an administrative divorce is usually lower than that of a judicial divorce."

[16] For more on historical state-level differences in divorce laws, see Lew and Beleche (2008) and García-Ramos (2017). Both papers detail the causes for divorce, the divorce process, and whether the state includes administrative divorce.

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:

$$\text{Divorce Rate}_{st} = a_s + \eta_t + \phi_s t + \pi_s t^2 + \sum_{Q=-10}^{10} \beta_Q \, \text{Unilateral}_{sQ} + \epsilon_{st} \tag{1}$$

where Divorce Rate$_{st}$ is defined as the number of divorces divided by the population over age 15 in state s during quarter-year t =2005 Q1, ..., 2017 Q4. 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_{jst}. Baseline 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$_{sQ}$. Q represents the period relative to the reform and covers ten quarters before and after the reform.[17] The quarter before the reform, $Q = -1$, 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, $Q = 1, 2, ...10$, which capture the changes in divorce rates in each quarter following 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 5 plots the coefficients from the event-study

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

specification (Equation 1) for quarter Q before and after the reform. Each plotted line 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 $Q = -1$. 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: (i) the blue line shows the estimates without any trend, (ii) the purple line adds a linear trend, and (iii) the yellow line adds a quadratic trend. All three plotted estimations show a clear rise in divorce rates following the adoption of unilateral divorce legislation.

The results suggest that the introduction of no-fault divorce laws yielded a steady increase in the divorce rate for treated states. In the subsequent year ($Q = 3$), the divorce rate increased by 0.085 per 1,000 adults relative to period $Q = -1$. After two years ($Q = 7$), the divorce rate increased by 0.13 per 1,000 adults. These estimates show that the introduction of the unilateral reform raised divorce rates substantially. Based on an average quarterly divorce rate of 0.3, the coefficients suggest that the post-reform divorce rate increased by between 28 percent ($T = 3$) and 43 percent ($T = 7$). The rise in divorce rates persists for the three years considered following the reform. The coefficients also reveal that couples did not anticipate the reform by postponing divorces until after the legislation, as the coefficients leading up to the reform are positive and insignificant.

For completeness, we show the point estimates from Figure 5 in Appendix Table A1. Each row reports the coefficients on the event-study dummy variables from Equation (1) for period Q, 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.

We perform several initial checks on the baseline results across Columns (5)-(8). To begin, we show the unweighted results Column (5). Here the effect is slightly larger than the baseline, suggesting that the weights may be accounting for smaller states having more substantial increases in divorce rates. Then, over Columns (6)-(8), we make several modifications to our set of control variables. Column (6) shows the main results excluding all controls. Column (7) presents the findings with lagged instead of contemporaneous controls. We use lagged instead of contemporaneous measures of state economic activity to assuage concern over the controls being actual outcomes

of the reform. In Column (8), we add supplementary controls including: the state-level deaths rates, marriage rates, birth rates, and fetal death rates. Through all three adjustments, the set of controls chosen has little effect on the estimated impact, and the results remain similar to Table A1 Column (4).

The divorce rate findings are consistent with recent theoretical work by Chiappori et al. (2015) that demonstrates the breakdown of the Becker-Coase theorem in practice. Chiappori et al. (2015) use a collective household model of marriage and divorce to argue that the Becker-Coase requirement of transferable utility will likely break down under joint consumption in the marriage. We illustrate this point using a simplified version of the Chiappori et al. (2015) model in Appendix Section C. Our model suggests that under certain conditions, one spouse may prefer a divorce, while the other spouse may prefer to remain married. Under a mutual consent divorce regime, even though one spouse desires a divorce, no separation will occur. By contrast, under the unilateral divorce regime, one spouse can dissolve the marriage without the consent of the second. Traditionally, the Becker-Coase theorem has suggested that the spouse who wants to remain married can compensate their partner to incentivize them to stay. However, our model shows that this compensation may fail due to the division of marital assets, or due to large differences in spousal valuation of the marriage.

Our results in the Mexican context are also generally consistent with past empirical work, such as Wolfers (2006). First, we see a similar increase in divorce rates in the year immediately following the introduction of no-fault divorce. However, the percentage increase in the divorce rate is almost threefold larger than what occurred in the United States 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.[18] While the percentage effect is higher, the average overall divorce rate in Mexico is much lower than the United States (1.2 versus over four divorces per 1,000). If we instead compare the estimated annual increase in the divorce rate to the related literature, our results are more similar in magnitude. Our estimated annual increase is 0.285, which is similar to both the results in the United States and Europe. Wolfers (2006) concludes that divorce rates increased by between 0.2 to 0.3 divorces per 1,000 persons in the wake of the reform. Kneip and Bauer (2009) finds that European countries experienced an increase by roughly 0.3 per 1,000 persons.[19]

Second, Wolfers (2006) concludes that the higher divorce rate does not persist

[18] To properly compare the magnitude of our estimates to related research, the coefficients must be converted from quarterly estimates into annual terms.

[19] Note that we find a slightly higher effect than (González and Viitanen, 2009), who estimate the increase in the divorce rate to be between 0.23 to 0.44 divorces per 1,000 married people. Our annual estimates would predict an increase in the divorce rate of 0.5 per married person.

over time, and returns 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 shorter length of our panel, we cannot yet determine if there is a lasting effect. Despite our short panel, we do attempt to determine whether the increase in divorce rates is due to pent-up demand for divorces from poorly matched couples. If pent up demand was entirely driving the increase in the divorce rate, we would expect the divorce rate to return to baseline (or even lower) after several years (Wolfers, 2006). To test pent-up demand, we consider whether the results vary with the duration of the marriage. If longer-married couples experience a larger increase in divorce rates, then this would provide evidence of pent-up demand for divorces from poorly matched couples.

Figure 6 shows the results. In Panel A, couples married 0-10 years divorce at roughly the same rate as those married 10-20 years. The divorce rate is slightly lower for couples married between 20-30 years and much lower for marriages longer than 30 years. In Panel B, we split the effect into 5-year marriage brackets, including marriages that were shorter than five years and marriages that lasted five to 10 years. These five-year groups experience a similar increase in divorce rates, but the increase in the divorce rate is slightly lower for the five-year marriages. As the divorce rate still significantly increased for shorter marriages, it appears that pent-up demand for divorces cannot completely explain the increase in divorce rates. However, the fact that 5-year marriages have a slightly lower increase than five-to-ten-year marriages (the orange line) suggests that pent-up demand may still play a role in the higher divorce rates. Our inability to definitively conclude whether the increase in divorce rates is due to pent-up demand is one of the main limitations of this study. After more time has passed, researchers will be better able to clarify this point.[20]

5.2 Robustness Checks

Adjustments to Main Specification

We test the robustness of our baseline divorce rate results using several adjustments to our primary specification. First, we examine the sensitivity of our findings to changes in the stock of married individuals. While we show that the divorce reform does not affect marriages rates (Figure B.II), an increase in divorce rates may still

[20] Another check that would be ideal would be to test information on whether the couple was legally separated before the legislation. Because we do not have this information, we instead rely on the marriage length.

reduce the population "at-risk" of divorce by lowering the stock of married couples through excess divorce rates. This declining number of married couples would put fewer individuals "at-risk" of divorce (Rasul, 2005). Thus, using the divorce rate *per marriage* is a more reliable reflection of the population of interest as compared with the divorce rate *per person*. To account for this, we follow Wolfers (2006) and calculate the divorce rate per married person over age 15 instead of looking at divorces per adult over 15.[21]

Table 3 Column (1) shows our preferred specification with the divorce rate per married person. Here the average quarterly divorce rate is much higher for the at-risk population than the general population. The mean is 0.48 divorces per 1,000 married persons versus 0.3 divorces per 1,000 adults over age 15. The effect of the unilateral reform also increases, with an estimated increase in the divorce rate of 0.086 versus the baseline response to the reform of 0.051. Using the "at-risk" population increases the estimated effect of the reform and is plausibly a more precise estimate of the divorce rate per couple rather than divorces per member of the general population.

Next, we attempt to control for the fact that changing regional norms may raise the divorce rates throughout regions of Mexico, and not just in the reform states. This regional effect is a result of the fact that divorce laws affect divorce rates through two channels. First, directly through legal changes, *and* second, through the gradual adjustments to the social stigma surrounding divorce. Social norms around divorce may become more lax following legal changes within a state as divorces become more common. Then, these social norms likely have spillover effects into adjacent non-reform states. Therefore, a legislative change in one state may have the unintended consequence of changing the divorce norms throughout the surrounding states. These changing social norms could then encourage higher divorce rates in control states adjacent treatment states.

Similar to the contamination test in Wolfers (2006) we control for changing social stigmas surrounding divorce using the proportion of neighboring states that have adopted reforms in each quarter. Adding this control adjusts for the social norms throughout regions, even if an individual state had not passed the reform. A non-reform state that is surrounded by reform states may well have higher divorce rates than a non-reform state surrounded by non-reform states. Table 3 Column (2) displays the adjusted specification. The results controlling for the regional social norms are similar to the baseline specification in Table A1 Column (4). As noted by Wolfers

[21] To construct a panel of the married population we take linear averages between IPUMS years 2000, 2010, and 2015. We also use the one year lag, to reflect the stock of marriages at risk of divorce in the prior year. A limitation of this approach is it does not account for the increase in divorce rates after 2015, which is when many of the states reformed their legislation.

(2006), a limitation of this contamination test is that it can only control for regional norms and cannot capture changes in national norms.

Another potential confounding factor is historical state-level social norms. States with higher prior divorce rates may be 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 that could lead to a comparable rise in divorce rates across control states. In Column (3), we adjust our specification to account for this potential regression to the mean. First, we calculate the ever-divorced population in the 2000 IPUMS.[22] Then, we divide states into quintiles based on their 2000 ever-divorced rate and interact these quintiles with year fixed effects. Column (3) shows a slightly different effect than the baseline, with the coefficients indicating 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 muted by the post-reform increase in divorce rates.

Next, in Columns (4)-(5), we make two adjustments to the sample. In Column (4), we limit the pre-period to a grouped combination of all years before the reform. The grouped pre-period more closely matches the specifications in the related literature, but the adjustment has little effect on the results. Then, in Column (5), we present results on a restricted sample that includes only states that have at least ten quarters of post-reform data. The motivation behind this restriction is that the results may be biased by shorter spans of data for later-adopting states. The results in Column (5) suggest the effect is stronger for the states reporting at least post-reform ten quarters. In period zero, the divorce rate significantly increases by 0.049, as compared to the limited change in the baseline estimates. Then, one quarter after the passage of unilateral divorce, the coefficient increases to 0.078 versus the benchmark of 0.051. This higher estimated effect in the continuous series extends through the ten estimated quarters.

Then, in Column (7), we test whether the effect of the reform varies if we use the legal *de jure* dates as an alternative to the baseline results with *de facto* dates. As discussed in the background section, and shown in Table 1, the *de jure* versus the *de facto* reforms differ by at least one quarter for 20 states in the sample. For an additional eight states, the *de jure* and *de facto* dates differ by one quarter. Due to these timing differences, we expect the *de jure* results to be distinct from the baseline *de facto*. We anticipate that there will be a lagged rise in divorce rate due to the time between enacting legal reforms and practicing the reforms. Column (7) shows that as expected, the *de jure* reform dates lead to a slightly small and lagged response. There is no sig-

[22] Wolfers (2006) performs a similar test. We calculate the ever divorced population using the proportion of adults who were ever-divorced in the IPUMS sample.

nificant rise in divorce rates until three quarters after the reform, and the divorce rate is slower to increase through all ten quarters. While the effect is somewhat muted, it is in line with the magnitude of the *de jure* results.

Potential Threats to Validity

In addition to the above robustness checks, there are several potential threats to validity that we have considered. First, Mexico City is a more liberal state than the remainder of Mexico. For instance, Mexico City was the first adopter of the unilateral no-fault legislation and did so nearly three years before other states. Mexico City has also adopted other unique reforms including rights for cohabitating couples through the *Ley de Sociedad de Convivencia* in 2006 and the decriminalization of abortion in 2007.[23] Thus, there are potential unobserved characteristics that are specific to Mexico City that may affect marriage patterns and divorce rates. Particularly, if individuals are incentivized to cohabitate rather than marry, or have access to the termination of unwanted pregnancies, Mexico City may create an upward bias in our estimates. To ensure our results are not driven solely by Mexico City, we present our estimates without Mexico City in Column (7) of Table 3. Encouragingly, the results without Mexico City are slightly stronger than the baseline: we see an increase in the divorce rate of 0.056 excluding Mexico City, versus the benchmark of 0.051 in the first quarter after the reform. This exclusion suggests that the capital city is not inflating the estimated effect.

Second, García-Ramos (2017) suggests that there may have been reforms to the divorce process in Baja California, Chiapas and Quintana Roo as late as 2004. As these states all introduced unilateral divorce in 2014 or later, we do not expect these earlier reforms to influence either the pre-reform or post-reform time period considered. However, this example highlights the historical differences in the state-level requirements for divorce, such as the process for mutual consent divorce in Hidalgo (see discussion in Section 3). To address these past differences, our baseline specification implements state-level fixed effects and state-level time trends, which should control for historical state-level differences. Third, at the federal level, there was an anti-discrimination act published in 2003 as well as changes to family leave policies (Moss, 2018). However, since these changes occurred at the national level, they should uniformly affect the treatment and control groups and not affect the measurement of state-level reforms.

[23] According to our research and García-Ramos (2017), Mexico City is the only area in Mexico where abortion has been decriminalized as of 2017.

A fourth possible concern is that the divorce rate is artificially increasing because non-resident couples cross state lines to acquire a divorce. We test whether the reform affects the state-level share of divorces from non-resident couples in Table A3. Table A3 shows the event study over the proportion divorces where the couple has ties to another state. Column (1) shows the estimates for the share of divorce where one of the spouses reports a residence state that differs from the filing state. Column (2) presents the share of divorces where both spouses are non-residents of the filing state. Column (3) displays the share of divorces where the marriage was registered in a state that is different from the filing state. The results across the three columns suggest that if anything, a smaller share of divorces come from couples in other states. These estimates alleviate the concern that the rise in divorce rates is from divorce-driven migration.

A fifth threat to validity is the passage of *Ley General de Acceso a Una Vida Libre de Violencia* (General Law on Women's Access to a Life Free of Violence) in 2007. This federal law attempted to reduce domestic violence against women, and each state had to adjust their Civil and Criminal Codes to accord with the national legislation (Garcıa-Ramos, 2017). Adoption of this law took time to adopt at the state level, and could potentially improve a women's ability to demand a divorce from her spouse. Thus the state-level differences in timing have the potential to interfere with the passage of unilateral divorce. To adjust for the empowerment effect, in Column (8) of Table 3, we show the estimation with a dummy variable accounting for state-level adoption of this law. The results appear similar to the baseline.[24]

6 Divorce Filings and Settlements

We build upon on the divorce rate results in Section 5.1 by studying several aspects of the divorce process. In Section 6.1, we examine the gender and economic status of the individuals filing for divorce. Then in Section 6.2, we study changes in divorce settlements in the form of alimony payments. Finally, we study the labor market effects of the reforms, as well as any changes in marriage or birth rates in Appendix Section B, but find limited effects in these areas.

[24]State-level dates used are shown in Garcıa-Ramos (2017) Table B1 Column (7)

6.1 Divorce Filings

Before proceeding to the empirical analysis of divorce filings, we briefly discuss several predictions of our theoretical model (Appendix Section C) that are relevant to this analysis. Our model suggests there are two factors in deciding to file for a divorce. First, the decision to seek a divorce depends on the division of assets, both within the marriage and upon receiving a divorce. Spouses will compare their utility across differences in consumption between marital statuses. Individuals will be more likely to initiate a divorce if they have a superior outside option due to favorable property division laws, child support laws, a strong social network, or employment status. Second, the decision to divorce depends on each spouse's relative happiness due to non-material consumption within the marriage. For example, domestic violence may lead the wife to file for divorce unambiguously. In what follows, we examine these implications by analyzing the characteristics of the spouse filing for divorce.

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 than men. In Table 2, we see that wife-initiated divorces are more common and comprise 13.4 percent of divorces versus 10.3 percent for husband-initiated divorces. To test whether the legislation shifts the gender composition of the person filing for divorce, we show divorce filings by gender in Figure 7 Panel A. The purple line corresponds to wife-initiated filings, and the green line shows the husband's filings. Unsurprisingly, we see a gradual rise in individual filings from both wives and husbands. 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, given by the yellow line. From this exercise, we conclude that women may benefit more than men from the law change as they can exit bad matches post-reform without consent or cause.

The findings suggesting that women file at a higher rate than men confirm related findings in Brinig and Allen (2000). A potential reason why women may choose to file for divorce is the ability to claim child support. If couples were separated (but not divorced) before the legislation then these women would have had no legal claim to their husband's income. Thus, obtaining child support may have become easier for separated women as a result of the new divorce laws. Unfortunately, this hypothesis is difficult to test as we do not have data covering separations. Instead, we examine divorce rates segmented by the number of children in the household in Figure 8. The results in Panel A show that the highest rate of individual female filings occurs for women with one child. While this does not confirm that women are filing solely to receive child support, it is possible that a portion of the rise in divorce rates is due to

separated women filing for divorce to obtain child support. If this is the case, then we would expect the increase in divorce rates to subside after the majority of separated couples complete the divorce process. To better understand the validity of this explanation, we later examine the impact of unilateral divorce laws on child support and alimony payments in Section 6.2.

Next, we consider the role of economic status in divorce proceedings. While the available data on the financial situation of the couple is limited, we do observe the employment status of each spouse. As suggested by our model, we expect individuals who are not working to file for divorce relatively infrequently as they should have less attractive outside options. Our results, however, do not necessarily corroborate this hypothesis. Figure 7 Panel B shows the change in the divorce rate by gender for individuals who are not working. Both men and women who are not employed 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 non-working women increased their divorce filings by substantially more than non-working men. This increase suggests women may have a stronger social network to rely on, or that they believe they will be more likely to receive financial support from their spouse. To test whether women who are employed have more financial stability and are less dependent on their husbands, we analyze the difference in divorce rates between employed women and women who are not working. Consistent with this perspective, in Panel C, we see that the divorce rate increases by more for employed women than for women who are not working. Despite the smaller effect for non-working women, both groups of women appear to be increasingly filing for unilateral divorces, with the effect slightly greater for employed women. The results across Panels B and C suggest that the effect of the unilateral reform is not segmented by economic status.

In Panel D, we test the economic status of the couple as a unit. We separate couples into: (i) employed husband and not-employed wife, (ii) not-employed husband and employed wife, (iii) both spouses employed, and (iv) both spouses not employed. Across these four couple types, the divorce rate increases. The most noticeable increase occurs for couples who are both employed, both not employed, or only the husband is employed. There is a slight increase in divorces for couples where the wife is employed, but the effect is muted. This smaller increase in the divorce rate is probably at least in part due to the small number of couples where only the wife works. Similar to the results for women alone, the results from Panels B-D suggest that couples file for divorce, regardless of their economic status. In the language of our model,

this suggests that poor match-specific shocks (e.g., spousal abuse) are what is driving the increase in divorce rates, rather than the quality of each spouses divorce outside option.

6.2 Divorce Settlements

The above results describe how no-fault divorce laws increase divorce filings for women more than men, but these divorce filings do not appear dependent on economic status. We now consider how the legislation affects the outcomes of divorce proceedings by analyzing alimony payments versus child support payments.

Alimony can be thought of as a "bribe" or side payment that one spouse offers the other for the divorce to take place (Becker et al., 1977; Peters, 1986; Oster, 1987). Unilateral divorce removes this need to incentivize one's spouse to agree to the divorce. Alimony then does not necessarily exist due to any spousal negotiation, but rather due to the judicial process. Judges are responsible for assigning alimony payments and make these decisions based on several factors. Judges consider the duration of the marriage, the presence of children, the reason for the divorce, and the relative economic status of each spouse.[25]

The introduction of no-fault unilateral divorce laws potentially results in lower alimony payments for several reasons. First, women who terminate their marriage may appear less sympathetic to the judge and would then be awarded fewer alimony payments. Second, women under the prior divorce regime were often required to show cause (e.g., infidelity, domestic violence, etc.) to obtain a divorce. With the introduction of no-fault unilateral divorce, women are no longer required to provide a reason for wanting to end the marriage. Judges may be unaware of the husband's past transgressions, which would result in lower alimony payments.

We test whether the reform indeed reduces alimony payments to spouses by considering the event-study framework over the share of divorces receiving alimony. Panel B of Figure 8 displays the results across the proportion of spouses receiving alimony pre- and post-reform. The purple line shows spousal alimony awards over all divorces. The blue line exhibits the child-only awards of support amongst divorces with minor children. The yellow line indicates the share of divorces awarded spouses alimony in divorces with minor children.[26] The plotted coefficients confirm our hy-

[25] See Articles 288, 301-323 of the Código Civil Federal.

[26] Note that all divorces with minors are awarded child support, however, the INEGI makes a distinction between awards of support to spouse plus children, and only children.

pothesis and suggest that there is a decline in alimony payments following the introduction of unilateral divorce. Spousal alimony in divorcing families with children takes an especially apparent decline following the reform. Children are protected from this decline, and the income is redistributed to child-only awards of support.

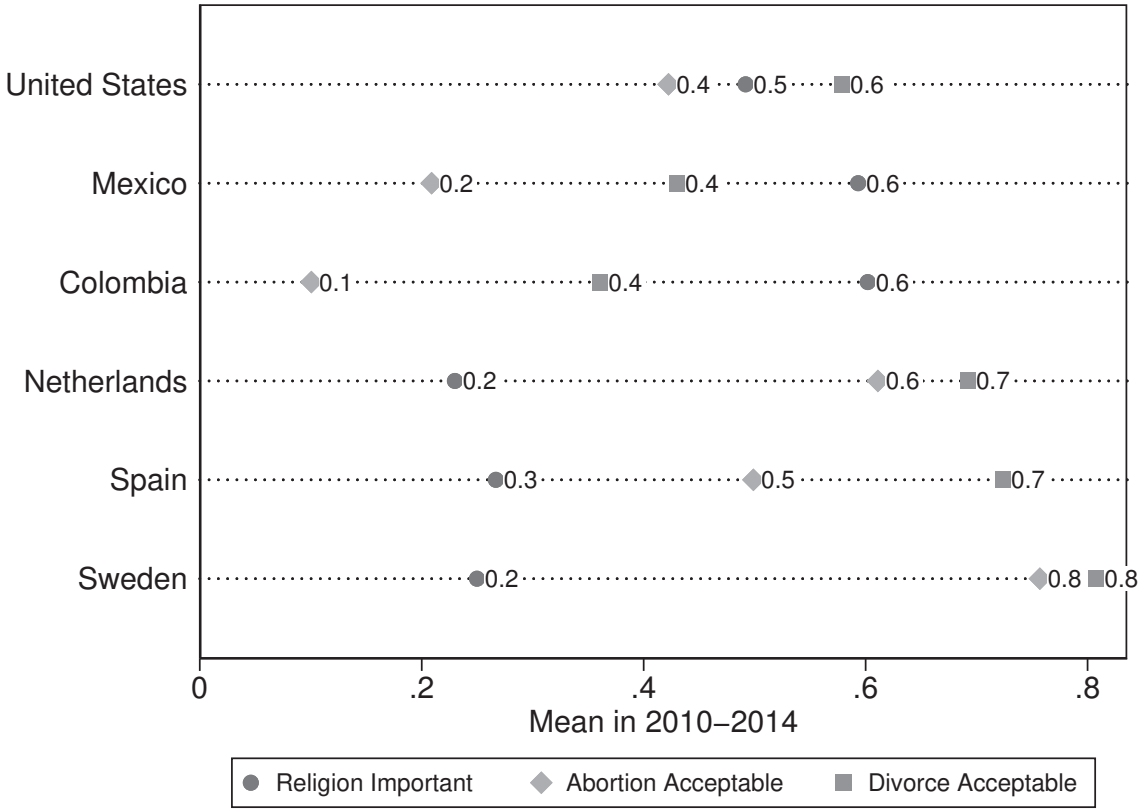
7 Conclusion

In this paper, we study the introduction of unilateral no-fault divorce in Mexico. Using an event-study framework, we find that state-level divorce rates increased dramatically in the three years (10 quarters) following the liberalization of divorce laws. Our findings suggest that divorce laws in Mexico have a similar impact to what has previously been observed in the United States (Wolfers, 2006) and Continental Europe (González and Viitanen, 2009; Kneip and Bauer, 2009). We build upon the existing literature by examining the divorce process in detail. We find that the introduction of unilateral divorce led to a noticeable increase in women filing for divorce and a simultaneous decline in spousal alimony payments. To the best of our knowledge, we are one of the first studies to analyze the relationship between unilateral divorce laws and these aspects of the divorce process.

There are several limitations to our study that motivate future work. First, we are unable to discern whether the substantial increase in divorce rates persist over time. Because most Mexican states adopted unilateral divorce within the last five years, the data is not sufficient to analyze long-run effects. Second, our study is only the first step in analyzing how the introduction of unilateral divorce laws affect marital interactions. We document several empirical facts pertaining to how divorce fillings and divorce settlements were affected by these laws, however, we do not answer *why* these changes occurred. Moreover, we do not study how couples who remained married were affected by the reform. While we include a simple model of divorce in the Appendix, a richer model that can be taken to the data may better answer these questions. Divorce laws change each spouse's outside option, which will impact both couples who stay married and those who divorce. We leave that for future research.

8 Figures

Figure 1: Cultural Differences between Countries

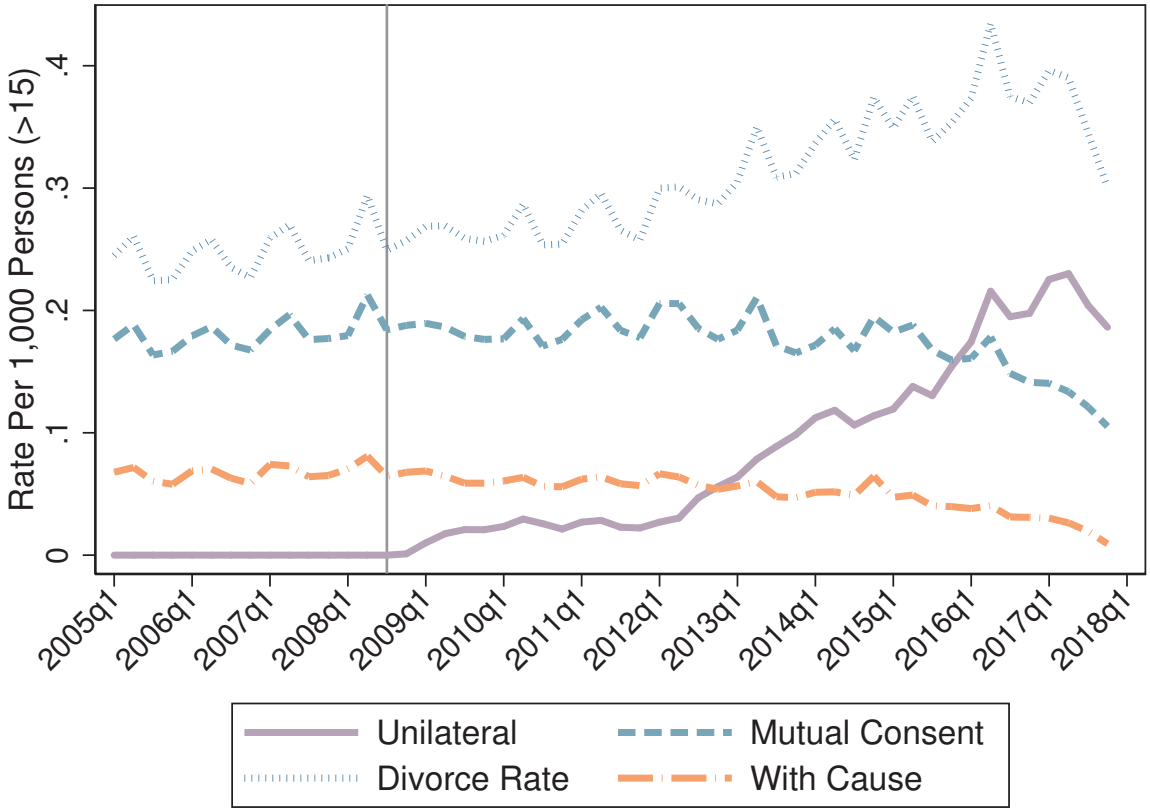


SOURCE: World Values Survey, Wave 6 (2010-2014).
NOTES: Figure reports the country-level importance placed by individuals on religion, the acceptance of abortion, and the acceptance of divorce. All three measures are calculated on a scale from zero to one.

Figure 2: Pre-Reform Divorce Rates by State

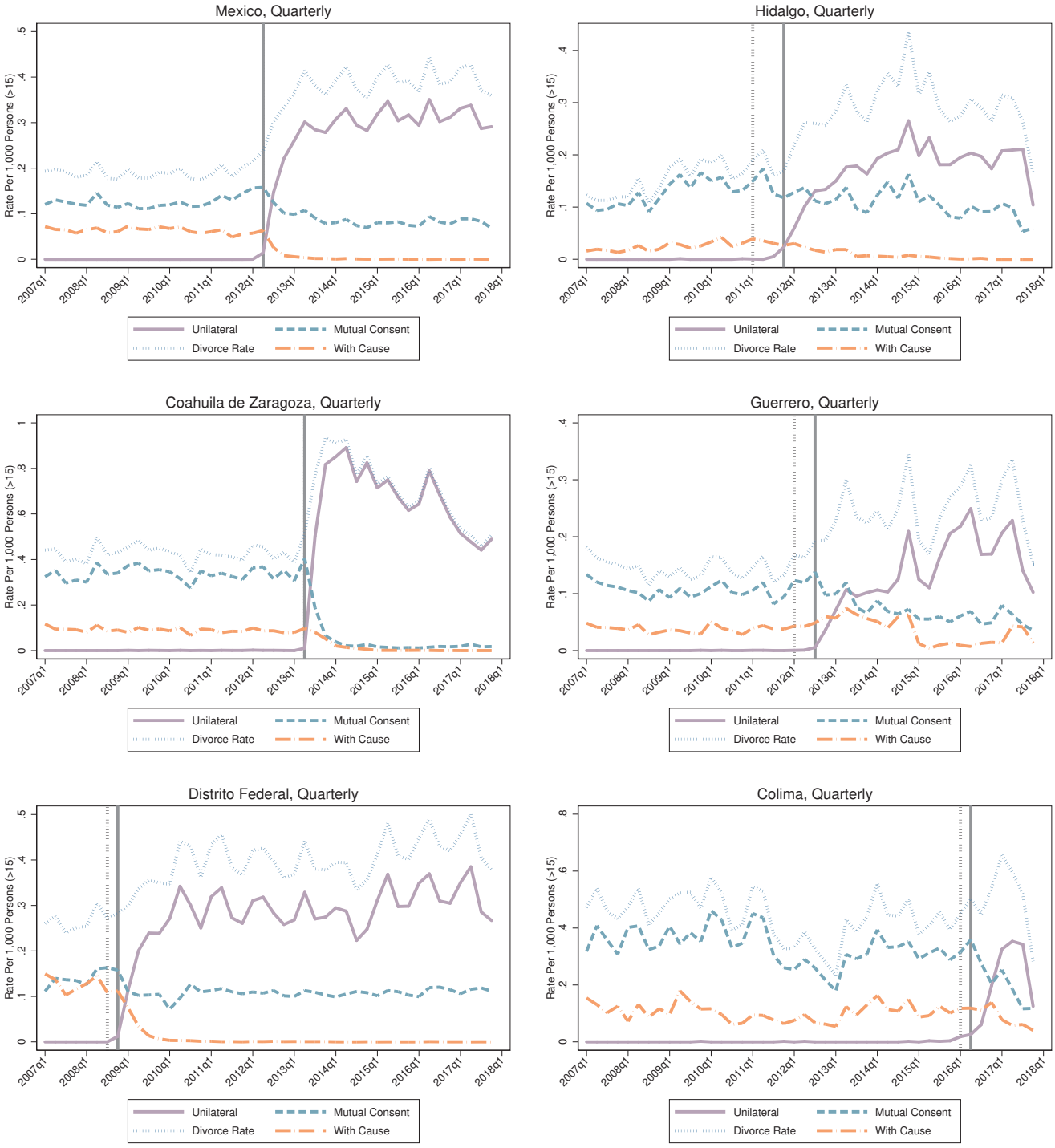
SOURCE: INEGI divorce statistics.
NOTES: The divorce rate is reported per 1,000 persons over age 15. Rates reported for 2008 Q1.

Figure 3: National Divorce Rate by Divorce Type



SOURCE: INEGI divorce statistics.
NOTES: The divorce rate is reported per 1,000 persons over age 15. The vertical line indicates the passage of unilateral divorce in Mexico City.

Figure 4: State-by-State Divorce Rates by Divorce Type



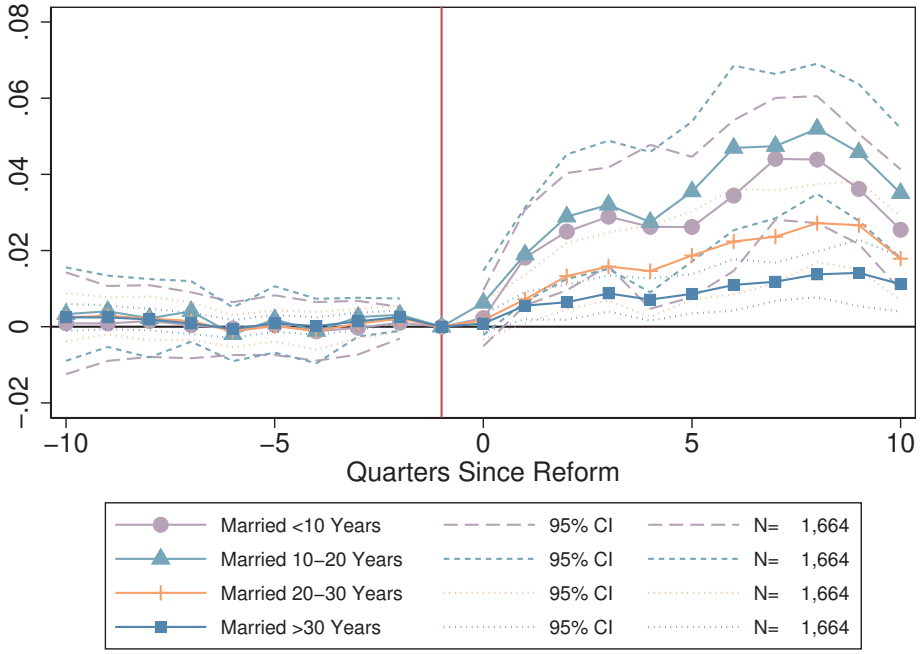
SOURCE: INEGI divorce statistics.
NOTES: The divorce rate is reported per 1,000 persons over age 15. The dotted vertical lines indicates the *de jure* law and the solid vertical line indicates the *de facto* reform.

Figure 5: Baseline Effect of Reform on Divorce Rates

SOURCE: INEGI divorce statistics.
NOTES: Plotted coefficients are event-study dummy variables, β_Q, 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 $Q = -1$. 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 at the state level, quarter, year, and quarter-year. The full specification includes linear and quadratic time trends. Baseline controls include annual state economic activity and the state-level unemployment rate. Robust standard errors are clustered at the state level.

Figure 6: Effect of Reform on Divorce Rates by Marriage Length

Panel A: Ten-year Intervals



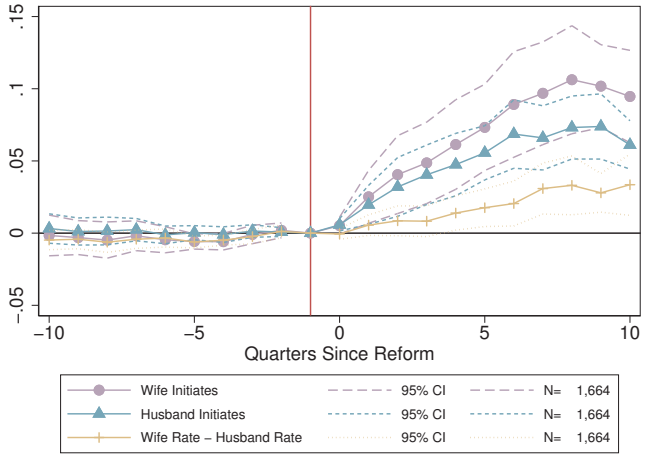
Panel B: Five-year Intervals

SOURCE: INEGI divorce statistics.

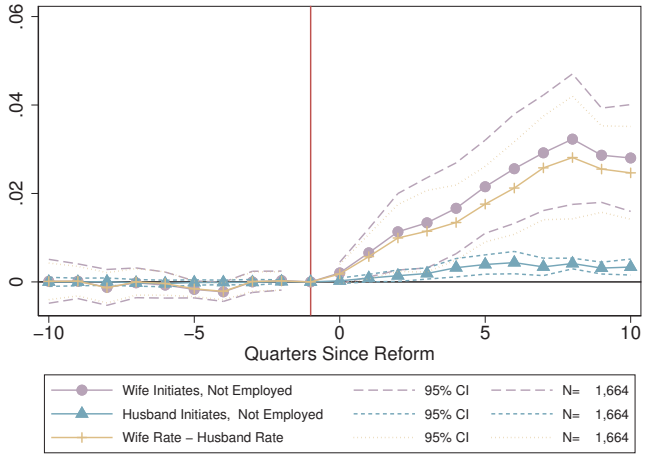
NOTES: Plotted coefficients are event-study dummy variables, β_Q, from a weighted least squares estimation of Equation 1. Each plotted point represents the time before and after the unilateral reform, excluding the period just before adoption $Q = -1$. Weights are based on the state population over age 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 at the state level, quarter, year, and quarter-year. The full specification includes linear and quadratic time trends. Baseline controls include annual state economic activity and the state-level unemployment rate. Robust standard errors are clustered at the state level.

Figure 7: Effect of Reform on Individual Divorce Filings

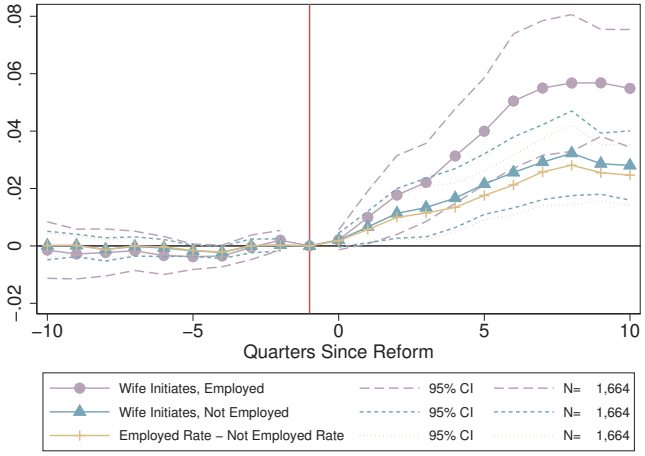
Panel A: Filings by Gender



Panel B: Initiating Person Not Employed



Panel C: Wife Initiating by Employment



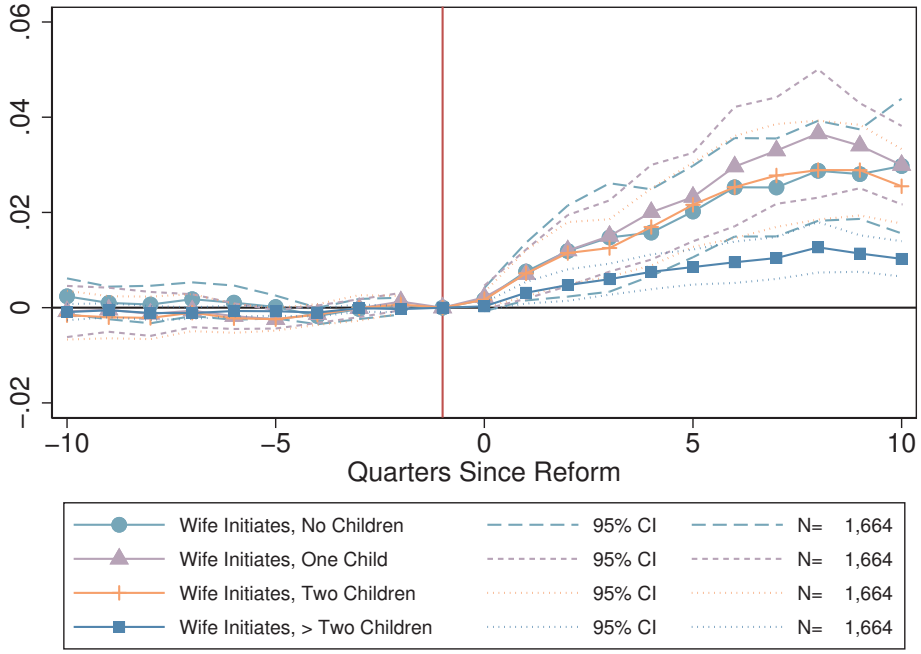
Panel D: By Employment of Couple

SOURCE: INEGI divorce statistics.

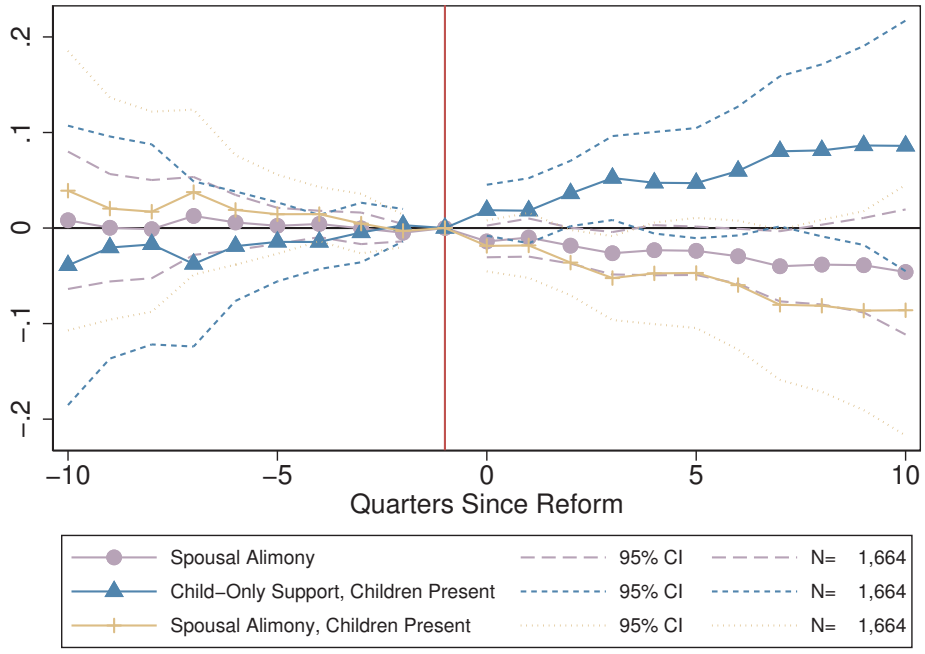
NOTES: Plotted coefficients are event-study dummy variables, β_Q, from a weighted least squares estimation of Equation 1. Each plotted point represents the time before and after the unilateral reform, excluding the period just before adoption $Q = -1$. Weights are based on the state population over age 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 at the state level, quarter, year, and quarter-year. The full specification includes linear and quadratic time trends. Baseline controls include annual state economic activity and the state-level unemployment rate. Robust standard errors are clustered at the state level.

Figure 8: Effect of Reform on Filings and Alimony

Panel A: Divorce Rate, Woman Initiating by Children



Panel B: Share of Divorces Receiving Spousal Alimony



SOURCE: INEGI divorce statistics.

NOTES: Plotted coefficients are event-study dummy variables, β_Q, 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 $Q = -1$. 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 at the state level, quarter, year, and quarter-year. The full specification includes linear and quadratic time trends. Baseline controls include annual state economic activity and the state-level unemployment rate. Robust standard errors are clustered at the state level.

9 Tables

Table 1: Unilateral Divorce Legislation Year and State, 2008-2017

Region	State	De Facto Year	De Jure Year	Legal Code (Family v. Civil)	Divorce Articles (#)
Central	Mexico City	2008	2008	Civil	266, 267, 272
	Guanajuato	2015		Civil	328, 323, 329
	Hidalgo	2011	2011	Family	102, 103
	Mexico	2012	2012	Civil	4.89, 4.91, 4.191, 4.102, 4.105
	Morelos	2016	2016	Family	174, 175
	Puebla	2016	2016	Civil	442 - 453
	Queretaro	2015	2016	Civil	246, 249, 252, 253
	Tlaxcala	2016	2016	Civil	123, 125
North	Aguascalientes	2015	2015	Civil	288, 289, 294, 295, 296, 298
	Baja California	2016		Civil	264, 269, 271
	Baja California Sur	2017	2017	Civil	305, 273, 277, 278, 279, 284, 288, 289
	Coahuila	2013	2013	Civil	362, 363, 369, 374
	Chihuahua	2016		Civil	255, 256
	Durango	2016		Civil	261-286
	Nuevo Leon	2014	2016	Civil	267, 272, 274
	San Luis Potosi	2016	2017	Family	86, 87
	Sinaloa	2013	2013	Family	181, 182, 184
	Sonora	2015	2015	Family	141-156
	Tamaulipas	2014	2015	Civil	248, 249, 253
	Zacatecas	2017	2017	Family	214, 215, 223, 224, 231
West	Colima	2016	2016	Civil	267, 268, 272, 273, 278
	Jalisco	2016	2018	Civil	404, 405
	Michoacan	2016	2015	Family	253- 258
	Nayarit	2015	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	2012	Ley de Divorcio	4, 11, 12, 13, 16, 17, 27, 28, 44
	Oaxaca	2017	2017	Civil	278, 279, 284, 285
	Quintana Roo	2014	2013	Civil	798, 799, 800, 801, 804, 805
	Tabasco	2015		Civil	257, 258, 267, 268, 269, 272
	Veracruz	2015	2015	Civil	141, 146, 147, 148, 150
	Yucatan	2013	2013	Family	191, 192

KEY: Blue indicates conflict between the *de facto* and *de jure* years. There are additional states including Guerrero, Hidalgo, Morelos, Oaxaca, Sonora, Veracruz, and Yucatan, where the quarters differ by more than a single quarter between *de facto* and *de jure* practices.
NOTES: When the sources conflict, for our baseline analysis, we default to the *de facto* quarter-year combination where the number of unilateral divorces sentenced exceeds ten (see INEGI). Based on our research, states with blank years had not passed unilateral divorce *as of 2017*.
SOURCES: Author's combination of the sources including: (i) family and civil codes of each state, (ii) popular press articles, (iii) Garcia-Ramos (2017), (iv) Mendez-Sachez (2014), and (v) INEGI divorce statistics.

Table 2: Divorce Summary Statistics, by Reform

Panel A: Divorce Microdata

	Not Unilateral	Unilateral	Difference
	Mean	Mean	b
Mutual Consent	0.764	0.000	0.76***
With Cause	0.233	0.000	0.23***
Judicial	0.834	0.997	-0.16***
Admin	0.166	0.003	0.16***
Male Initiated	0.101	0.358	-0.26***
Female Initiated	0.130	0.485	-0.35***
Both Initiated	0.766	0.118	0.65***
Alimony Kids	0.502	0.548	-0.05***
Alimony Spouse	0.057	0.042	0.02***
Alimony Kids and Spouse	0.049	0.032	0.02***
Has Minor Child	0.552	0.580	-0.03***
Marriage length	13.878	15.640	-1.76***
N	925,517	300,386	1,225,903

Panel B: State-level Aggregate

	Not Unilateral	Unilateral	Difference
	Mean	Mean	b
Mutual Consent	0.744	0.387	0.36***
With Cause	0.251	0.087	0.16***
Judicial	0.867	0.876	-0.01
Admin	0.133	0.124	0.01
Female Initiated	0.139	0.274	-0.13***
Male Initiated	0.110	0.225	-0.11***
Alimony Kids	0.521	0.475	0.05***
Alimony Spouse	0.068	0.041	0.03***
Alimony Kids and Spouse	0.058	0.033	0.02***
Both Initiated	0.746	0.455	0.29***
Has Child	0.579	0.508	0.07***
Marriage length	13.843	15.115	-1.27***
Divorces Per 1,000 Persons >15	0.297	0.420	-0.12***
Marriages Per 1,000 Persons >15	1.867	1.587	0.28***
Deaths Per 10,000 Persons	17.255	18.488	-1.23***
Births Per 1,000 Women	9.920	7.695	2.23***
Infant Deaths Per 1,000 Births	8.662	12.440	-3.78***
N	1,188	348	1,536

SOURCE: INEGI divorce statistics.

NOTES: Panel A presents summary statistics for the divorce micro data. This includes an observation for each divorce in Mexico over the sample years. Panel B displays quarterly state-level aggregates of the micro data.

Table 3: Robustness Checks on Event Study: Divorce Rates

Specification:	Rate Per Married	Adjacent Adoption	Pre-Reform x Year	Grouped Pre-Period	Ten Q-Y Post-Reform	De Jure Dates	No Mexico City	DV Law Passed
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Q=-10	0.004	0.011	0.038		-0.033*	-0.046	0.024	0.012
	(0.023)	(0.018)	(0.028)		(0.017)	(0.042)	(0.015)	(0.018)
Q=-9	0.009	0.012	0.037*		-0.016	-0.036	0.019	0.013
	(0.017)	(0.014)	(0.020)		(0.017)	(0.034)	(0.013)	(0.013)
Q=-8	0.005	0.009	0.031		-0.016	-0.029	0.017	0.009
	(0.018)	(0.014)	(0.020)		(0.015)	(0.029)	(0.013)	(0.014)
Q=-7	0.004	0.007	0.031*		-0.012	-0.031	0.014	0.008
	(0.016)	(0.012)	(0.017)		(0.018)	(0.034)	(0.011)	(0.011)
Q=-6	-0.012	-0.005	0.017		-0.027	-0.030	-0.001	-0.003
	(0.014)	(0.009)	(0.015)		(0.015)	(0.031)	(0.010)	(0.009)
Q=-5	-0.001	0.003	0.025**		-0.026	-0.026	0.008	0.004
	(0.015)	(0.011)	(0.012)		(0.018)	(0.028)	(0.010)	(0.010)
Q=-4	-0.011	-0.004	0.016		-0.019	-0.027	-0.000	-0.003
	(0.017)	(0.011)	(0.013)		(0.012)	(0.022)	(0.012)	(0.011)
Q=-3	0.005	0.005	0.018		-0.005	-0.019	0.010	0.006
	(0.012)	(0.008)	(0.011)		(0.013)	(0.014)	(0.008)	(0.008)
Q=-2	0.014	0.009	0.018*		0.003	0.009	0.013**	0.009
	(0.009)	(0.006)	(0.010)		(0.009)	(0.009)	(0.005)	(0.006)
Q=0	0.018	0.013	0.010	0.010	0.041**	0.007	0.014	0.012
	(0.018)	(0.011)	(0.011)	(0.010)	(0.014)	(0.010)	(0.012)	(0.011)
Q=1	0.086***	0.052***	0.044**	0.049***	0.078**	0.030	0.056***	0.051***
	(0.028)	(0.018)	(0.016)	(0.018)	(0.027)	(0.022)	(0.018)	(0.017)
Q=2	0.134***	0.075***	0.066***	0.072***	0.118***	0.047	0.076***	0.074***
	(0.038)	(0.023)	(0.022)	(0.023)	(0.034)	(0.029)	(0.024)	(0.023)
Q=3	0.159***	0.087***	0.069***	0.084***	0.139***	0.065*	0.085***	0.086***
	(0.034)	(0.022)	(0.018)	(0.022)	(0.033)	(0.032)	(0.022)	(0.021)
Q=4	0.196***	0.077**	0.056**	0.074**	0.152***	0.079**	0.074**	0.075**
	(0.038)	(0.029)	(0.027)	(0.030)	(0.037)	(0.031)	(0.031)	(0.029)
Q=5	0.222***	0.091***	0.056**	0.089***	0.166***	0.101***	0.091***	0.090***
	(0.037)	(0.027)	(0.026)	(0.027)	(0.037)	(0.024)	(0.028)	(0.027)
Q=6	0.262***	0.117***	0.076**	0.116***	0.188***	0.107***	0.111***	0.116***
	(0.064)	(0.031)	(0.028)	(0.032)	(0.048)	(0.020)	(0.033)	(0.031)
Q=7	0.273***	0.131***	0.088***	0.130***	0.196***	0.124***	0.123***	0.130***
	(0.062)	(0.027)	(0.021)	(0.027)	(0.045)	(0.023)	(0.028)	(0.026)
Q=8	0.275***	0.142***	0.086***	0.141***	0.204***	0.137***	0.141***	0.140***
	(0.054)	(0.025)	(0.021)	(0.026)	(0.040)	(0.025)	(0.027)	(0.024)
Q=9	0.234***	0.127***	0.057**	0.127***	0.195***	0.125***	0.117***	0.125***
	(0.046)	(0.026)	(0.024)	(0.026)	(0.039)	(0.020)	(0.027)	(0.025)
Q=10	0.194***	0.096***	0.020	0.097***	0.182***	0.112***	0.092***	0.093***
	(0.046)	(0.024)	(0.028)	(0.026)	(0.038)	(0.024)	(0.028)	(0.024)
Observations	1,536.00	1,664.00	1,664.00	1,664.00	728.00	1,664.00	1,612.00	1,664.00
R-squared	0.92	0.89	0.90	0.90	0.90	0.89	0.89	0.89
Mean Dep. Var.	0.48	0.30	0.30	0.30	0.34	0.30	0.29	0.30
Baseline FE & TT	X	X	X	X	X	X	X	X

SOURCES: INEGI divorce statistics. Mexican IPUMS data. Garcıa-Ramos (2017)

NOTES: Coefficients are event-study dummy variables, β_m, from a weighted least squares estimation of Equation 1. Weights are based on the state population over age 15. The period before the reform (-1) is the excluded period. Each period (Q) represents a quarter-year. Baseline controls include annual state economic activity and the state-level unemployment rate. The divorce rate is reported per 1,000 persons over age 15. Fixed effects are included at the state level, quarter, year, and quarter-year. The full specification includes linear and quadratic time trends. Robust standard errors are clustered at the state level. Significance levels reported at the 10, 5, and 1 percent levels. *Rate Per Married* is the divorce rate per married person over age 15. *Adjacent Adoption* adds a control for the share of neighboring states with unilateral divorce legislation. *Pre-Reform x Year* interacts the percentile (0-20,20-40,40-60,60-80,80-100) of the ever-divorced proportion (in 2000) with year fixed effects. *Grouped Pre-Period* groups all periods before passage of the reform. *10 Q-Y Post-Reform* includes only reform states with ten quarter-year post-reform observations. *De Jure Dates* uses the dates from the state's legislation. *No Mexico City* excludes the capital city. *DV Law Passed* adds an indicator for adoption of *Ley General de Acceso a Una Vida Libre de Violencia*.

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A Additional Tables

Table A1: Baseline Event Study: Divorce Rates

Specification:	Baseline Adjustments				Without Weights	Without Controls	Lagged Controls	Added Controls
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Q=-10	0.036	0.007	0.027***	0.011	0.037	0.009	0.009	0.001
	(0.028)	(0.010)	(0.009)	(0.018)	(0.023)	(0.018)	(0.018)	(0.020)
Q=-9	0.010	0.010	0.019**	0.012	0.035*	0.010	0.011	0.007
	(0.015)	(0.011)	(0.007)	(0.013)	(0.019)	(0.013)	(0.013)	(0.014)
Q=-8	0.011	0.005	0.014	0.009	0.030	0.008	0.009	0.003
	(0.014)	(0.012)	(0.009)	(0.014)	(0.019)	(0.014)	(0.014)	(0.015)
Q=-7	0.007	0.005	0.012	0.008	0.027	0.006	0.007	0.001
	(0.013)	(0.009)	(0.008)	(0.011)	(0.017)	(0.011)	(0.011)	(0.013)
Q=-6	-0.003	-0.007	-0.000	-0.004	0.008	-0.004	-0.004	-0.009
	(0.010)	(0.009)	(0.008)	(0.009)	(0.015)	(0.010)	(0.010)	(0.011)
Q=-5	0.001	0.003	0.007	0.004	0.019	0.003	0.003	-0.000
	(0.008)	(0.009)	(0.008)	(0.010)	(0.013)	(0.010)	(0.010)	(0.011)
Q=-4	-0.006	-0.004	-0.001	-0.003	0.014	-0.004	-0.004	-0.007
	(0.012)	(0.010)	(0.009)	(0.011)	(0.013)	(0.011)	(0.012)	(0.011)
Q=-3	0.010	0.003	0.007	0.005	0.017*	0.005	0.005	0.003
	(0.008)	(0.007)	(0.007)	(0.008)	(0.010)	(0.008)	(0.008)	(0.008)
Q=-2	0.011*	0.009*	0.011**	0.009*	0.014*	0.009	0.008	0.007
	(0.006)	(0.005)	(0.005)	(0.005)	(0.007)	(0.006)	(0.006)	(0.006)
Q=0	0.013	0.013	0.012	0.012	0.020**	0.013	0.012	0.010
	(0.009)	(0.011)	(0.011)	(0.011)	(0.010)	(0.010)	(0.010)	(0.011)
Q=1	0.055***	0.049***	0.048***	0.051***	0.064***	0.052***	0.051***	0.052***
	(0.017)	(0.018)	(0.017)	(0.017)	(0.022)	(0.017)	(0.018)	(0.017)
Q=2	0.070***	0.075***	0.070***	0.074***	0.086**	0.074***	0.073***	0.080***
	(0.023)	(0.021)	(0.021)	(0.023)	(0.033)	(0.023)	(0.023)	(0.024)
Q=3	0.079***	0.089***	0.081***	0.085***	0.091***	0.085***	0.086***	0.094***
	(0.020)	(0.020)	(0.019)	(0.021)	(0.029)	(0.021)	(0.022)	(0.022)
Q=4	0.071**	0.078***	0.071**	0.075**	0.078**	0.075**	0.076**	0.085**
	(0.029)	(0.027)	(0.027)	(0.029)	(0.038)	(0.030)	(0.029)	(0.033)
Q=5	0.083***	0.095***	0.085***	0.090***	0.091***	0.089***	0.089***	0.098**
	(0.028)	(0.027)	(0.026)	(0.027)	(0.033)	(0.028)	(0.027)	(0.036)
Q=6	0.114***	0.126***	0.111***	0.116***	0.123***	0.116***	0.117***	0.130***
	(0.033)	(0.031)	(0.031)	(0.031)	(0.038)	(0.032)	(0.030)	(0.043)
Q=7	0.143***	0.152***	0.128***	0.130***	0.149***	0.129***	0.129***	0.152***
	(0.034)	(0.029)	(0.027)	(0.026)	(0.040)	(0.027)	(0.026)	(0.036)
Q=8	0.161***	0.179***	0.147***	0.139***	0.149***	0.137***	0.138***	0.166***
	(0.044)	(0.035)	(0.029)	(0.024)	(0.034)	(0.025)	(0.024)	(0.034)
Q=9	0.178***	0.183***	0.141***	0.125***	0.120***	0.124***	0.125***	0.133***
	(0.044)	(0.033)	(0.028)	(0.025)	(0.036)	(0.025)	(0.024)	(0.025)
Q=10	0.117***	0.160***	0.114***	0.093***	0.105***	0.092***	0.091***	0.100***
	(0.035)	(0.029)	(0.024)	(0.024)	(0.033)	(0.024)	(0.024)	(0.032)
Observations	1,664.00	1,664.00	1,664.00	1,664.00	1,664.00	1,664.00	1,632.00	1,596.00
R-squared	0.25	0.82	0.87	0.89	0.87	0.89	0.90	0.89
Mean Dep. Var.	0.30	0.30	0.30	0.30	0.32	0.30	0.30	0.30
Time FE	X	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
State x Time-sq				X	X	X	X	X

SOURCE: INEGI divorce statistics.

NOTES: Coefficients are event-study dummy variables, β_m, from a weighted least squares estimation of Equation 1. Weights are based on the state population over age 15. The period before the reform (-1) is the excluded period. Each period (Q) represents a quarter-year. Baseline controls include annual state economic activity and the state-level unemployment rate. The divorce rate is reported per 1,000 persons over age 15. Fixed effects are included at the state level, quarter, year, and quarter-year. The full specification includes linear and quadratic time trends. Robust standard errors are clustered at the state level. Significance levels reported at the 10, 5, and 1 percent levels. *Without Weights* shows the results without population weights. *Without Controls* excludes all controls. *Lagged Controls* takes one year lags of the main controls. *Added Controls* adds controls for the death rate, the marriage rate, the birth rate, and the fetal death rate in each state.

Table A2: Description of INEGI Divorce Data

	Variable(s)		Detailed Description
1	Divorce Procedure		Judicial v. Administrative
2	Registration Location		State, Municipality, Location, and Size of Place
3	Marriage Characteristics		Location and Date of Marriage
4	Dates of Divorce		Filed, Sentenced (and Executed (>2015))
5	Divorce Person		Who Initiated the Divorce and Divorce Favor
6	Cause of Divorce, Including:	1	Mutual consent
		2	Adultery or sexual infidelity
		3	Illegitimate child
		4	Prostitution
		5	Incitement to violence
		6	Corruption and / or mistreatment of children
		7	Chronic or incurable disease, impotence or incurable infertility
		8	Insane mental illness or the state of interdiction declared
		9	Separation from the conjugal home for more than 1 year, with or without just cause
		10	Leaving home for more than 3 or 6 months without just cause
		11	Declaration of absence or presumption of death
		12	Threats or insults or intrafamily violence
		13	Refusal to contribute voluntarily or by judgment of the family judge to the maintenance of the home
		14	Slanderous accusation
		15	Having committed an intentional or infamous crime
		16	Habits of gambling, drunkenness or drugs
		17	Committing a criminal act against a spouse
		18	Character incompatibility
		19	Separation for 2 years or more regardless of the reason
		20	Bigamy
		21	The wife does not move with her husband when changing residence, in or out of the country
		22	If a spouse filed for divorce because of unjustified cause, the defendant can divorce 3 months after the last judgment
		23	Assisted fertilization without spousal consent
		24	Preventing one spouse from performing another lawful activity
		25	The wife acknowledges a child born before the marriage without the husband's consent
		26	Use of permanent sterilization method without the consent of the spouse
		27	Bisexuality manifested, or intention or change of sex by medical or surgical treatment
		28	Unilateral
7	Alimony Assignment		Spouse, Spouse and Child, Only Children
8	Spouse Characteristics	1	Nationality
		2	Age
		3	Year of Birth
		4	Previous Marital Status
		5	Residence
		6	Employment
		7	Education
		8	Sex

SOURCE: INEGI divorce statistics.

Table A3: Event Study: Divorces from Nearby States and Divorce Length

Specification:	Share of Divorces from Different States			Divorce Length
	One Spouse (1)	Both Spouses (2)	Marriage Filed (3)	(In Months) (4)
Q=-10	0.014*	0.003	-0.005	2.089**
	(0.007)	(0.002)	(0.008)	(0.826)
Q=-9	0.012**	0.002	0.002	1.841**
	(0.005)	(0.001)	(0.006)	(0.797)
Q=-8	0.006	0.001	-0.003	1.253**
	(0.005)	(0.001)	(0.006)	(0.584)
Q=-7	0.006	0.001	-0.002	1.135**
	(0.004)	(0.001)	(0.004)	(0.493)
Q=-6	0.009**	0.000	-0.007	0.880**
	(0.004)	(0.001)	(0.004)	(0.394)
Q=-5	-0.002	0.001	-0.005	0.628
	(0.005)	(0.000)	(0.004)	(0.384)
Q=-4	-0.004	0.000	-0.004	0.268
	(0.006)	(0.001)	(0.004)	(0.250)
Q=-3	-0.006	-0.001	-0.003	0.759*
	(0.005)	(0.000)	(0.004)	(0.376)
Q=-2	-0.007	-0.000	-0.007	0.238
	(0.005)	(0.001)	(0.004)	(0.195)
Q=0	-0.003	-0.001	-0.004	-0.135
	(0.003)	(0.001)	(0.005)	(0.383)
Q=1	-0.006*	-0.001	0.024	-0.368
	(0.003)	(0.001)	(0.020)	(0.242)
Q=2	-0.006**	-0.001	0.023	-0.920***
	(0.003)	(0.001)	(0.023)	(0.323)
Q=3	-0.007**	-0.001	0.025	-1.282***
	(0.003)	(0.001)	(0.023)	(0.311)
Q=4	-0.003	-0.001	0.029	-0.815
	(0.004)	(0.001)	(0.023)	(0.592)
Q=5	-0.007**	-0.002*	0.024	-1.067**
	(0.003)	(0.001)	(0.019)	(0.509)
Q=6	-0.012***	-0.002**	0.019	-1.191***
	(0.004)	(0.001)	(0.019)	(0.320)
Q=7	-0.008**	-0.001	0.031	-1.880***
	(0.004)	(0.001)	(0.025)	(0.374)
Q=8	-0.011***	-0.001	0.035	-1.318**
	(0.004)	(0.001)	(0.025)	(0.502)
Q=9	-0.016*	-0.001	0.033	-1.779***
	(0.009)	(0.001)	(0.023)	(0.421)
Q=10	-0.018**	-0.002*	0.008	-1.303**
	(0.008)	(0.001)	(0.009)	(0.520)
Observations	1,664.00	1,664.00	1,664.00	1,664.00
R-squared	0.86	0.57	0.85	0.77
Mean Dep. Var.	0.06	0.01	0.10	6.18
Baseline FE & TT	X	X	X	X

SOURCE: INEGI divorce statistics.
NOTES: Coefficients are event-study dummy variables, β_m, from a weighted least squares estimation of Equation 1. Weights are based on the state population over age 15. The period before the reform (-1) is the excluded period. Each period (Q) represents a quarter-year. Baseline controls include annual state economic activity and the state-level unemployment rate. The divorce rate is reported per 1,000 persons over age 15. Fixed effects are included at the state level, quarter, year, and quarter-year. The full specification includes linear and quadratic time trends. Robust standard errors are clustered at the state level. Significance levels reported at the 10, 5, and 1 percent levels. Columns (1)-(3) show the share of divorce filings from residents (or marriages) of other states. Column (4) is the average length of the divorce process, measured in months.

B Labor Supply, Marriage Rates, and Birth Rates

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 1970s, the global cultural context might have shifted in the past 40 years, there might be a muted effect.In Figure B.I Panel A we consider how the unilateral reform affects both male and female employment. After the reform, there does not appear to be a shift in female or male employment.

Divorce legislation may also affect whether individuals are willing to enter into marriages and change the overall marriage rate in adopting states. Having easier access to divorce could raise the likelihood that couples marry if individuals view divorce as an easy exit option. Changing cultural norms around divorce, however, may have the reverse effect if the societal status of marriage changes and individuals have a lower desire to marry. To test these stories, we plot the marriage rate in Figure B.II. The coefficients reveal that neither story is definitive. Marriage rates are relatively constant after the passage of unilateral divorce, with the coefficients hovering around zero for the ten periods after the reform.

As divorces may also affect the decision to have children once the couple is married we next test the birth rate in addition to the marriage rate. In Figure B.II the birth rate is plotted in yellow. Following the legislation, the birth rate declines slightly, but the confidence intervals are quite wide surrounding the point estimates. In the immediate wake of the reform, neither the birth rate nor the marriage rate substantially changes. As with the main results, it is possible that with a longer series of data the effect for either outcomes may become more apparent as the societal norms begin to shift.

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

Panel A: Employment

Panel B: Out of Labor Force

SOURCE: INEGI divorce statistics.

NOTES: Plotted coefficients are event-study dummy variables, β_Q, 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 $Q = -1$. 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. Fixed effects are included at the state level, quarter, year, and quarter-year. The full specification includes linear and quadratic time trends. Baseline controls include annual state economic activity and the state-level unemployment rate. Robust standard errors are clustered at the state level.

Figure B.II: Effect of Reform on Marriage and Birth Rates

SOURCE: INEGI divorce statistics.
NOTES: Plotted coefficients are event-study dummy variables, β_Q, 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 $Q = -1$. 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. Fixed effects are included at the state level, quarter, year, and quarter-year. The full specification includes linear and quadratic time trends. Baseline controls include annual state economic activity and the state-level unemployment rate. Robust standard errors are clustered at the state level.

C Model

We present a collective household model with endogenous divorce. The goal of the model is to illustrate how moving from a mutual consent to a unilateral divorce regime affects divorce rates. We summarize a simple version of the Chiappori et al. (2015) model, with a particular focus on the case where unilateral divorce increases, as this matches both what we observe in the data, as well as certain characteristics of the Mexican context.

The model satisfies many of the features of the Becker-Coase theorem, but differs in how public goods are shared within the marriage and upon divorce. For the Becker-Coase theorem to hold, utility must be transferable between spouses within the marriage and post-divorce, and the exchange rate of utilities of the two partners should not depend on the marital status. In our context, we do not assume utility is transferable upon divorce.[27] The main implication of the model is that divorce rates can increase under a unilateral divorce regime. Moreover, the magnitude of this increase is determined by how marital income and wealth are divided upon divorce, as well as each spouse's unhappiness within the marriage.

C.1 Setup

The household consists of a husband and a wife denoted by h and w, respectively. The household consumes two quantities over which each spouse derives utility: a private good x, and a public good X that is jointly consumed in marriage, but not in divorce. Denote the utility of a single person with

$$v_m(x, X) = x_m + x_m X \tag{2}$$

and if the person is part of a couple,

$$u(x, X) = X + x_m X + \theta_m, \quad m = w, h \tag{3}$$

where θ_m is a match-specific shock.[28] The parameter θ_m can be thought of as the utility each spouse derives from marriage that is unrelated to material consumption. We normalize the price of the private good to 1 and let P denote the price of the public good. Note that the marginal utility from the private good is increasing in X and the same for both spouses. This is necessary for utility to be transferable within the marriage. For simplicity, and to highlight the relevant mechanisms, each spouse has identical preferences that are independent of the marital status.

In the first period, couples are married and bargain over consumption levels of the private and public good. Consistent with the standard formulation of collective household models, the final allocation is assumed to be Pareto efficient, though no bargaining process is specified. At the end of the first period, each spouse receives the match-specific shock θ_h and θ_w. Given these shocks, the couple then decides in the second and final period to remain married or to divorce. The couple is allowed to renegotiate the terms of the marriage given the new situation.

[27] The further we deviate from the conditions of the Becker-Coase Theorem, the more likely divorce rates are to increase as a result of unilateral reforms. We focus on one likely violation.

[28] More general functional forms for utility may not result in utility being transferable within the marriage, violating the Becker-Coase theorem.

Under certain conditions (discussed below), it will be infeasible for the couple to reallocate the consumption goods in such a way that it is optimal for one or both of the spouses to want to remain married. Then, a divorce will occur depending on the divorce regime (mutual consent or unilateral).

Given the simplicity of the utility functions, the efficient level of X in marriage is given by

$$X = \min\left(\frac{y}{P}, \frac{y+2}{2P}\right) \tag{4}$$

where $y > 2$ is household income. Then $X = \frac{y+2}{2P}$ and $x_m = \frac{y-2}{2}$ for $m = h, w$. For any consumption bundle that is efficient, $x_m > 0$ for $m = h, w$, and $x_h + x_w = \frac{y-2}{2}$.

With Pareto efficiency, each spouse's utility within marriage is given by

$$U_m^M = (1 + x_m)\frac{2+y}{2P} + \theta_m, \quad m = w, h \tag{5}$$

and the Pareto frontier is then,

$$U_h^M + U_w^M = \frac{1}{4}\frac{(2+y)^2}{P} + \theta_h + \theta_w \tag{6}$$

which satisfies transferable utility as the slope of the Pareto frontier is -1.[29] Figure B.I illustrates this curve. Note that we have assumed that the sum of marriage-specific shocks are negative. If they were not, the utility frontier for marriage would lie entirely outside the utility frontier for divorce, and couples would always remain married.[30] While this may be true for some marriages, we focus on a setting where there is a potential for divorce. Given each spouse's relative bargaining power (determined by e.g., marriage market conditions, or individual wages), the husband and wife receive utility $\bar{U}_h^M$ and $\bar{U}_w^M$ from marriage respectively. This outcome is given by the point M in Figure B.I.

We now consider each spouse's utility should they divorce. We focus on the case where goods that are public in marriage become private in divorce, such as housing or heating expenditures.[31] The key parameter in determining post-marital utility is β, which describes how household income and assets are allocated post marriage. Whether β favors one particular spouse has large implications for the expected magnitude of changes in divorce rates, as we illustrate below. We assume that the husband receives βy of the income, with β between 0 and 1. The wife receives $(1 - \beta)y$.

The ex-husband's problem is given by

$$\max_{x_h, X_h} X_h + (\beta y - PX_h)X_h \tag{7}$$

which results in the following bundle of goods: $(X_h, x_h) = (\frac{1+\beta y}{2P}, \frac{\beta y - 1}{2})$ and a utility in divorce for the husband of $U_h^D = \frac{(1+\beta y)^2}{4P}$.

[29] There are special cases where this does not hold (e.g., if $x_m = 0$) which we ignore for simplicity.

[30] This feature of the model is due to the existence of joint consumption of public goods within the marriage.

[31] An alternative case would be if public goods remained public in divorce (e.g., if child wellbeing were a public good). See Chiappori et al. (2015) for more details.

The ex-wife's problem in divorce is similarly given by

$$\max_{x_w, X_w} X_w + ((1-\beta)y - PX_w)X_w \tag{8}$$

which results in consumption levels of $(X_w, x_w) = (\frac{(1-\beta y)+1}{2P}, \frac{(1-\beta y)-1}{2})$, and a utility in divorce of $U_w^D = \frac{(1+(1-\beta)y)^2}{4P}$.

The Pareto frontier once the couple divorces is given by

$$U_w^D = \frac{(2+y-2\sqrt{PU_h^D})^2}{4P} \tag{9}$$

Importantly, we are no longer in a setting where utility is transferable as the slope of the Pareto frontier is no longer -1. Instead, it is given by

$$\frac{dU_w^D}{dU_h^D} = -\frac{1+(1-\beta)y}{1+\beta y} \tag{10}$$

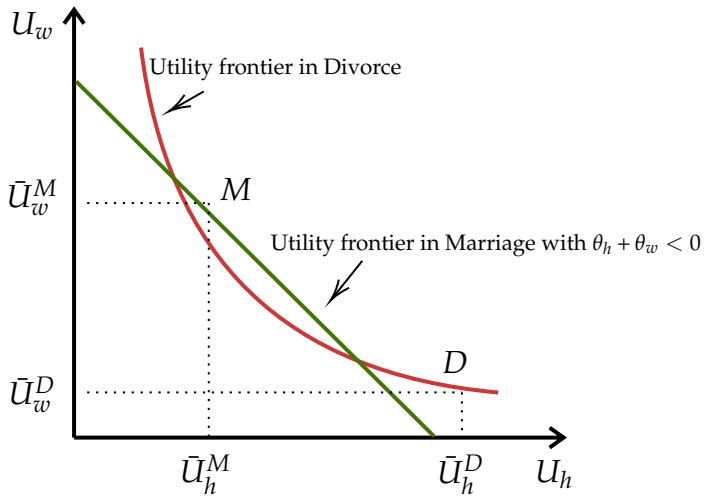
which is convex and is illustrated in Figure B.I. Therefore, it is possible that the Pareto frontiers for divorce and marriage intersect provided the marriage-specific shocks are particularly negative. Given each spouse's relative bargaining power, the husband and wife receive utility $\bar{U}_h^D$ and $\bar{U}_w^D$ from divorce, respectively. This outcome is given by the point D in Figure B.I.

C.2 Model Implications

We now summarize several of the key implications of the above model and discuss how they apply to the Mexican context. Several points are important. First, the Becker-Coase theorem does not entirely hold since public goods become private when couples divorce resulting in utility no longer being transferable. Second, the match-specific shocks θ_m are essential in determining whether the couple divorces. Given that couples gain from the joint consumption of public goods, couples will only divorce if they receive a particularly poor realization of the parameters θ_m. Specifically, divorce will only be a possibility if $\theta_h + \theta_w < 0$ as the Pareto frontiers of marriage and divorce will now intersect. Finally, how evenly assets are divided when couples divorce determines whether or not unilateral divorce increases divorce rates, and the magnitude of this change. We discuss these points with an example below that is illustrated in Figure B.I.

Suppose that the divorce legislation is relatively favorable to men, resulting in β being close to one. Furthermore, suppose that the match-specific shocks are significantly more favorable to women relative to men, with $\theta_w > 0 > \theta_h$. Intuitively, from this scenario we can see that women will place a significantly higher value on remaining married as the marital assets will be primarily allocated to the husband should the couple divorce, and women receive more utility from marriage, as $\theta_w > 0 > \theta_h$. Then if mutual consent is required for divorce, the wife will veto any divorce allocation that results in her being worse off then she would be when married. Is there a way for the husband to compensate her post-divorce to incentivize him to agree to the divorce? Given the situation illustrated in Figure B.I, it is not possible. There is no point on the utility frontier in divorce that gives the wife a utility greater than $\bar{U}_w^m$ that does not make the husband worse off than he would be if he remained married. As a result, the

Figure B.I: Pareto Frontier Under Marriage and Divorce



husband is not able to sufficiently compensate his wife to incentivize her to agree to a divorce.

Next, suppose that either spouse could file for divorce unilaterally. In this case, the wife can no longer veto the husband's divorce decision. She can potentially compensate her husband to ensure he does not file for divorce. However, in the situation presented in Figure B.I, this is not possible; The husband's utility in divorce, $\bar{U}_h^D$, is greater than any Pareto efficient utility level he could achieve in marriage. Moreover, the closer β is to 1, the harder it is for the wife to compensate her husband to prevent him from divorcing.

The above example is mostly consistent with what we observe in the data. We do expect husbands to be more financially secure upon divorce, and therefore we expect β to be closer to one than one-half. We also observe men filing for divorce more frequently after the reforms. The above example is not representative of all married couples in Mexico, as we see women filing for divorce more frequently as well. Given the model, there are two potential explanations for this. First, women could receive a particularly negative marriage shock θ_w. If there husband were abusive, for example, or if the wife were particularly unhappy in the marriage, she could file for divorce and it would be infeasible for the husband to compensate her enough to remain married. Alternatively, β for certain marriages may be more favorable to women (e.g., wife women have full custody of the children), and again, it would be difficult for the husband to adequately compensate the wife to remain married.