

Changes in Time Allocation due to Unilateral Divorce, Evidence from Mexico

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October 5, 2025

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Abstract

Unilateral divorce could impact how households allocate their time due to changes in bargaining power. This paper uses data from Mexico to analyze the impact of unilateral divorce on married couples. Using the exogenous variation by states in the unilateral divorce implementation, and data from the time allocation survey ENUT and the labor panel ENOE, we find evidence that married women decrease the time dedicated to caring for their kids. This effect is not driven by increasing the demand for domestic labor or having fewer children in the household. We complement the empirical analysis with a theoretical model that, under specific conditions, replicates the observed reduction in women's caregiving time in response to changes in the divorce regime.

Keywords: Time use, Divorce laws, Intrahousehold bargaining, Difference-in-difference

JEL Codes: D13, J1

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1 Introduction

The early twenty-first century has witnessed profound transformations in family structure and gender roles across Latin America. Fertility rates have declined markedly, and cohabitation and union dissolution have become more common, reshaping household dynamics and individual behavior (Esteve et al., 2025). These changes have occurred alongside persistent inequalities in how men and women allocate their time. Using time-use data from Lima, Avolio and Moreno (2025) document that women continue to shoulder the majority of unpaid household work across age and socioeconomic groups, even when they are equally or more engaged in paid labor. This unequal distribution of time contributes to mounting pressures on women’s work–life balance and reflects enduring gender norms in the region.

While these demographic and social shifts have received growing attention, less is known about how legal reforms—particularly those affecting marital dissolution—shape patterns of time use within households. Over the past two decades, most Mexican states have adopted unilateral divorce laws, which allow either spouse to dissolve a marriage, replacing earlier mutual consent. Such reforms can alter the intra-household balance of power, potentially shifting how partners allocate their time to paid and unpaid activities. Indeed, divorce laws can function as a mechanism for woman’s empowerment (Guarnieri and Rainer, 2018) by enhancing their ability to exit marriages that no longer reflect their preferences or interest. Existing evidence from developed countries supports this view: for instance, Genadek (2018) shows that the introduction of unilateral divorce in the United States led to a decline in women’s time devoted to housework and increased men’s relative contribution to domestic tasks. However, no equivalent evidence exists for Latin America, a region that has experienced both dramatic legal shifts and persistent gender inequalities (Berniell et al., 2024; Camou et al., 2017; Rodríguez, 2017). This paper fills that gap by examining whether cumulative exposure to unilateral divorce affects the time allocation of married men and women across key domains—market work, household production, childcare, and leisure—in the Mexican context.

A growing body of research suggests that access to unilateral divorce laws can enhance women’s bargaining power within marriage by lowering the cost of exit and making threats to leave more credible (Gruber, 2004; Stevenson and Wolfers, 2006; Brassiolo, 2016; Corradini and Buccione, 2023). Other evidence presented by Fernández and Wong (2017) states that unilateral divorce is costly for women as they earn lower wages and can spend more time raising children. However, the effects of such reforms are not universally positive and may vary by context. In the case of Mexico, for example, García-Ramos (2021) finds that while unilateral divorce laws had no immediate effect on intimate partner violence (IPV), they led

to an increase in IPV in the long run among women who remained married.

A rich theoretical literature has explored how household decisions reflect both cooperation and conflict between spouses, and how institutional and social structures shape these dynamics. Early collective models of the family (Chiappori and Molina, 2020) formalize intra-household decisions as Pareto-efficient outcomes in which resources are allocated according to each spouse’s relative bargaining power. Empirical evidence for Spain confirms that these Pareto weights can be recovered from household behavior and are consistent with observed patterns of altruism and egoism within couples (Molina et al., 2023). Yet, other frameworks emphasize that efficiency does not necessarily imply equality. Within a sequential (Stackelberg) setting, Beblo (2001) shows that even with identical wages, the spouse who moves first—typically the husband—enjoys greater leisure, thereby reproducing gendered asymmetries in time allocation. Similarly, Mizushima and Futagami (2015) model education and leisure choices as part of a two-stage family game and find that when the man acts as a leader, he both invests more in education and enjoys more leisure than the follower, consistent with persistent gender gaps in domestic work. Together, these contributions suggest that family decision-making depends not only on economic fundamentals, but also on the timing and structure of choices within the household.

Building on this literature, we develop a sequential model in which marriage decisions and time allocations are shaped by the prevailing divorce regime. Under mutual consent, both spouses must agree to remain married, whereas under unilateral divorce, either spouse can dissolve the marriage. This change modifies the threat points and thus the internal distribution of power. We formalize this process as a Stackelberg game in which one spouse (the leader) anticipates the follower’s best response in home production and can offer a lump-sum transfer to sustain the match. The model shows that when transfers are feasible, the equilibrium allocation coincides with the efficient solution that maximizes joint surplus, but in their absence, asymmetries in timing and bargaining weights can reproduce or amplify gender gaps in household time use. This theoretical framework provides the foundation for interpreting the empirical evidence presented in the following sections.

In recent decades, time-use surveys have emerged as a key instrument for documenting gendered patterns of labor allocation in both paid and unpaid domains, particularly in developing countries. These instruments are especially useful for capturing economic activities often excluded from conventional labor force surveys—such as subsistence production and unpaid care work—thus providing a more accurate picture of women’s contributions to household and national economies (Hirway and Jose, 2011). In Latin America and the Caribbean, the adoption of time-use surveys has grown significantly, bolstered by international and regional commitments such as the Beijing Platform for Action, the Consenso de

Quito, and the Consenso de Brasilia (Aguirre and Ferrari, 2014). Despite constraints like limited statistical capacity and high illiteracy rates in some areas, many countries have successfully developed the technical and institutional infrastructure needed to implement and sustain these surveys (Esquivel et al., 2008). Harmonized time-use data now exist for several countries, including Mexico, Chile, Colombia, and Peru, enabling cross-national analyses of intra-household dynamics. For example, recent evidence shows that increases in women’s earnings are associated with reductions in their time spent on housework, while men’s contributions to domestic work remain largely unchanged—highlighting enduring asymmetries in gender norms and bargaining power within households (Amarante et al., 2024).

Mexico gradually introduced unilateral divorce at the state level, beginning with Mexico City in 2008 and followed by staggered adoption across other states over the next decade. This legal change allowed either spouse to dissolve the marriage without the other’s consent, replacing the previous fault-based system. This staggered implementation offers a valuable natural experiment to examine how altering the legal basis of marital dissolution can affect intra-household dynamics among married couples. Prior research shows that this reform led to a substantial increase in divorce rates: Aguirre (2019) estimates a 26.4% rise in adopting states, while Hoehn-Velasco and Penglase (2021b) confirm a sharp increase in divorce filings—especially among women—and a decline in spousal alimony settlements. However, the consequences extend beyond divorce. Evidence from Hoehn-Velasco and Penglase (2021a) suggests that while the reform did not significantly boost married women’s labor force participation overall, it did lead to modest increases in hours worked among those already employed, pointing to underlying constraints such as social norms and limited access to formal employment. Moreover, García-Ramos (2021) finds that, in the long run, unilateral divorce increased intimate partner violence (IPV) among women who remained married—consistent with theories positing that men may use violence to reduce their partner’s likelihood of exit.

To investigate how unilateral divorce laws influence intra-household time allocation, we combine data from two complementary sources. The first is the National Survey of Occupation and Employment (ENOE), a large-scale rotating panel survey conducted quarterly since 2005. The ENOE provides rich information on labor market participation and time use, with national and state-level representativeness. We use data from 2005 to 2019, leveraging its panel structure to construct indicators of cumulative exposure to unilateral divorce laws at the individual level. The second source is the National Survey of Time Use (ENUT), a cross-sectional dataset that offers detailed measures of time spent on market work, household production, core housework, childcare, leisure, and sleep. We use the four available rounds of ENUT—2002, 2009, 2014, and 2019—which allow us to study changes in time use across different cohorts and reform periods. Together, these datasets enable us to capture both

short- and long-term adjustments in time allocation following legal changes that alter the intra-household bargaining environment.

We use different regression methods. First, we begin by running the conventional fixed effects, then we include the difference-in-difference estimator with multiple periods treatment by [Callaway and Sant'Anna \(2021\)](#). We also include event studies to check how the effect changes over time.

Our results go in line with a previous finding on the effect of unilateral divorce on the labor market. [Hoehn-Velasco and Penglase \(2021a\)](#) find that married women increase the number of work hours, which could be a mechanism for how they change their dynamic at home. However, it contradicts other results that state that women decrease their bargaining power based on the increase in domestic violence.

This paper has several contributions. First, we analyze the effect of unilateral divorce on time allocation, a topic that needs more evidence in developing countries. Second, the results seem to contradict the fact that unilateral divorce decreases the bargaining power of married Mexican women, which provides new evidence for other developing countries on where this law may be implemented. Third, we use current methods that have proven to have less bias when the treatment has a staggered implementation.

This paper is organized as follows. Section 2 provides a context about Mexican divorce law and its implementation. Section 3 explains the details about the datasets included - ENOE and ENUT. Sections 4 and 5 include the empirical strategy and results, respectively, and Section 6 concludes.

2 Context: Unilateral divorce in Mexico

Table 1 presents information on the implementation of unilateral divorce laws. The first date indicates when the law was passed, and the second denotes when it went into effect. Mexico City was the first state to implement the law in 2008. Between 2008 and 2019, 24 states adopted the law, leaving 8 states to serve as the control group.

Region	State	Unilateral Divorce Law	Date Law	Law (forced)
Central	Mexico City	✓	10/2008	10/2008
	Guanajuato			
	Hidalgo	✓	03/2011	05/2011
	Mexico	✓	05/2012	05/2012
	Morelos	✓	03/2016	03/2016
	Puebla	✓	03/2016	03/2016
	Queretaro	✓	11/2016	12/2016
	Tlaxcala	✓	02/2016	02/2016
North	Aguascalientes	✓	06/2015	08/2015
	Baja California			
	Baja Cal. Sur	✓	12/2016	01/2017
	Coahuila	✓	04/2013	05/2013
	Chihuahua			
	Durango			
	Nuevo Leon	✓	12/2016	03/2017
	San Luis Potosi	✓	05/2017	05/2017
	Sinaloa	✓	02/2013	03/2013
	Sonora			
	Tamaulipas	✓	07/2015	07/2015
Zacatecas	✓	09/2017	03/2018	
West	Colima	✓	03/2016	03/2016
	Jalisco	✓	10/2018	11/2018
	Michoacan	✓	09/2015	09/2015
	Nayarit	✓	05/2015	05/2015
	Campeche			
South East	Chiapas	✓	01/2019	01/2019
	Guerrero	✓	03/2012	05/2012
	Oaxaca	✓	04/2017	05/2017
	Quintana Roo	✓	05/2017	07/2017
	Tabasco			
	Veracruz			
	Yucatan	✓	04/2012	02/2013

Table 1: Unilateral Divorce Laws 2005–2019

After the unilateral divorce law was implemented, the number of divorces increased sharply in those states. For example, Table 2 shows the number of divorces per 100 marriages, provided by the National Institute of Statistics and Geography (INEGI). States like Aguascalientes went from 19.9 in 2014 to 54 in 2016. Similarly, states such as Nuevo León, Coahuila, and Sinaloa nearly doubled the number of divorces per 100 marriages in less than ten years. This provides compelling evidence that mutual consent divorces were deterring individuals from accessing divorce, which was in fact improved by the unilateral divorce legislation.

States	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
All States	15.1	16.0	17.0	18.6	19.6	22.2	25.7	27.9	31.2	31.7
Aguascalientes	21.4	18.7	22.8	23.9	19.9	25.2	54.0	54.5	53.6	48.6
Baja California	19.4	21.4	18.8	19.5	17.7	21.0	21.5	20.0	22.7	24.5
Baja California Sur	17.7	24.4	26.1	29.7	27.9	26.9	38.3	35.2	47.5	42.8
Campeche	19.7	20.0	21.6	24.5	26.6	24.3	57.0	50.0	45.7	55.2
Coahuila de Zaragoza	21.0	21.5	23.8	34.8	42.0	36.0	38.5	30.8	42.2	50.2
Colima	27.9	25.9	19.4	22.2	26.3	26.9	31.6	41.7	40.6	37.1
Chiapas	7.5	7.7	8.8	7.5	7.5	10.3	13.2	11.8	12.1	14.4
Chihuahua	30.5	34.9	33.1	32.3	31.5	35.1	43.8	55.9	56.9	53.6
Ciudad de México	32.1	32.4	31.3	29.8	27.9	36.8	39.3	40.9	48.0	44.5
Durango	13.2	14.7	16.7	16.7	20.1	23.6	23.8	28.7	28.8	26.6
Guanajuato	15.5	16.6	15.3	18.3	19.4	22.4	24.1	26.8	30.2	34.2
Guerrero	5.7	5.6	7.4	11.3	10.6	10.3	13.4	18.4	24.6	24.8
Hidalgo	13.1	13.3	18.9	21.3	24.2	23.5	24.7	28.0	30.7	38.3
Jalisco	10.8	11.2	10.9	10.6	10.9	11.6	12.5	12.5	13.9	15.2
México	12.2	13.9	17.8	26.0	27.8	28.9	29.0	30.5	31.8	32.0
Michoacán de Ocampo	10.3	12.4	13.4	14.2	14.6	17.3	19.5	21.7	25.4	26.9
Morelos	16.6	16.3	17.7	18.1	17.5	20.9	18.1	14.9	18.0	23.1
Nayarit	16.2	15.6	17.7	20.0	18.3	19.7	23.2	30.7	29.8	27.9
Nuevo León	24.1	25.5	28.0	25.2	31.7	35.1	56.3	66.0	63.8	56.0
Oaxaca	3.0	2.7	3.7	5.1	5.7	6.8	7.5	8.1	13.8	16.0
Puebla	11.4	12.5	13.8	16.1	18.3	16.0	14.1	20.9	24.4	23.2
Querétaro	18.0	17.9	17.5	21.7	23.0	28.0	30.4	33.8	33.0	30.8
Quintana Roo	16.1	17.7	11.2	10.2	14.0	17.0	17.8	17.4	28.6	28.5
San Luis Potosí	12.2	13.1	13.2	13.2	11.6	13.2	13.8	20.0	38.2	30.8
Sinaloa	19.8	20.6	22.0	24.4	32.5	33.3	36.5	41.8	44.7	50.1
Sonora	20.1	19.6	20.8	20.4	20.9	21.2	24.5	29.0	37.1	35.3
Tabasco	14.8	14.9	16.4	13.3	14.2	15.7	16.7	15.2	19.1	21.5
Tamaulipas	10.3	11.1	12.9	11.5	11.6	20.3	29.0	42.6	46.5	45.0
Tlaxcala	6.2	7.9	7.9	8.5	13.1	10.7	13.6	14.5	18.6	19.6
Veracruz	11.0	10.9	11.1	12.3	10.8	12.6	14.2	12.3	13.4	11.8
Yucatán	16.9	20.5	20.7	15.4	13.6	24.9	21.3	24.1	23.9	26.4
Zacatecas	15.0	15.4	18.8	20.4	20.7	21.3	24.1	29.8	28.9	35.1

Table 2: Number of Divorces per 100 Marriages by States, 2010–2019 (INEGI)

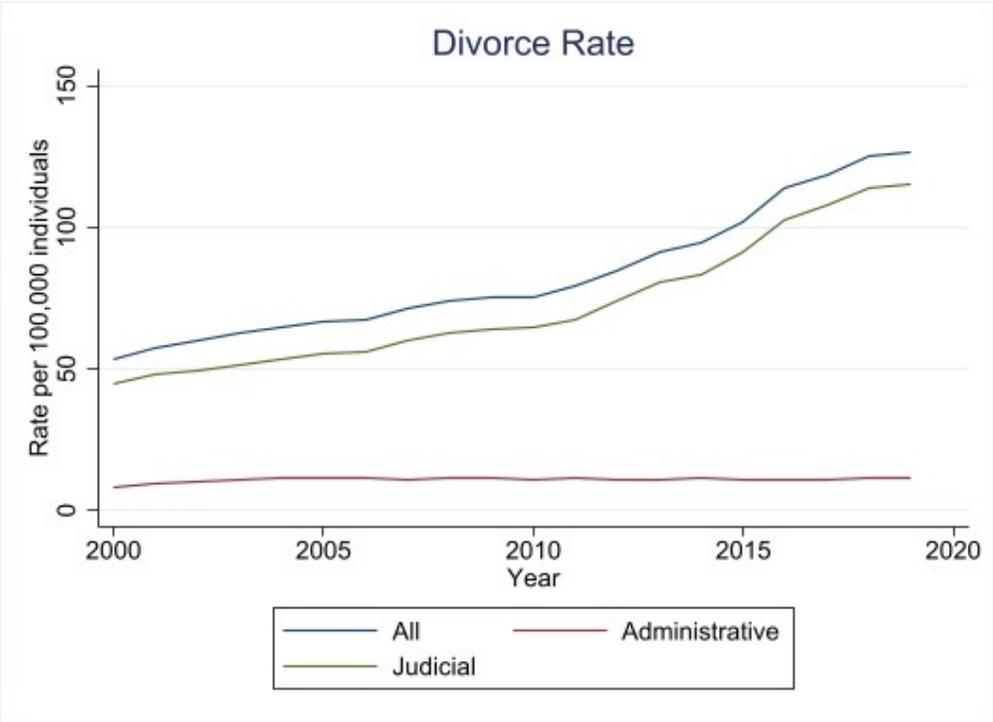


Figure 1: Divorce Rate, by type. INEGI 2000-2019.

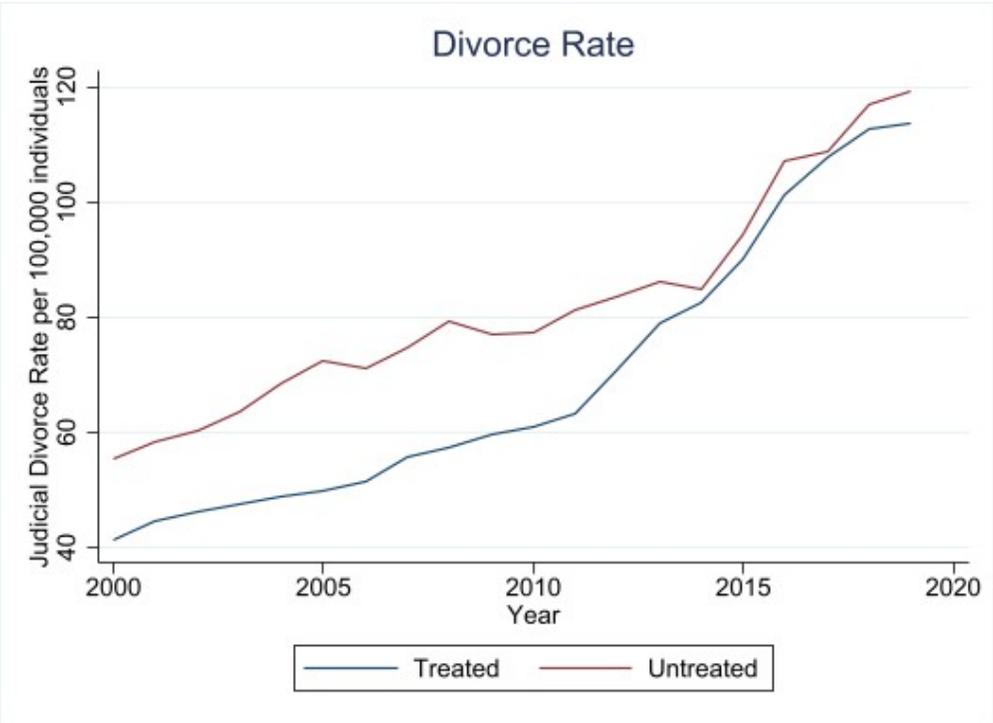


Figure 2: Judicially Divorce Rate, by treatment states. INEGI 2000-2019.

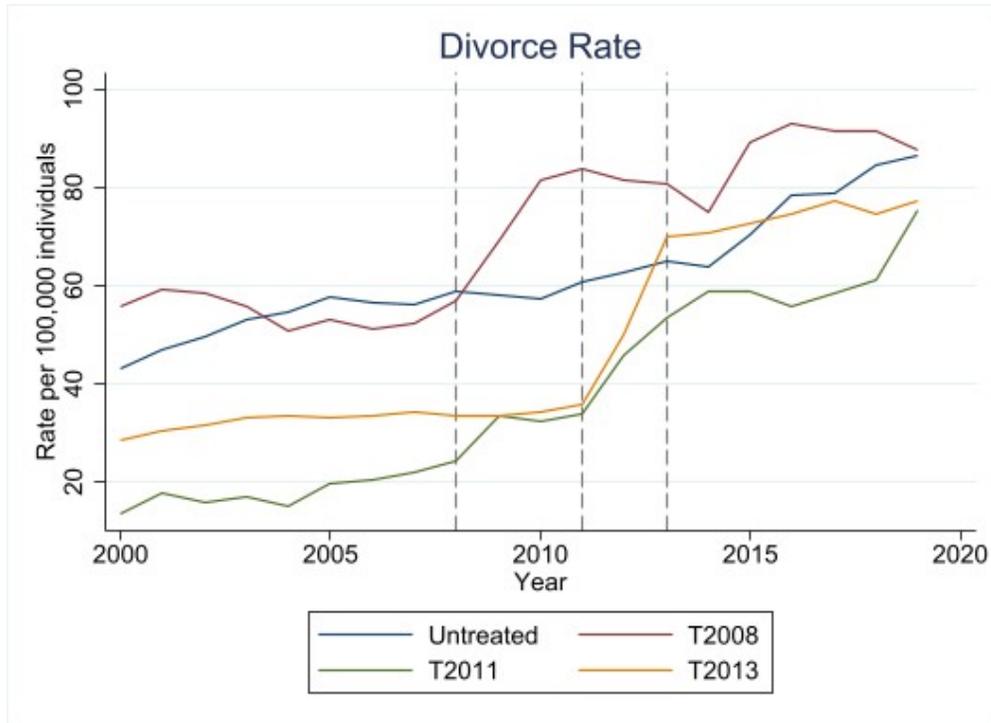


Figure 3: Divorce Rate, by cohorts of treated states. INEGI 2000–2019.

3 Data

We primarily used the national survey on time use (ENUT, for its acronym in Spanish) for our analysis. In addition, we added the National Survey of Occupation and Employment (ENOE for its acronym in Spanish) to check if our results hold under a different source of information. Even though the ENOE is the largest and most representative survey in Mexico, it does not include detailed time use variables, so we leave it as a robustness check rather than our main analysis.

3.1 ENUT

ENUT collects information on remunerated and non-remunerated work, time use in daily activities— including hobbies, entertainment, and sports— as well as perceptions of welfare and well-being. The survey targets individuals aged 12 and older and covers both urban and rural areas, with national and state-level statistical representation. ENUT has four rounds of data collection: 2002, 2009, 2014, and 2019, which allows us to observe pre- and post-policy implementation periods. For the purposes of this study, we restrict the sample to individuals aged 15 to 65, focusing on the working-age population whose time allocation is more directly shaped by labor market participation and household responsibilities.

Following Genadek (2018), we define five aggregate measures of time use: market work, household production, core housework, childcare, and leisure. The time allocation measures are constructed by summing the total minutes spent in each activity over the 24-hour diary and converting them to weekly totals. These categories are based on standard classifications used in previous time-diary studies, particularly those in Aguiar and Hurst (2007). Core housework includes activities such as cooking, washing dishes, cleaning the house, ironing, and doing laundry. Household production encompasses all activities in core housework, and additionally includes time spent on household maintenance and repairs. Childcare refers to time devoted to caring for children, including feeding, bathing, playing, and helping with homework. Market work captures time spent in paid employment or income-generating activities, while leisure includes activities such as watching television, reading, engaging in hobbies, or participating in sports. All time-use variables are expressed in minutes per week, based on the time reported for each activity during the reference period.

As covariates, we included a set of individual and household characteristics typically associated with time allocation decisions. These include age and age squared, a binary variable indicating whether the individual has completed higher education, and two indicators capturing the presence of young children in the household—one for children under six years old and another for children between six and twelve. We also include a dummy variable indicating whether the individual is currently employed, and an indicator for urban residence to account for differences in infrastructure, services, and time constraints between rural and urban settings.

To measure access to domestic support, we incorporate a variable that captures whether the respondent receives help with household tasks. This variable is available in most survey waves; however, for the 2002 round, we approximate it using information on non-resident household members who report contributing to domestic chores. Finally, we construct an index of socioeconomic status (*ses*) using principal component analysis (PCA) based on a set of asset ownership variables (Vyas and Kumaranayake, 2006). Further details on the construction and distribution of this index are provided in the Appendix.

Table 3 presents some descriptive statistics about the sample. We see that the average age of respondents is approximately 38 years, with substantial variation across the working-age population (standard deviation of 13.2 years). About 31% of individuals have completed higher education, and 75% reside in urban areas. Regarding household composition, 39% report having children between the ages of 6 and 12, while 33% have children under 6, suggesting that a significant portion of the sample faces caregiving responsibilities. A majority of respondents (56%) are currently employed, and women represent 53% of the sample. Only 4% report receiving help with domestic tasks—a figure that may reflect both limited access

	<i>N</i>	Mean	Standard deviation	Min.	Max.
Receives domestic help	106779	0.04	0.19	0.00	1.00
Age	106779	37.80	13.15	18.00	65.00
Higher education	106760	0.31	0.46	0.00	1.00
ses	106683	0.00	1.00	-2.76	2.11
Children aged 6–12	106779	0.39	0.49	0	1
Children under 6	106779	0.33	0.47	0	1
Employed	106779	0.56	0.50	0	1
Urban area	106779	0.75	0.43	0	1
Woman	106779	0.53	0.50	0	1

Table 3: ENUT 2002, 2009, 2014, and 2019. Sample restricted to individuals aged 15 to 65.

to such support and measurement differences across survey waves, particularly in 2002. The socioeconomic status index, constructed via principal component analysis using household asset ownership, is standardized with mean zero and ranges from -2.76 to 2.11 .

Figure 4 reveals stark gender differences in weekly time allocation across key activity domains. Married men dedicate nearly three times more minutes to market work than women (3,003 vs. 1,116), while women spend considerably more time on unpaid work. Specifically, women allocate 2,746 minutes per week to household production compared to 755 minutes for men, and they also devote more time to childcare (790 vs. 215 minutes) and core housework (1,302 vs. 98 minutes). In terms of leisure, men report slightly more time (1,716 vs. 1,542 minutes), whereas sleep time is broadly similar between genders, with women averaging just under 100 minutes more per week.

Figure 5 shows the evolution of weekly time allocation by gender across three main activity categories—market work, household production plus childcare, and leisure—for individuals aged 15 to 65. Over the 2002–2019 period, market work among women increased steadily, while men’s market work declined significantly until 2009 and then plateaued. In contrast, women’s time dedicated to unpaid domestic responsibilities decreased sharply between 2002 and 2009, but has since rebounded slightly, though it remains well above men’s levels. Men’s time in household production and childcare increased modestly over the period. Leisure time declined slightly for men until 2014 and then stabilized, whereas women’s leisure time remained relatively flat throughout.

While the previous figure shows how time use evolved over time, Figures 6 and 7 explore how institutional context—in particular, the prevailing divorce regime—is associated with gendered patterns in weekly time allocation. Among women, unilateral divorce is associated with a reallocation of time toward market work and leisure: women in these states spend on average 1,812 minutes per week in market work and 1,640 minutes in leisure, compared to 1,543 and 1,486 minutes, respectively, in mutual consent states. Concurrently, time spent on

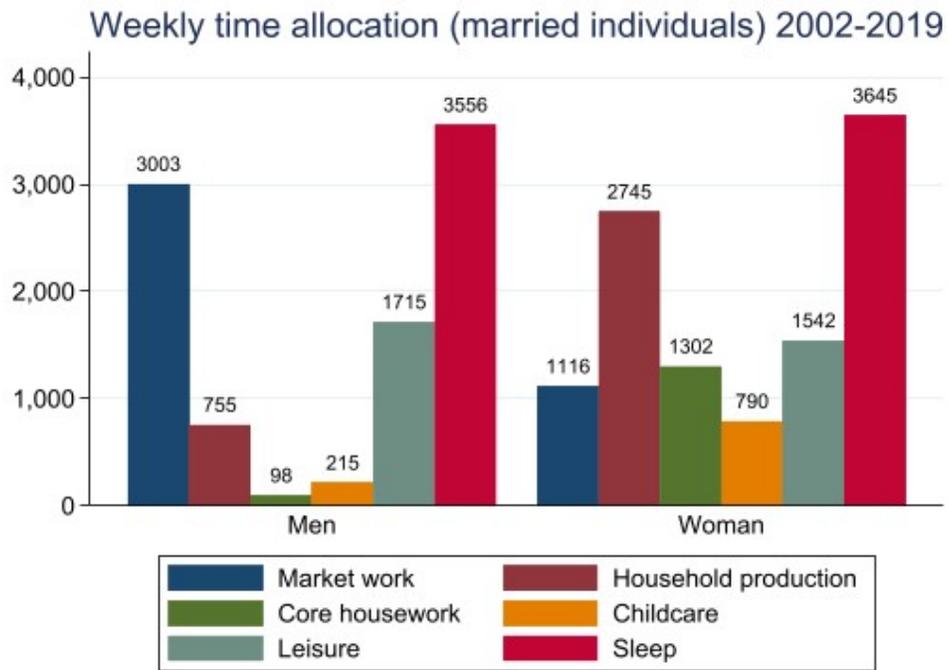


Figure 4: Average weekly minutes spent on different activities by gender. Data from the ENUT (2002, 2009, 2014, and 2019) restricted to married individuals aged 15 to 65.

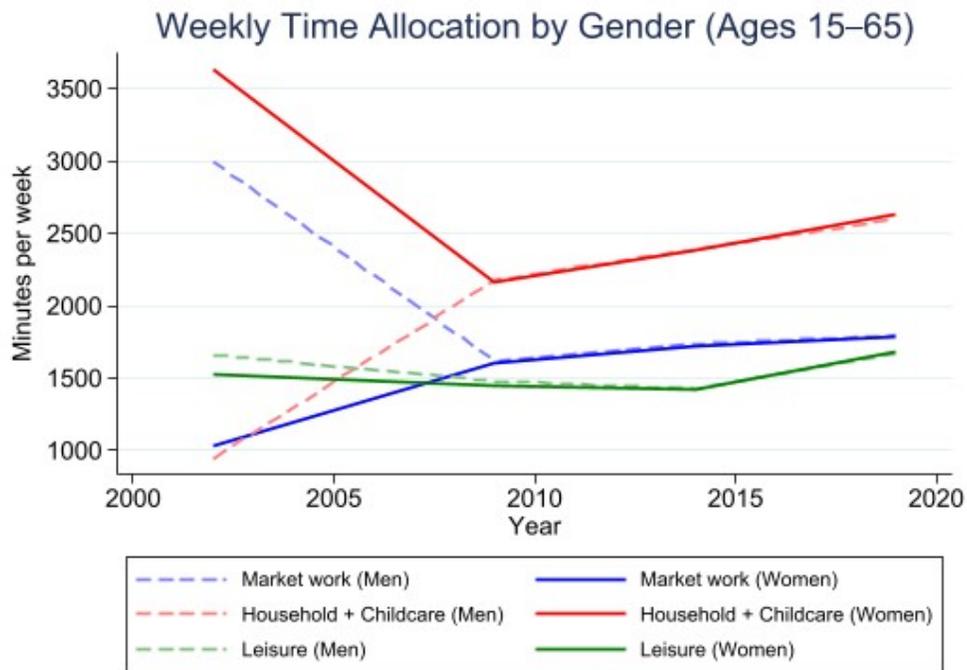


Figure 5: ENUT data for individuals aged 15 to 65. Trends in weekly minutes spent on market work, household production plus childcare, and leisure, disaggregated by gender.

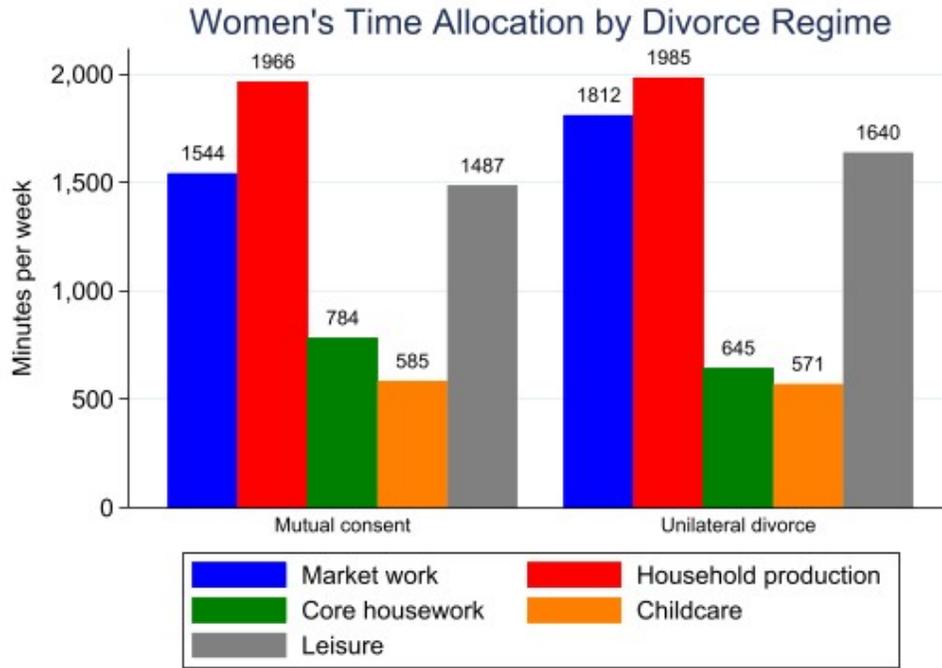


Figure 6: Weekly time allocation among women aged 15–65, by divorce regime. ENUT 2002–2019.

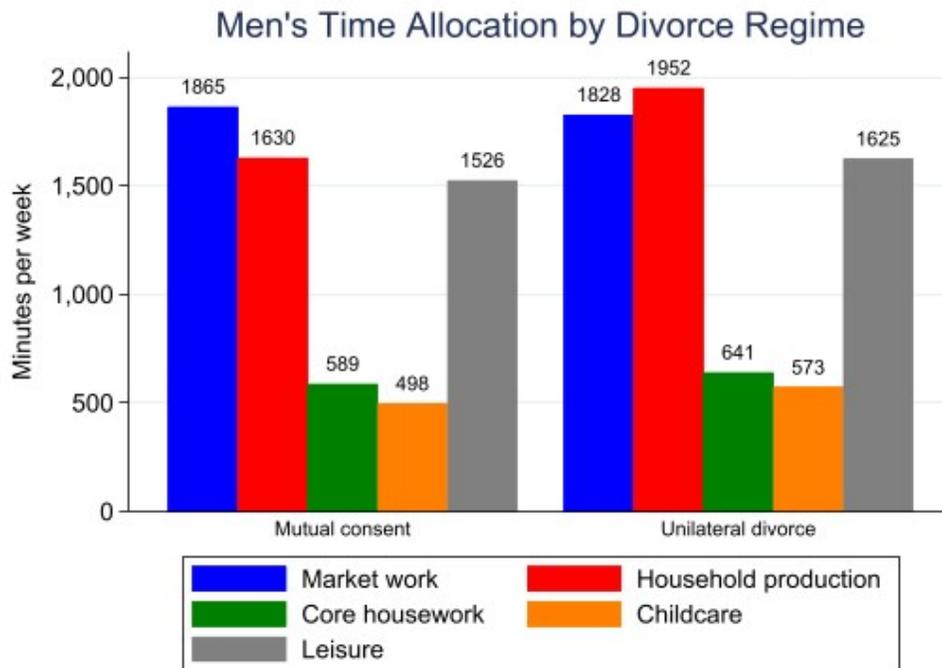


Figure 7: Weekly time allocation among men aged 15–65, by divorce regime. ENUT 2002–2019.

unpaid domestic responsibilities—such as household production (1,985 vs. 1,966 minutes), core housework (645 vs. 784), and childcare (571 vs. 585)—is modestly lower under unilateral divorce. For men, the patterns are more muted but directionally similar. In unilateral divorce states, men report slightly less time in market work (1,828 vs. 1,866 minutes) but more time in household production (1,952 vs. 1,630), core housework (641 vs. 588), and childcare (573 vs. 498), alongside a small increase in leisure time (1,625 vs. 1,526). These patterns suggest that the introduction of unilateral divorce may shift the intra-household allocation of time, leading to modest convergence in gender roles, with women increasing their economic autonomy and men taking on a slightly greater share of domestic work.

3.2 ENOE

ENOE provides information for people aged 15 years and older about their employment situation, work hours, occupations, informality, unemployment, and time allocation. It has information for 32 states -all of them- and for 39 cities. The survey is a rotating panel where each household appears in five consecutive quarters, but the data is collected on a monthly basis.

We limited our study to married people who are between 18 and 65 years old, since 18 is the legal age when people can legally get married. We are using monthly data from 2005 to 2019. The categories that we used for time use are different than those in ENUT due to survey discrepancies in the questions. We have 9 categories related to time use: studying, taking care of someone, repairing, building the house, doing chores, sharing with the community, shopping, taking someone to school, or working. These categories are also measured in minutes per week. Given the availability of variables, we use as covariates the variables related to education, income, number of children, and access to domestic services.

Table 4 summarizes the main variables we use in the ENOE. The sample has 52% women, the population mean age is 42 years, they have on average 3 kids and spend around 27 hours working. The number of observations varies because not all the variables started to be collected in the same year.

Figure 8 shows the average time allocation for men and women from 2005 to 2019. Men work 41.25 hours a week, and women around 14 hours. Regarding household activities, chores and taking care of someone at home are the ones where women spend approximately 28 and 10 hours, respectively. Men seem to dedicate fewer hours to those, spending only 3.45 and 2.2 hours, respectively. Even though the minutes reported for these activities in the ENOE are lower than those presented in the ENUT survey, the proportions remain similar; for instance, the time men allocate to market work is almost three times that of women in

Variable	N	Mean	SD	Min	Max
Women	6919367	0.52	0.50	0	1
Years Education	6909537	9.02	4.56	0	24
Income	6919367	2762.87	5285.00	0	900000
Number of Kids	6508883	2.99	2.00	0	25
Age	6919367	42.60	11.48	18	65
Minutes Working	6919367	1618.86	1507.11	0	10080
Minutes Studying	6919367	16.08	160.47	0	5820
Minutes Taking Care	6919367	368.58	698.01	0	5820
Minutes Doing Chores	5545054	967.94	951.61	0	5820
Minutes Building the House	6919367	203.18	596.55	0	5879
Minutes Repairing	6919367	16.29	103.91	0	5820
Minutes with the Community	5545054	5.60	75.40	0	5722
Minutes Shopping	4439799	104.86	169.67	0	5820
Minutes Taking Someone to School	3515278	34.67	110.89	0	5520

Table 4: Descriptive Statistics ENOE, 2005–2019

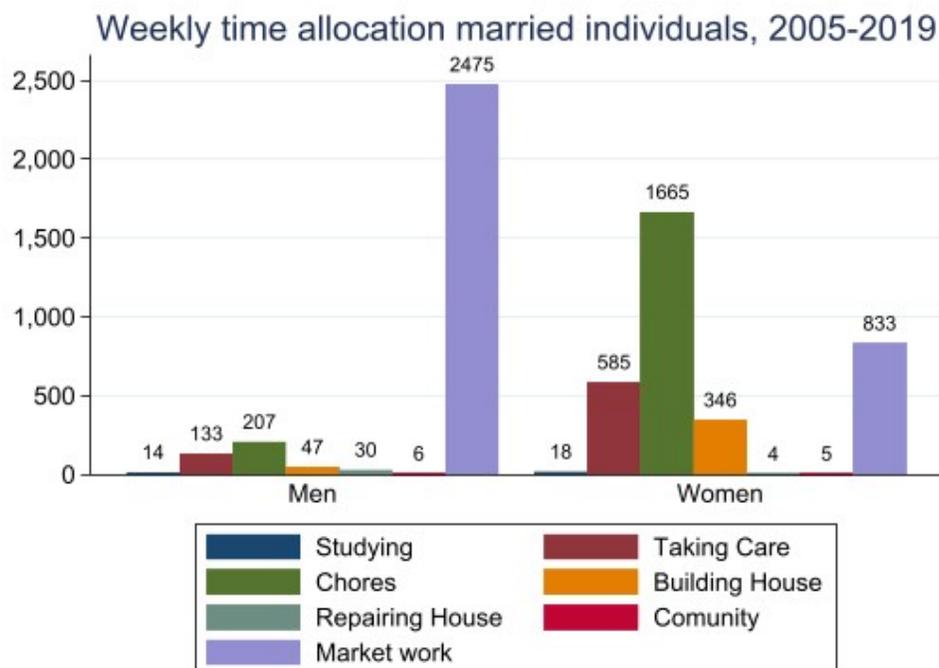


Figure 8: Average weekly minutes spent on different activities by gender. ENOE 2005–2019.

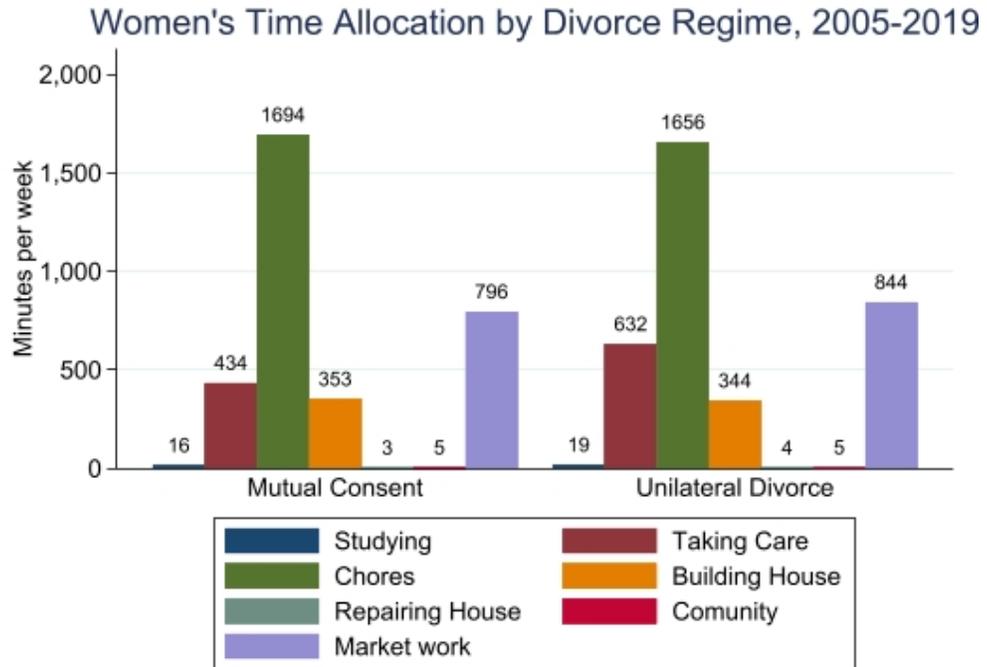


Figure 9: Weekly time allocation among women aged 18–65, by divorce regime. ENOE 2005–2019.

both surveys.

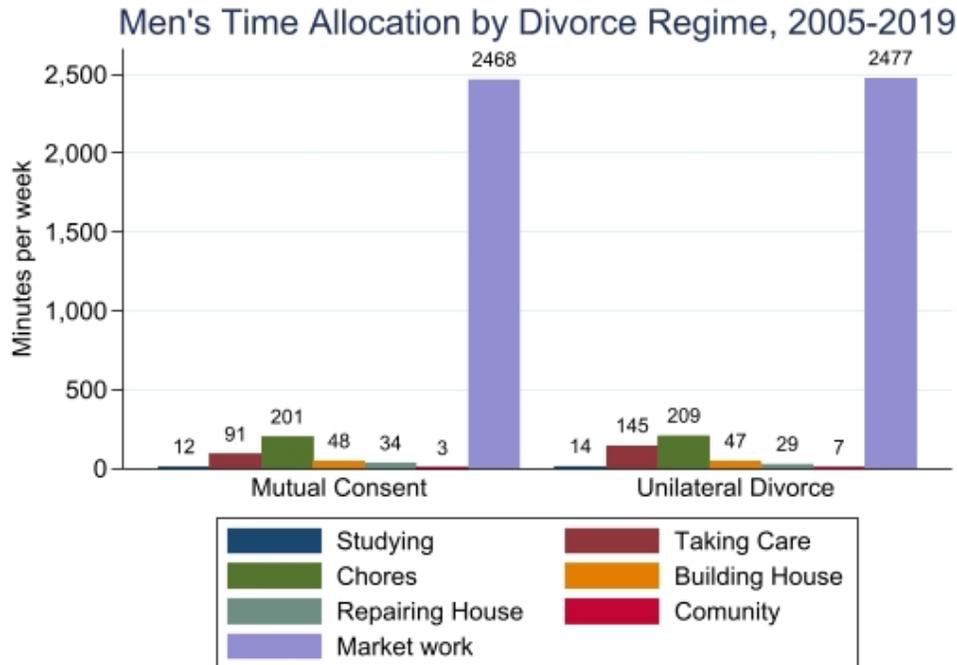


Figure 10: Weekly time allocation among men aged 18–65, by divorce regime. ENOE 2005–2019.

4 Methodology

To identify the effect of divorce law on time allocation, we use difference-in-difference regressions and event studies. The first difference is the treated group, which consists of those states that implemented the unilateral or non-fault divorce law. The second difference is that, after the implementation, however, as it did not occur at the same time, it differs across states, with the first one starting in 2008. Equation (1) describes our approach.

$$y_{ist} = \beta_0 + \beta_1 Treat_s * Pos_t + X_{its} + \gamma_s + \theta_t + \epsilon_{its} \quad (1)$$

Where y_{ist} is the time used for any of the categories (i.e., market work, household production, core housework, childcare, leisure) for individual i in the state s at time t . $Treat_s$ is a variable that takes the value of one for those states that have implemented unilateral divorce and zero otherwise. Pos_t is a dummy variable related to the time when the unilateral divorce was implemented. X_{its} represents the covariates, γ_s state fixed effects, θ_t time fixed effects (quarters or years), and the error term ϵ_{its} .

$$y_{ist} = \beta_0 + \sum_{k=0}^3 \beta_k \cdot \text{Reform}_{st}^k + X_{its} + \gamma_s + \theta_t + \epsilon_{its} \quad (2)$$

To estimate the dynamic effects of unilateral divorce laws on individuals’ time allocation, we rely on the event study specification presented in equation (2). This approach allows us to examine how outcomes evolve in the years before and after the implementation of unilateral divorce across different states. One key advantage of using the ENUT dataset is that it contains four waves spanning nearly two decades (2002, 2009, 2014, and 2019), which provides sufficient variation in timing across states and enables the study of both short- and long-term effects of the reform.

Following a strategy similar to that of [García-Ramos \(2021\)](#), we exploit the fact that some states—such as Ciudad de México, Hidalgo, Sinaloa—have been exposed to the reform for multiple survey waves. This variation allows us to distinguish between states with recent exposure to unilateral divorce and those with longer-term exposure. In our context, β_k trace out how individuals’ time use evolves with increasing exposure to unilateral divorce laws across survey waves. This approach allows us to compare states that have been recently exposed to the reform with those that have experienced the reform for multiple periods, capturing potential dynamic adjustments in intra-household behavior and gendered time allocation.

5 Results

5.1 Empirical Estimates - ENUT

Using specification (2), we estimate separate regressions for married women (Table 5) and married men (Table 6) to evaluate how the divorce regime is associated with time allocation in key activity domains. The dependent variables are weekly minutes spent on market work, household production, core housework, childcare, and leisure.

Table 5 presents the estimated effects of cumulative exposure to unilateral divorce laws on the weekly time allocation of married women. The coefficients on k_1 , k_2 , and k_3 represent the effect of being exposed to the reform for one, two, and three survey waves, respectively, relative to no exposure. Across most outcomes—namely market work, household production, core housework, and leisure—we do not find evidence of either short- or long-term effects associated with exposure to unilateral divorce laws. In contrast, for childcare, we observe a clear pattern: unilateral divorce is associated with a reduction in the time women allocate to this activity, with the effect emerging in the short term and becoming larger and statistically

significant in the longer term. This finding is consistent with the notion that increased outside options may shift bargaining dynamics within the household, allowing women to reduce time spent on caregiving responsibilities.

	(1)	(2)	(3)	(4)	(5)
	Market work	household production	Core housework	Childcare	Leisure
k_1	-22.557 (55.005)	87.160 (65.602)	24.920 (48.799)	-213.790* (115.924)	46.997 (55.739)
k_2	-130.842 (84.714)	108.258 (143.372)	-2.070 (87.383)	-419.117* (213.730)	87.466 (106.509)
k_3	-56.873 (113.422)	169.591 (185.523)	-87.446 (120.661)	-743.915** (286.183)	53.785 (124.860)
Receives domestic help	-75.735 (45.507)	27.781 (48.463)	18.942 (39.899)	10.699 (65.156)	-86.638* (48.163)
Age	11.028*** (3.147)	-5.928 (6.438)	-4.919 (4.060)	-5.018 (6.779)	18.817*** (6.237)
Age ²	-0.130*** (0.037)	0.072 (0.078)	0.059 (0.052)	0.079 (0.090)	-0.238*** (0.079)
Higher education	23.278 (31.917)	184.094*** (31.303)	91.830*** (22.279)	358.695*** (27.215)	323.713*** (23.458)
<i>ses</i>	18.249 (12.297)	-13.899 (12.471)	-8.628 (8.798)	-29.235* (16.692)	-15.518 (17.598)
Children aged 6–12	-16.816 (30.414)	16.054 (38.368)	2.341 (23.485)	41.659 (30.683)	-47.062** (21.468)
Children under 6	30.700 (24.441)	19.200 (24.242)	17.045 (13.613)	12.637 (24.210)	-17.688 (32.615)
Employed	2,916.898*** (41.754)	-1,051.706*** (37.377)	-641.136*** (22.424)	-313.778*** (25.785)	-273.327*** (34.091)
Urban area	9.517 (35.701)	-126.913* (65.097)	8.507 (25.215)	-42.277 (32.232)	72.732*** (25.689)
State fixed effects	✓	✓	✓	✓	✓
Time fixed effects	✓	✓	✓	✓	✓
<i>N</i>	14,739	14,739	14,739	14,739	14,739
<i>R</i> ²	0.640	0.151	0.158	0.039	0.072

Standard errors clustered at the state level in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 5: Effect of unilateral divorce on weekly time use among married women.

Turning to the results for men, shown in Table 6, we examine how cumulative exposure to unilateral divorce reforms correlates with changes in married men’s weekly time allocation. Unlike the case of women, a clearer pattern emerges in household production and childcare. After three waves of exposure, men increase their time spent on household production by 513 minutes per week ($p < 0.01$) and reduce time allocated to childcare by 480 minutes ($p < 0.05$). These results suggest that unilateral divorce may be associated with a reallocation of domestic responsibilities among men, particularly in routine house-related tasks. We find no statistically significant effects on market work or core housework across any exposure period. A marginally significant reduction in leisure time at k_3 (–223 minutes, $p < 0.1$) may reflect a trade-off with increased household engagement. Overall, the evidence points to modest but meaningful behavioral adjustments among men following sustained exposure to unilateral

divorce reforms.

	(1)	(2)	(3)	(4)	(5)
	Market work	household production	Core housework	Childcare	Leisure
k_1	-5.925 (58.683)	100.556 (76.609)	41.734 (51.058)	-111.541 (129.938)	-0.685 (44.425)
k_2	29.334 (110.500)	181.131 (122.290)	22.480 (81.986)	-240.804 (178.002)	-164.271 (101.454)
k_3	69.537 (148.647)	512.532*** (144.347)	131.618 (95.280)	-480.334** (212.253)	-222.620* (118.657)
Receives domestic help	-137.172** (65.851)	-82.997 (52.511)	-27.210 (35.587)	4.549 (64.158)	-37.016 (67.919)
Age	-2.751 (7.359)	5.539 (7.780)	1.692 (3.436)	-2.119 (5.229)	6.311 (4.078)
Age ²	0.047 (0.092)	-0.075 (0.100)	-0.020 (0.045)	0.029 (0.068)	-0.086* (0.045)
Higher education	32.868 (25.378)	155.826*** (31.504)	74.766*** (19.294)	389.258*** (23.769)	347.270*** (33.478)
<i>ses</i>	38.193 (22.730)	-1.629 (13.684)	-12.802 (10.444)	-36.232 (21.476)	-9.076 (15.561)
Children aged 6–12	-7.058 (27.838)	5.171 (26.535)	19.414 (17.880)	76.288** (36.877)	45.358** (20.154)
Children under 6	2.193 (25.590)	-64.952 (39.660)	-39.102* (19.416)	24.254 (34.010)	-11.086 (19.807)
Employed	2.193 (25.590)	-64.952 (39.660)	-39.102* (19.416)	24.254 (34.010)	-11.086 (19.807)
Urban area	51.749* (29.680)	-178.305*** (48.870)	-14.655 (17.209)	-60.239 (38.498)	92.357*** (26.058)
State fixed effects	✓	✓	✓	✓	✓
Time fixed effects	✓	✓	✓	✓	✓
N	12,830	12,830	12,830	12,830	12,830
R^2	0.651	0.144	0.158	0.043	0.076

Standard errors clustered at the state level in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 6: Effect of unilateral divorce on weekly time use among married men.

Given that the treatment—exposure to unilateral divorce laws—varies at the state level, and that unobserved determinants of time use may be correlated within states over time, all regressions cluster standard errors at the state level. This approach aligns with the identification strategy and accounts for serial correlation in state-level unobservables, following the logic outlined in [Bertrand et al. \(2004\)](#); [García-Ramos \(2021\)](#); [Nichols and Schaffer \(2007\)](#) and consistent with other empirical applications of staggered legal reforms.

Table 7 has the results of the estimation of the [Callaway and Sant’Anna \(2021\)](#) method. It indicates a reduction in women’s time spent on childcare activities. This finding aligns with the previous two ways fixed-effects results, confirming that married women in unilateral states decreased the time they dedicated to childcare. Event study show that the effect grows with time (See Figure 11).

	(1)	(2)	(3)	(4)	(5)
	Market work	Household production	Core housework	Childcare	Leisure
<i>Women</i>					
ATT	-3.004	64.542	-0.690	-198.115***	47.052
	(46.993)	(58.952)	(35.842)	(53.153)	(48.027)
<i>Men</i>					
ATT	68.839	23.081	-11.185	-37.738	-117.703
	(83.102)	(75.442)	(49.478)	(92.273)	(78.431)
<i>N</i> (Women)	17,785	17,785	17,785	17,785	17,785
<i>N</i> (Men)	15,586	15,586	15,586	15,586	15,586

Standard errors in parentheses. Estimates from `csdid` using bootstrap.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 7: DiD regressions, Effect of Unilateral Divorce on Weekly Time Use among Married Women and Men

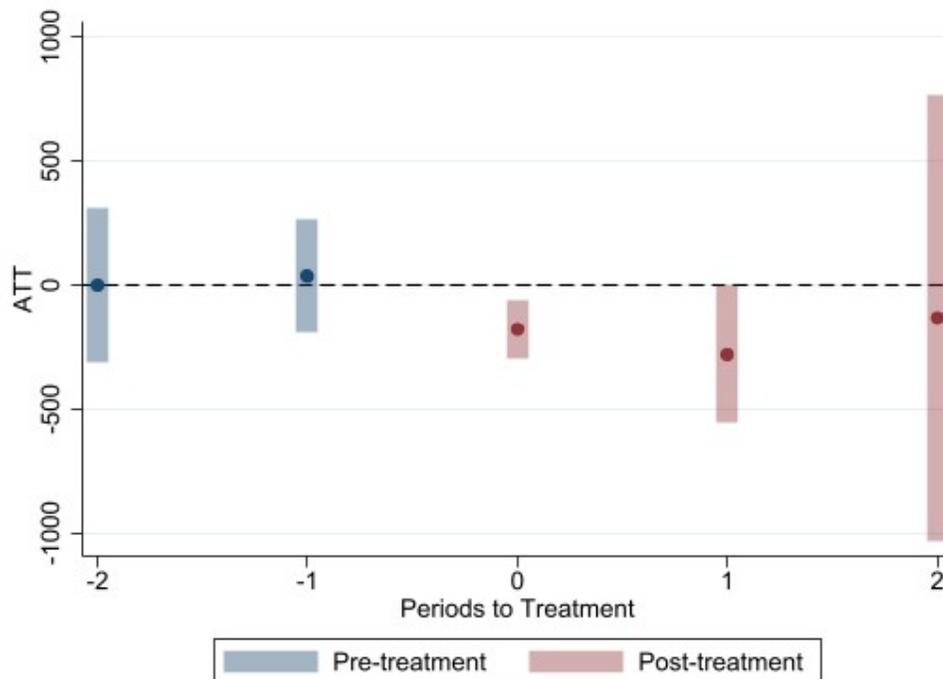


Figure 11: Event Study for Women: Effects on Time Use for Childcare

5.2 Empirical Estimates - ENOE

Similarly to what we did with ENUT, we analyze the changes in time use for women and men separately. Table 8 presents the regressions for Equation (1) for women. The results are consistent with the ENUT findings, where women reduced the weekly time dedicated to taking care of someone (i.e., a child) by 78.6 minutes. They also decreased the time spent on activities such as building, repairing the house, and sharing with the community, but increased it for working and shopping. The changes on minutes working are consistent with [Hoehn-Velasco and Penglase \(2021a\)](#), which identifies that married women in states with unilateral divorce did not increase their labor participation, but they raised the number of hours dedicated to work.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Working	Studying	Taking Care	Doing Chores	Building the House	Repairing the House	With the Community	Shopping	Going to School
Treatment	10.693** (5.299)	0.105 (0.785)	-78.608*** (3.287)	18.360*** (3.277)	-5.965*** (1.411)	-1.156*** (0.186)	-0.419* (0.245)	5.419*** (0.643)	0.059 (0.557)
Year Education	7.406*** (0.834)	3.297*** (0.065)	10.859*** (0.260)	-11.609*** (0.308)	-2.384*** (0.117)	0.089*** (0.015)	0.196*** (0.022)	1.264*** (0.054)	1.690*** (0.047)
Income	0.156*** (0.004)	0.000*** (0.000)	-0.016*** (0.000)	-0.041*** (0.001)	-0.008*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.001*** (0.000)	-0.001*** (0.000)
Number of kids	-25.718*** (0.865)	0.528*** (0.077)	42.739*** (0.505)	19.958*** (0.550)	3.586*** (0.250)	-0.034 (0.035)	0.071* (0.041)	0.592*** (0.116)	5.287*** (0.100)
Receives domestic help	-71.822*** (8.895)	5.880*** (1.284)	73.379*** (4.959)	-373.830*** (4.830)	-83.922*** (2.561)	0.984*** (0.335)	4.523*** (0.467)	-0.982 (0.964)	12.707*** (0.950)
Age	62.525*** (1.031)	-7.142*** (0.210)	-77.710*** (0.596)	42.826*** (0.544)	9.566*** (0.232)	0.264*** (0.029)	0.357*** (0.041)	4.544*** (0.111)	3.448*** (0.098)
Age ²	-0.728*** (0.012)	0.074*** (0.002)	0.541*** (0.007)	-0.485*** (0.006)	-0.107*** (0.003)	-0.003*** (0.000)	-0.003*** (0.001)	-0.051*** (0.001)	-0.066*** (0.001)
Constant	-606.609*** (21.669)	145.900*** (4.490)	2,629.264*** (12.967)	898.031*** (10.945)	175.229*** (4.676)	-2.737*** (0.604)	-5.583*** (0.793)	31.539*** (2.282)	1.295 (2.103)
State fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓
Time fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓
<i>N</i>	3,595,171	3,595,171	3,595,171	2,882,867	3,595,171	3,595,171	2,882,867	2,303,582	1,824,379
<i>R</i> ²	0.215	0.017	0.208	0.159	0.800	0.002	0.002	0.281	0.072

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 8: Effect of unilateral divorce on weekly time use for women (ENOE sample).

Table 9 provides the findings for males. The results show that males also decreased their time spent on taking care of someone. However, the coefficient is three times smaller than the one for women. We can also highlight that men increased the time dedicated to building their homes and decreased time on leisure activities such as shopping. This is consistent with the opposite behavior observed in women, indicating a possible reallocation within the household, which could result from an increase in bargaining power among Mexican women in places where unilateral divorce was implemented.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Working	Studying	Taking Care	Doing Chores	Building the House	Repairing the House	With the Community	Shopping	Going to School
Treatment	30.339*** (6.100)	-0.587 (0.596)	-25.810*** (1.434)	-5.645*** (1.450)	4.350*** (0.678)	0.261 (0.454)	-0.596** (0.304)	-5.071*** (0.576)	-1.650*** (0.460)
Year Education	-14.098*** (0.535)	2.586*** (0.048)	6.373*** (0.094)	4.288*** (0.102)	0.519*** (0.049)	-0.047 (0.032)	-0.044** (0.022)	2.110*** (0.042)	1.381*** (0.030)
Income	0.036*** (0.001)	0.000*** (0.000)	0.000*** (0.000)	-0.002*** (0.000)	-0.001*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
Number of kids	2.178** (1.107)	0.220*** (0.074)	3.761*** (0.192)	-10.767*** (0.244)	-1.721*** (0.145)	-0.109 (0.093)	0.627*** (0.073)	-1.828*** (0.111)	0.627*** (0.066)
Receives domestic help	7.186 (8.372)	3.906*** (1.088)	38.843*** (2.434)	-68.931*** (1.778)	-16.112*** (0.783)	-4.846*** (0.557)	2.425*** (0.407)	4.119*** (0.851)	5.438*** (0.742)
Age	73.485*** (1.242)	-3.948*** (0.193)	-23.922*** (0.293)	-9.498*** (0.287)	-1.710*** (0.143)	0.613*** (0.088)	0.324*** (0.057)	-0.838*** (0.116)	1.455*** (0.074)
Age ²	-1.096*** (0.015)	0.039*** (0.002)	0.182*** (0.003)	0.122*** (0.003)	0.022*** (0.002)	-0.001 (0.001)	-0.003*** (0.001)	0.012*** (0.001)	-0.019*** (0.001)
Constant	1,452.741*** (24.746)	79.679*** (4.296)	745.435*** (6.651)	378.959*** (6.011)	79.820*** (2.939)	8.366*** (1.778)	-2.199* (1.161)	66.628*** (2.446)	-20.119*** (1.607)
State fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓
Time fixed effects	✓	✓	✓	✓	✓	✓	✓	✓	✓
<i>N</i>	2,904,784	2,904,784	2,904,784	2,329,577	2,904,784	2,904,784	2,329,577	1,868,176	1,481,256
<i>R</i> ²	0.092	0.013	0.096	0.036	0.211	0.020	0.019	0.062	0.019

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 9: Effect of unilateral divorce on weekly time use for men (ENOE sample).

Model

Suppose we have a pool of married households who must decide whether to remain married or to divorce. Individual i is matched with individual j and the within-household interaction takes place in a single period as a sequential game: spouse i moves first, anticipating spouse j 's best response. This Stackelberg structure, inspired by [Beblo \(2001\)](#), captures the strategic nature of intra-household decisions, where asymmetries in outcomes may persist even under symmetric wages. For tractability, however, we follow [Mizushima and Futagami \(2015\)](#) and assume *no pure leisure*. Each spouse has a unit time endowment that is split between market work and home production:

$$h_k + \ell_k = 1, \quad k \in \{i, j\}.$$

Preferences combine income from market work with a quadratic home-production term and a simple interaction in domestic time. Let $w_k > 0$ be wages, z_k match quality in marriage, and $\mu > 0$ scale the marginal utility of income; let $\delta > 0$ denote the curvature of non-market time and γ the home-technology parameter (complements if $\gamma > 0$, substitutes if $\gamma < 0$). When married, spouse k 's utility is

$$U_k = z_k + \mu(w_i h_i + w_j h_j) + \ell_k(1 - \delta \ell_k) + \gamma \ell_i \ell_j, \quad k \in \{i, j\}, \quad (3)$$

which, using $h_k = 1 - \ell_k$, we also write as

$$U_k = z_k + \mu(w_i(1 - \ell_i) + w_j(1 - \ell_j)) + \ell_k(1 - \delta \ell_k) + \gamma \ell_i \ell_j.$$

If the couple divorces, spouse k consumes own income and produces alone at home. We summarize the single outside option by

$$U_k^S = b_k + \mu w_k(1 - \ell_k) + \ell_k(1 - \delta \ell_k),$$

with b_k capturing idiosyncratic utility outside marriage. Under a *unilateral* divorce regime, each spouse chooses $D_k \in \{0, 1\}$ (stay = 1, leave = 0); divorce occurs if either chooses 0. When married, we allow for an intra-household transfer s so that the allocation (ℓ_i, ℓ_j) can be chosen efficiently and the surplus is split according to Nash weights (the transfer affects distribution but not efficiency). Throughout, we maintain the standard concavity condition $\delta > |\gamma|$, ensuring a unique interior optimum for the efficient allocation.

5.3 Payoffs under unilateral divorce and mutual consent

Outside options. If the couple divorces, each spouse acts alone. The single (outside) utility for $k \in \{i, j\}$ is

$$U_k^S = b_k + \max_{\ell_k} \mu w_k(1 - \ell_k) + \ell_k(1 - \delta \ell_k), \quad (4)$$

with optimal single choice $\ell_k^S = (1 - \mu w_k)/(2\delta)$ and outside value $U_k^S = U_k^S(\ell_k^S)$. These outside options discipline participation in marriage.

Spouse i (leader) first chooses whether to propose marriage ($D_i = 1$) or not ($D_i = 0$). If $D_i = 1$, i simultaneously proposes an own time choice ℓ_i and a lump-sum transfer s (positive s is a transfer from i to j). Spouse j (follower) then decides whether to accept marriage ($D_j = 1$) or opt out ($D_j = 0$); if she accepts, she also chooses ℓ_j to best respond to ℓ_i . If $D_i = 0$ or $D_j = 0$, divorce obtains and both receive U_k^{S*} .

Given (D_i, ℓ_i, s) , j 's continuation value is

$$V_j^U(D_i, \ell_i, s) = \max_{\text{Single, Marriage}} \left\{ U_j^{S*}, D_i \left(z_j + \max_{\ell_j} [\mu(w_i(1 - \ell_i) + w_j(1 - \ell_j)) + \ell_j - \delta \ell_j^2 + \gamma \ell_j \ell_i] + s \right) + (1 - D_i) U_j^{S*} \right\}. \quad (5)$$

When $D_i = 1$, the maximization yields j 's best response

$$\ell_j^{BR}(\ell_i) = \frac{1 - \mu w_j + \gamma \ell_i}{2\delta},$$

so j accepts marriage iff

$$D_j(\ell_i, s) = \mathbf{1} \left\{ U_j(\ell_i, \ell_j^{BR}(\ell_i)) + s \geq U_j^{S*} \right\}.$$

Anticipating j 's best response and participation, i chooses (D_i, ℓ_i, s) to maximize

$$V_i^U = \max \left\{ U_i^{S*}, \max_{\ell_i, s} [D_j(\ell_i, s)(z_i + U_i(\ell_i, \ell_j^{BR}(\ell_i)) - s) + (1 - D_j(\ell_i, s))U_i^{S*}] \right\}. \quad (6)$$

Equivalently, if i proposes marriage, he solves

$$\begin{aligned} \max_{\ell_i, s} \quad & z_i + U_i(\ell_i, \ell_j^{BR}(\ell_i)) - s \\ \text{s.t.} \quad & U_j(\ell_i, \ell_j^{BR}(\ell_i)) + s \geq U_j^{S*} \quad (\text{follower's participation}). \end{aligned} \quad (7)$$

Given the efficient allocation (ℓ_i^*, ℓ_j^*) that maximizes $U_i + U_j$, the intrahousehold transfer s is determined by a Nash bargaining problem over the *gains* relative to outside options. Let

$$\Delta_i \equiv U_i(\ell_i^*, \ell_j^*) - U_i^{S*}, \quad \Delta_j \equiv U_j(\ell_i^*, \ell_j^*) - U_j^{S*},$$

and recall that a positive s is a transfer from i to j , so post-transfer utilities are $U_i^{\text{TU}} = U_i(\ell_i^*, \ell_j^*) - s$ and $U_j^{\text{TU}} = U_j(\ell_i^*, \ell_j^*) + s$. The Nash transfer s^N solves

$$s^N \in \arg \max_{s \in [-\Delta_j, \Delta_i]} \left(U_i^{\text{TU}} - U_i^{S*} \right)^\alpha \left(U_j^{\text{TU}} - U_j^{S*} \right)^{1-\alpha} = \arg \max_{s \in [-\Delta_j, \Delta_i]} (\Delta_i - s)^\alpha (\Delta_j + s)^{1-\alpha}, \quad (8)$$

where the feasibility interval $[-\Delta_j, \Delta_i]$ enforces individual rationality and is nonempty whenever the joint surplus $\Sigma \equiv \Delta_i + \Delta_j \geq 0$. The objective in (8) is strictly concave in s on its feasible set, yielding the closed-form solution

$$s^N = (1 - \alpha) \Delta_i - \alpha \Delta_j \quad (\text{with } \alpha \in (0, 1)). \quad (9)$$

By construction, s^N *does not* affect (ℓ_i^*, ℓ_j^*) —only the division of the efficient surplus—so all real-allocation comparisons with the mutual-consent benchmark should be made between ℓ_k^* and ℓ_k^B .

Under unilateral divorce with transfers, the real allocation of time is chosen efficiently: (ℓ_i^*, ℓ_j^*) solves $\max_{\ell_i, \ell_j} \{U_i + U_j\}$ and is independent of the transfer. With the quadratic specification and $\delta > |\gamma|$, the unique interior solution is

$$\ell_i^* = \frac{\delta(1 - 2\mu w_i) + \gamma(1 - 2\mu w_j)}{2(\delta^2 - \gamma^2)}, \quad \ell_j^* = \frac{\delta(1 - 2\mu w_j) + \gamma(1 - 2\mu w_i)}{2(\delta^2 - \gamma^2)}. \quad (10)$$

The transfer s only redistributes the efficient surplus.

To make transparent how transfers depend on match quality and outside options, define the

pre-transfer individual surpluses at (ℓ_i^*, ℓ_j^*) :

$$\Delta_i \equiv U_i(\ell_i^*, \ell_j^*) - U_i^{S^*}, \quad \Delta_j \equiv U_j(\ell_i^*, \ell_j^*) - U_j^{S^*}.$$

Because $U_i(\ell_i^*, \ell_j^*) = z_i + \mathcal{C}_i$ and $U_j(\ell_i^*, \ell_j^*) = z_j + \mathcal{C}_j$ for constants $\mathcal{C}_i, \mathcal{C}_j$ that depend on $(\mu, \delta, \gamma, w_i, w_j)$, while $U_k^{S^*}$ depends on b_k and w_k , we can write

$$\Delta_i = z_i + C_i(b_i), \quad \Delta_j = z_j + C_j(b_j),$$

with C_i decreasing in b_i and C_j decreasing in b_j .

(a) *Nash transfers.* If the intrahousehold transfer is set by Nash bargaining over gains from marriage, with weight $\alpha \in (0, 1)$ on spouse i , the transfer solves

$$s^N \in \arg \max_s (\Delta_i - s)^\alpha (\Delta_j + s)^{1-\alpha} \quad \Rightarrow \quad \boxed{s^N = (1 - \alpha) \Delta_i - \alpha \Delta_j}.$$

Hence, *no transfer* ($s^N = 0$) occurs precisely on the straight line

$$(1 - \alpha)\Delta_i = \alpha\Delta_j \quad \Longleftrightarrow \quad z_j = \frac{1 - \alpha}{\alpha} z_i + \underbrace{\frac{1 - \alpha}{\alpha} C_i(b_i) + C_j(b_j)}_{\text{intercept}}, \quad (11)$$

whose slope is $(1 - \alpha)/\alpha$ and whose intercept shifts with the outside options (b_i, b_j) . Above this line $s^N < 0$ (a transfer from j to i); below it $s^N > 0$ (from i to j).

(b) *Leader-optimal “minimal compensation”.* If instead, in the Stackelberg timing, the leading spouse i sets s *unilaterally* to maximize own payoff subject only to the follower’s participation, the optimal policy is to choose the smallest s that satisfies $U_j(\ell_i^*, \ell_j^*) + s \geq U_j^{S^*}$:

$$s^{\min} = \max\{U_j^{S^*} - U_j(\ell_i^*, \ell_j^*), \underline{s}\} = \max\{-\Delta_j, \underline{s}\}.$$

If negative transfers are allowed (i.e., $\underline{s} = -\infty$), then $s^{\min} = -\Delta_j$ and i extracts any positive pre-transfer surplus from j . If negative transfers are *not* allowed (institutional constraint $\underline{s} = 0$), we obtain a transparent “no-transfer” region:

$$s^{\min} = 0 \quad \Longleftrightarrow \quad \Delta_j \geq 0 \quad \Longleftrightarrow \quad z_j \geq -C_j(b_j),$$

i.e., whenever the follower is already weakly willing to marry at (ℓ_i^*, ℓ_j^*) , no compensation is needed.

Marriage feasibility and geometry. In both (a) and (b), marriage is feasible iff the *joint* surplus is nonnegative:

$$\Sigma \equiv \Delta_i + \Delta_j = (z_i + z_j) + (C_i(b_i) + C_j(b_j)) \geq 0,$$

whose boundary is the line $z_j = -z_i - (C_i(b_i) + C_j(b_j))$ (slope -1). Taken together with (11), these straight lines give the partition of the (z_i, z_j) plane used in the figures: a marriage region ($\Sigma \geq 0$) split by the $s = 0$ locus into areas with transfers to j ($s > 0$) and to i ($s < 0$). Changes in b_i or b_j shift both lines in intuitive ways: higher outside options shrink marriage feasibility and tilt the $s = 0$ boundary via $C_i(b_i)$ and $C_j(b_j)$.

Under mutual consent without side payments, either spouse can veto marriage; if either vetoes, divorce obtains and the outside option U_k^{S*} is realized. Conditional on marriage, efforts are chosen in *sequential* (Stackelberg) fashion: spouse i (leader) chooses l_i first, anticipating spouse j 's (follower) optimal response l_j . Let

$$c \equiv w_i(1 - l_i) + w_j(1 - l_j).$$

Agent i :

$$V_i^{MC} = \max_{S,M} \left\{ (1 - D_j) U_i^{S*} + D_j \left(z_i + \max_{l_i} [\mu c + l_i - \delta l_i^2 + \gamma l_i l_j] \right), \quad z_i + \max_{l_i} [\mu c + l_i - \delta l_i^2 + \gamma l_i l_j] \right\}.$$

Agent j :

$$V_j^{MC} = \max_{S,M} \left\{ (1 - D_i) U_j^{S*} + D_i \left(z_j + \max_{l_j} [\mu c + l_j - \delta l_j^2 + \gamma l_i l_j] \right), \quad z_j + \max_{l_j} [\mu c + l_j - \delta l_j^2 + \gamma l_i l_j] \right\}.$$

Here $D_i, D_j \in \{0, 1\}$ denote consent (1) or veto (0); in equilibrium, $D_i = \mathbf{1}\{U_i^{MC} \geq U_i^{S*}\}$, $D_j = \mathbf{1}\{U_j^{MC} \geq U_j^{S*}\}$.

Follower j (best response). Given l_i , j solves

$$\max_{l_j} \mu c + l_j - \delta l_j^2 + \gamma l_i l_j,$$

so

$$l_j^{BR}(l_i) = \frac{1 - \mu w_j + \gamma l_i}{2\delta}. \quad (12)$$

Leader i (anticipating j). Spouse i chooses l_i to maximize own utility, taking into account (12):

$$\max_{l_i} z_i + \mu c(l_i, l_j^{BR}(l_i)) + l_i - \delta l_i^2 + \gamma l_i l_j^{BR}(l_i).$$

The first-order condition delivers

$$l_i^{MC-S} = \frac{\delta(1 - \mu w_i) + \frac{\gamma}{2}(1 - 2\mu w_j)}{2\delta^2 - \gamma^2}, \quad (13)$$

valid under $\delta > |\gamma|$ (hence $2\delta^2 - \gamma^2 > 0$). The follower then plays (12) at this choice:

$$l_j^{MC-F} = l_j^{BR}(l_i^{MC-S}) = \frac{-\delta^2 \mu w_j + \delta^2 - \frac{\delta \gamma}{2} \mu w_i + \frac{\delta \gamma}{2} - \frac{\gamma^2}{4}}{\delta(2\delta^2 - \gamma^2)}. \quad (14)$$

Mutual-consent utilities and consent conditions. Evaluated at (l_i^{MC-S}, l_j^{MC-F}) ,

$$U_i^{MC} = z_i + \mu c(l_i^{MC-S}, l_j^{MC-F}) + l_i^{MC-S} - \delta(l_i^{MC-S})^2 + \gamma l_i^{MC-S} l_j^{MC-F},$$

$$U_j^{MC} = z_j + \mu c(l_i^{MC-S}, l_j^{MC-F}) + l_j^{MC-F} - \delta(l_j^{MC-F})^2 + \gamma l_i^{MC-S} l_j^{MC-F}.$$

Marriage under mutual consent obtains iff both participation constraints hold:

$$U_i^{MC} \geq U_i^{S*}, \quad U_j^{MC} \geq U_j^{S*}.$$

5.4 Comparing allocations: unilateral with transfers vs. mutual consent

We compare the efficient time allocation under unilateral divorce with transfers (TU) to the mutual-consent, sequential (Stackelberg) benchmark without transfers.

Closed forms (recall). Under TU (utility-transferable; efficient real allocation),

$$l_i^{TU} = \frac{\delta(1 - 2\mu w_i) + \gamma(1 - 2\mu w_j)}{2(\delta^2 - \gamma^2)}, \quad l_j^{TU} = \frac{\delta(1 - 2\mu w_j) + \gamma(1 - 2\mu w_i)}{2(\delta^2 - \gamma^2)}. \quad (15)$$

Under mutual consent with sequential timing (leader i , follower j , no transfers),

$$l_i^{MC-S} = \frac{\delta(1 - \mu w_i) + \frac{\gamma}{2}(1 - 2\mu w_j)}{2\delta^2 - \gamma^2}, \quad (16)$$

$$l_j^{MC-F} = \frac{-\delta^2 \mu w_j + \delta^2 - \frac{\delta\gamma}{2} \mu w_i + \frac{\delta\gamma}{2} - \frac{\gamma^2}{4}}{\delta(2\delta^2 - \gamma^2)}. \quad (17)$$

All expressions are valid under the standard concavity condition $\delta > |\gamma|$.

Allocation gaps. Define the TU–MC differences

$$\Delta_i \equiv l_i^{TU} - l_i^{MC-S}, \quad \Delta_j \equiv l_j^{TU} - l_j^{MC-F}.$$

With $\delta > |\gamma|$, denominators are positive, so the signs of Δ_i, Δ_j are governed by linear cutoffs in μ .

(i) *Leader's gap.* One obtains

$$\Delta_i < 0 \iff \mu > \bar{\mu}_i(w_i, w_j) \equiv \frac{\gamma(\delta + \gamma)}{2\delta(\delta w_i + \gamma w_j)}. \quad (18)$$

(ii) *Follower's gap.* Likewise,

$$\Delta_j < 0 \iff \mu > \bar{\mu}_j(w_i, w_j) \equiv \frac{\gamma(\delta + \gamma)^2(2\delta - \gamma)}{2\delta(2\delta^3 w_j + \gamma(3\delta^2 - \gamma^2)w_i)}. \quad (19)$$

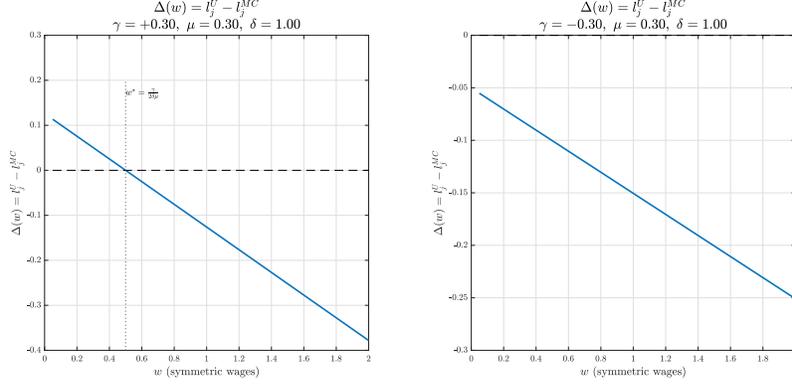


Figure 12: Mutual consent (sequential/Stackelberg, no transfers). Spouse i (leader) chooses l_i anticipating spouse j 's best response $l_j^{BR}(l_i)$ in (12); the outcome (l_i^{MC-S}, l_j^{MC-F}) in (13)–(14) serves as the MC benchmark for the comparison with the TU-efficient allocation.

(Under $\delta > |\gamma|$ and positive wages, the denominators in (18)–(19) are typically positive; if a denominator were negative, the inequality reverses. The symmetric case below is especially transparent.)

Symmetric wages $w_i = w_j = w$: a single, sharp cutoff. When wages are symmetric, both gaps share the same threshold:

$$\Delta_i = \frac{\delta(\gamma - 2\delta\mu w)}{2(\delta - \gamma)(2\delta^2 - \gamma^2)}, \quad \Delta_j = -\frac{(\delta + \gamma)(2\delta - \gamma)(2\delta\mu w - \gamma)}{4\delta(\delta - \gamma)(2\delta^2 - \gamma^2)}.$$

Hence,

$$\Delta_i < 0 \text{ and } \Delta_j < 0 \iff \mu > \frac{\gamma}{2\delta w}. \quad (20)$$

Interpretation. If home time is **substitutable** ($\gamma < 0$), the cutoff in (20) is negative, so for any $\mu > 0$ we get $\Delta_i < 0$ and $\Delta_j < 0$: TU assigns *less* home time than MC for both spouses. With **complements** ($\gamma > 0$), larger μ or higher wages push the allocation toward market work in the TU (efficient) regime, so beyond the threshold both l_i and l_j are lower than under MC–Stackelberg.

Across both agents, TU's efficient internalization of market returns (through μ and wages) tends to reduce home time relative to MC–Stackelberg whenever those returns are sufficiently valuable. This aligns with the empirical pattern you emphasize ($l_j^{\text{TU}} < l_j^{\text{MC}}$), and the symmetric case provides a neat, closed-form diagnostic $\mu > \gamma/(2\delta w)$.

6 Conclusions

This paper studies the effect of unilateral divorce on time allocation among married individuals in Mexico. To the best of our knowledge, this is the first study to identify changes in time distribution resulting from the bargaining power gained by women in a Latin American country. Our paper also has the advantage of using two detailed datasets -ENUT and ENOE-, which provide robust and consistent findings across surveys.

The results show that the unilateral divorce law changed time allocation within households. Married women in states where the legislation was implemented decreased their time dedicated to childcare or taking care of someone and increased their working time compared to those in which mutual consent was the main way to obtain a divorce. In contrast, men seem to increase the time dedicated to household production or activities such as building the home, but also decrease the number of minutes spent on childcare. Even though both men and women show declining patterns in childcare, the effect is larger for women.

Our results align with previous literature on time use and unilateral divorce ([Genadek, 2018](#); [Rof, 2017](#)), where there are intra-household changes in time allocation after the non-fault divorce was implemented. They also align with [Hoehn-Velasco and Penglase \(2021a\)](#), who finds that even though married women did not increase participation in the labor force, they spent more time working. However, they contradict the findings of [García-Ramos \(2021\)](#), which identify an immediate null effect and intimate partner violence in the long term as a coercion method to keep women in marriage, indicating a backlash result rather than a gain in bargaining power. Since mutual consent and domestic violence were both grounds to file for divorce, we hypothesize that our results may differ from [García-Ramos \(2021\)](#) because women who were victims of violence may have obtained a divorce by proving this fact, which could explain the null short-term effect of the legislation the author finds. However, this remains a gray area that requires more research to fully understand household dynamics in developing countries. Our study has a limitation. The main data source, ENUT, provides information every five years, which does not allow for identifying immediate changes after the legislation took place. To address this, we use a second survey, ENOE, which also includes time allocation data, though its primary aim is to gather labor information. Still, both surveys show generally consistent results, which reduces our concerns.

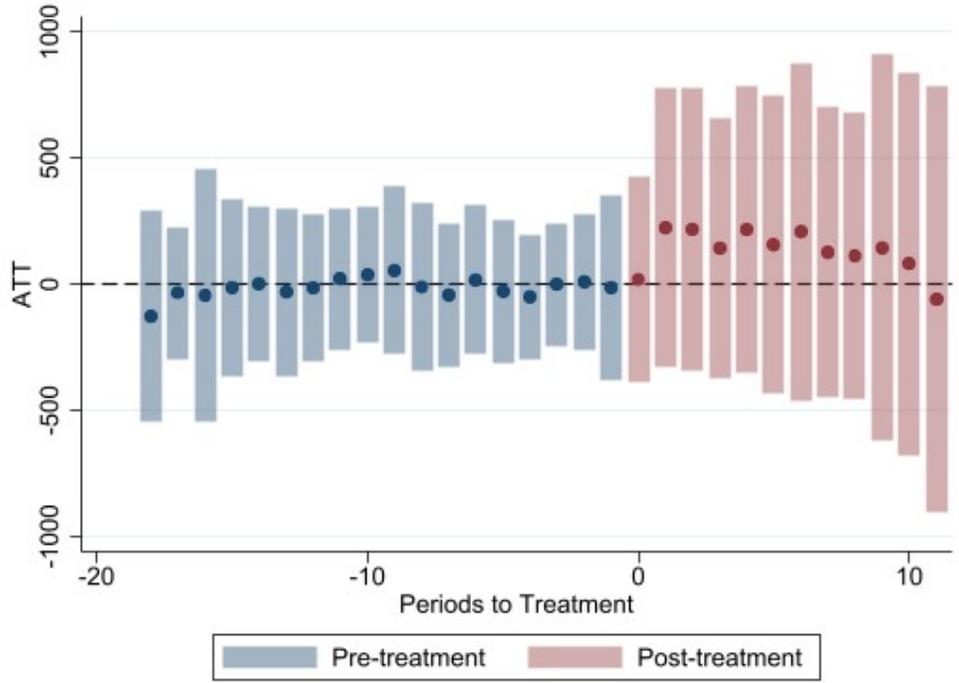
According to our findings, both women and men decrease time allocation in childcare, which raises questions related to children’s well-being and health outcomes, which other papers could try to understand in further analyses.

References

- Aguiar, M. and Hurst, E. (2007). Measuring trends in leisure: The allocation of time over five decades. *The quarterly journal of economics*, 122(3):969–1006.
- Aguirre, E. (2019). Do changes in divorce legislation have an impact on divorce rates? the case of unilateral divorce in mexico. *Latin American Economic Review*, 28(1):9.
- Aguirre, R. and Ferrari, F. (2014). Las encuestas sobre uso del tiempo y trabajo no remunerado en américa latina y el caribe: caminos recorridos y desafíos hacia el futuro. Technical report, Naciones Unidas Comisión Económica para América Latina y el Caribe (CEPAL).
- Amarante, V., Rossel, C., and Scalese, F. (2024). Housework and earnings: intrahousehold evidence from latin america. *Journal of Family Studies*, 30(3):440–460.
- Avolio, B. and Moreno, M. (2025). Analysis of sex, age and socioeconomic differences in time use: evidence from a latin american country. *Community, Work & Family*, 28(1):1–27.
- Beblo, M. (2001). *Bargaining over time allocation: Economic modeling and econometric investigation of time use within families*. Springer Science & Business Media.
- Berniell, I., Fernández, R., and Krutikova, S. (2024). Gender inequality in latin america and the caribbean. Technical report, National Bureau of Economic Research.
- Bertrand, M., Duflo, E., and Mullainathan, S. (2004). How much should we trust differences-in-differences estimates? *The Quarterly journal of economics*, 119(1):249–275.
- Brassiolo, P. (2016). Domestic violence and divorce law: When divorce threats become credible. *Journal of Labor Economics*, 34(2):443–477.
- Callaway, B. and Sant’Anna, P. H. (2021). Difference-in-differences with multiple time periods. *Journal of econometrics*, 225(2):200–230.
- Camou, M. M., Maubrigades, S., and Thorp, R. (2017). *Gender inequalities and development in Latin America during the twentieth century*. Routledge.
- Chiappori, P.-A. and Molina, J. A. (2020). The intra-spousal balance of power within the family: cross-cultural evidence. In *Cross-cultural family research and practice*, pages 185–209. Elsevier.
- Corradini, V. and Buccione, G. (2023). Unilateral divorce rights, domestic violence and women’s agency: Evidence from the egyptian khul reform. *Journal of Development Economics*, 160:102947.
- Esquivel, V., Budlender, D., Folbre, N., and Hirway, I. (2008). Explorations: Time-use surveys in the south. *Feminist Economics*, 14(3):107–152.

- Esteve, A., Castro Torres, A. F., and Becca, F. (2025). Family change in latin america: schooling and labor market implications for children and women. *Oxford Open Economics*, 4(Supplement_1):i292–i306.
- Fernández, R. and Wong, J. C. (2017). Free to leave? a welfare analysis of divorce regimes. *American Economic Journal: Macroeconomics*, 9(3):72–115.
- García-Ramos, A. (2021). Divorce laws and intimate partner violence: Evidence from mexico. *Journal of Development Economics*, 150:102623.
- Genadek, K. R. (2018). Unilateral divorce and time allocation in the united states. *Feminist Economics*, 24(1):63–87.
- Gruber, J. (2004). Is making divorce easier bad for children? the long-run implications of unilateral divorce. *Journal of Labor Economics*, 22(4):799–833.
- Guarnieri, E. and Rainer, H. (2018). Female empowerment and male backlash.
- Hirway, I. and Jose, S. (2011). Understanding women’s work using time-use statistics: The case of india. *Feminist Economics*, 17(4):67–92.
- Hoehn-Velasco, L. and Penglase, J. (2021a). Does unilateral divorce impact women’s labor supply? evidence from mexico. *Journal of Economic Behavior & Organization*, 187:315–347.
- Hoehn-Velasco, L. and Penglase, J. (2021b). The impact of no-fault unilateral divorce laws on divorce rates in mexico. *Economic Development and Cultural Change*, 70(1):203–236.
- Mizushima, A. and Futagami, K. (2015). Non-cooperative versus cooperative family. *Journal of Economics*, 114(1):43–62.
- Molina, J. A., Velilla, J., and Ibarra, H. (2023). Intrahousehold bargaining power in spain: An empirical test of the collective model. *Journal of Family and Economic Issues*, 44(1):84–97.
- Nichols, A. and Schaffer, M. (2007). Clustered errors in stata. In *United Kingdom Stata Users’ Group Meeting*, pages 133–138.
- Rodríguez, A. V. (2017). Economic growth and gender inequality: an analysis of panel data for five latin american countries. *CEPAL Review*, 2017(122):79–106.
- Rof, J. (2017). Cleaning in the shadow of the law? bargaining, marital investment, and the impact of divorce law on husbands’ intrahousehold work. *The Journal of Law Economics*, 60(1):115–134.
- Stevenson, B. and Wolfers, J. (2006). Bargaining in the shadow of the law: Divorce laws and family distress. *The Quarterly Journal of Economics*, 121(1):267–288.

Vyas, S. and Kumaranayake, L. (2006). Constructing socio-economic status indices: how to use principal components analysis. *Health policy and planning*, 21(6):459–468.



Appendix Figure A1: Divorce Rate, DiD with Staggered Treatment. INEGI 2000–2019.

A First Stage, Difference in Difference of Divorce Rates by States, INEGI