Introduction

Care work encompasses activities aimed at supporting dependent individuals in their daily lives and enhancing their well-being (Batthyány, 2015). In most developing countries, such work is often unpaid and disproportionately falls on women (Vera, De la Barra, & Montes, 2018). The responsibility for home-based care limits women's opportunities to engage in other areas of social life, often placing them in a state of economic dependency (Rendón, 2003). The presence of young children, in particular, impacts women's labor market participation, as it increases the likelihood that they will seek part-time or informal sector work, or even abandon the pursuit of paid employment altogether (Parker & Knaul, 1997), thereby widening gender inequalities (Kleven, Landais, & Sogaard, 2018). Research highlights the existence of a "motherhood wage penalty," with effects lasting 10 to 20 years after childbirth. Mothers work fewer hours, have lower employment rates than fathers and childless individuals, and earn lower wages (e.g., Anderson et al., 2002; Angelov et al., 2016; Blau & Kahn, 2000; Chung et al., 2017; Kleven et al., 2018, 2019; Lundberg & Rose, 2000; Lundborg et al., 2017; Molina & Montuenga, 2009; Waldfogel, 1998). These disparities have enduring consequences, as women face significantly prolonged periods of unemployment compared to men when they leave the labor market to provide home care (Campos-Vazquez, 2021).

Governments help reduce these disparities by providing childcare services, which numerous studies show positively impact family welfare (e.g., Morrissey, 2017; Ferragina, 2018; for Latin America, see Díaz & Chamussy, 2013). Access to affordable, high-quality childcare enables women to enter or remain in the labor force, thereby raising household income and improving overall family well-being (López-Acevedo et al., 2021). In the absence of accessible public or private childcare, households must shoulder the burden of reallocating time, reducing work hours, and sacrificing income. When external shocks limit childcare availability, families are forced to adapt to new care arrangements. For example, the COVID-19 pandemic led to a widespread suspension of childcare services, requiring households to compensate through increased home-based care. In 2020, the difference between men and women in the hours dedicated to domestic and care work and almost doubled in Latin America (ECLAC 2020), and the number of hours parents worked per week decreased in the US (Garcia and Cowan, 2024).

In this paper, we investigate an external shock stemming from the abrupt termination of a childcare program in Mexico: The Childcare Program to Support Working Mothers (*Programa de Estancias Infantiles para Hijos de Madres Trabajadoras*, PEI). Launched in 2007, PEI quickly became the country's largest childcare provider, aimed specifically at women below the poverty line who lacked access to childcare due to the informal nature of their employment, which precluded social security benefits. The program's unexpected cancellation by the Mexican federal government in February 2019 forced households to make sudden adjustments in child caregiving arrangements and reallocate parental time between caregiving and work responsibilities. This study examines the consequences of losing access to childcare services on parents' employment, income, and time allocated to caregiving. We propose that reduced childcare availability negatively impacts hours worked, with the extent of this effect mediated by household composition and employment type.

Although extensive literature examines the effects of childcare availability on labor participation, the relationship between loss of childcare services and changes in working hours, particularly in developing contexts, remains underexplored. This study leverages the abrupt termination of a childcare program and available household-level time-use data to analyze families' decision-making immediately following the program's dismantling. Recent research has investigated the impacts of other policy terminations on family well-being; for instance, the loss of health insurance has been shown to harm families' financial stability (Argys et al., 2020) and reduce preventive healthcare use (Tello-Trillo, 2021). Notably, Argys et al. (2020) find that the negative impact of losing access to such services often exceeds the positive impact of gaining access.

Our empirical analysis is based on a panel dataset of Mexican municipalities from 2017 to 2019. The outcome data are drawn from the quarterly *Encuesta Nacional de Ocupación y Empleo* (ENOE, National Survey of Employment and Occupation), and we supplement these with administrative data on municipal-level PEI penetration just prior to the program's termination. Treatment status is assigned according to each municipality's pre-termination exposure to PEI services. Since PEI was a federally administered policy that ended nationwide at the same time, creating a strict control group is not possible. However, we hypothesize that municipalities with higher pre-termination PEI take-up rates would experience greater impacts from the program's termination than those with lower take-up levels. Using the variation generated by this shock

through a differential dose-response approach, we estimate a difference-in-differences model that compares outcomes in municipalities with high PEI penetration against those with lower exposure, across the period before and after the program's termination.

Our findings indicate that the termination of PEI led to a notable reduction in weekly hours worked by parents. Specifically, households in municipalities with higher exposure to PEI before its termination reduced their working hours by an average of áhours per week (approximately 3.8% to 14.5% of the pre-termination mean). Additionally, we observe a decrease in weekly care hours, ranging from 2.05 to 3.64 hours (around 7.5% to 12% of the pre-termination mean).

In gender studies, the concept of intersectionality emphasizes the importance of incorporating multiple dimensions of individuals' lives and social practices into analyses of inequality and examining how these dimensions interact (Hengelaar et al., 2021). With the detailed granularity of our data, we are able to investigate not only the average effects of the childcare program's termination but also how specific household compositions and employment types shape these impacts. We find that the effects are largely concentrated among two-parent households, where a significant reduction in time caring for children at home is evident, contrasting with a small, statistically insignificant increase among single-parent households. Furthermore, the reduction in care time appears primarily attributable to fathers, while mothers increase their time contributions, though this increase is insufficient to fully offset fathers' reductions. In terms of employment type, our analysis anticipated stronger impacts among parents in precarious jobs, consistent with PEI's target population. Our findings support this expectation: parents in the informal sector experienced a greater reduction in work hours, almost doubling the overall effect to 5 hours per week, with street vendors seeing nearly a 6-hour weekly reduction. Sole-provider mothers showed the largest decline, at 9.35 hours per week. Event study analyses additionally reveal that paid housekeepers, likely non-sole-provider mothers, significantly increased their childcare time following PEI's termination.

Our paper contributes to multiple strands of literature. First, we add to the research on childcare availability and parental employment. While extensive quasi-experimental studies examine the effects of childcare programs and subsidies on maternal employment (e.g., Blau and Currie, 2006; Baker et al., 2019; Carta and Rizzica, 2018; Collischon et al., 2020), we extend this literature by focusing on the lesser-studied effects of losing access to these services. Our findings indicate that, among vulnerable populations in precarious jobs, the reduction in hours worked

following the termination of childcare services was even greater than the gains observed with access (9.35 versus 6 hours). We further contribute by providing new causal insights into how childcare availability shapes family decisions regarding time allocation between caregiving and work. Our analysis reveals how intersecting factors—such as household composition and employment precarity—mediate the effects of childcare loss on family time distribution. Finally, we expand this predominantly developed-country discourse by examining these dynamics in a developing context marked by poverty, informality, and employment insecurity.

Related Research

Childcare and women's labor participation

A key purpose of social welfare programs is to improve the well-being of families through different mechanisms, among which income is a crucial dimension. Childcare subsidies are an important part of public efforts to help low-income families support themselves by work rather than welfare. Childcare needs may be met by direct provision (government childcare centers), subsidies (either paid to families or childcare suppliers), refunds to parents, tax exemptions, or children's cash allowances (Cascio et al. 2015). Childcare services facilitate the incorporation of parents, particularly women, into the workforce, by providing them with available time to find, get, and maintain a job.

Yet, the effects of childcare services on women's labor participation are mediated by contextual factors, such as characteristics of the labor market (whether jobs are in the formal or informal sector, unemployment levels), family structure, fertility rates, marital status, and the availability of other informal suppliers of care, including grandparents (Melgoza, 2021; Gathman and Sass, 2012; Arpino et al. 2010; Connelly, 1992). Of course, the potential effect also depends on the characteristics of childcare provided, its availability, and accessibility (whether free or subsidized), targeting (for instance, it is recognized that for poor mothers, childcare may prove too expensive), location, and opening hours, whether it is part-time or full-time care (Vuri, 2016; Brewer et al., 2022).

The effects of these policies also depend on the characteristics of the beneficiaries. As Ferragina (2018: 28) found in a systematic review of available evidence, "Childcare coverage appears to be especially vital for mothers with low education and income. [For instance,] in

Australia and the United States, childcare costs are a more significant barrier to work for low-income, low-skilled, single, black, and young mothers". The employment history of mothers also matters. In some cases, subsidized childcare services have had limited effects on employment, because working women switch from informal care (paid or unpaid) to formal, subsidized care. Women with high salaries are more likely to invest in childcare to "buy" free time form care duties to perform a full-time job; but when salaries are low, the proportion of earnings that would need to be destined for buying childcare will be too high. In Japan, research shows that childcare's outcomes vary depending on a mother's connection to the labor market. Mothers more strongly tied to the labor market often opt for informal childcare arrangements, which may result in less significant outcomes. On the other hand, mothers with weaker ties to the labor market may find it challenging to work without access to subsidized childcare. Participating in a childcare program can be much more significant for these mothers (Yamaguchi et al. 2018). Whether women are married (Connelly, 1992) or single mothers (Tekin 2007) also matters, as does their education level (Lefebvre et al. 2009).

Most of the available evidence comes from developed countries, where certain conditions (labor market, family structure, etc.) shape the effects of childcare. For instance, countries that already have high levels of maternal employment show small effects from childcare (Szabó-Morvai and Lovász, 2017). In contrast, "little evidence is available from settings where there is a much higher potential impact due to low maternal participation rates, such as the Southern and Central-Eastern European (CEE) countries" (Lovász and Szabó-Morvai, 2019). It has been found that the availability (number of slots) and accessibility (their cost) of childcare benefit women in contexts where there is an unequal distribution of domestic work, and where there is a wage gender gap (Brewer et al. 2022).

In Latin America, evidence indicates that access to childcare has a consistently strong positive effect on maternal labor participation (Díaz and Chamussy, 2013, p 24). However, as in most developing countries, these policies are not universally accessible, and when they are available, they often fall short of closing the gender gap in labor participation. Campos-Vázquez et al. (2021) find the persistence of a child penalty even in women in the formal sector in Mexico, who benefit from maternity leaves and childcare services. For those employed in the informal sector, access to essential services such as healthcare, pensions, and childcare is often nonexistent.

Building on these findings and addressing gaps in the literature, this paper examines the implications of dismantling one of the region's most ambitious childcare programs targeted at women employed outside the formal sector.

Institutional background

This section outlines the institutional context shaping women's labor and childcare options in Mexico, detailing the 2007 introduction and 2019 termination of a major childcare program. We describe how this unique setting enables identification of the causal impacts of losing access to childcare, providing insight into the effects on families' labor and caregiving decisions.

Labor and childcare utilization in Mexico

In 2022, Mexico's labor participation rate was approximately 59.9%, with 59.3 million people employed or actively seeking work; 39.9% of these participants were women (INEGI, 2022). As in many developing countries, informal employment is widespread in Mexico, including paid domestic service without benefits and street vendors without social security (INEGI, 2022). That year, 32 million people—54% of the workforce—were in the informal sector, with women making up 12.9 million (around 55% of female employment).

Mexico has a substantial gender gap in labor participation: over 70% of men participate in the labor market, compared to only 46.8% of women aged 15-64 (OECD, 2017). Nearly 60% of working women are in informal jobs, linked to the unequal burden of unpaid care. Women perform 77% of unpaid household and childcare tasks, far exceeding the average in most OECD countries (OECD, 2017). Childcare options are limited; only 9.6% of children under 6 attend a public or private childcare facility (7.3% and 2.3%, respectively), while 24.6% are brought to their mother's workplace and 49.6% rely on family networks, primarily grandmothers (INMUJERES, 2019). The cost of private childcare, ranging from 20% to 417% of the monthly minimum wage (based on 2017 prices), makes it unaffordable for many families, with only 3% of households earning up to one minimum wage able to pay for it, compared to 30.1% of households earning up to six minimum wages (Cejudo et al., 2017).

Until 2019, Mexico's public childcare system operated through two primary schemes. First, childcare services were available to parents employed in the formal sector through social security-based programs. These services, provided by the Mexican Institute of Social Security (IMSS) for

private sector workers and equivalent institutions for public sector employees at federal, state, and municipal levels, offered both direct and outsourced care options. Funding came from contributions by workers, employers, and the federal government. Second, non-contributory services were accessible to those without social security, funded through general tax revenues or other public resources (CONEVAL, 2018). The Childcare Program to Support Working Mothers (PEI) was a key component of this second scheme, targeting workers in the informal sector who lacked access to social security-based childcare. The following section details the structure and impact of the PEI program.

Creating and dismantling public childcare services for poor women in Mexico

One of the most significant shifts in social policy across Latin America in recent decades has been the creation and expansion of non-contributory programs aimed at reaching new populations (Garay, 2016; Satyro et al., 2021). Child-support interventions have proliferated throughout the region, including cash transfers for families with children, such as Argentina's Universal Child Allowance; multisectoral social protection schemes, like Chile's "Chile Grows with You" program; and integrated care systems, exemplified by Uruguay's National Care System (Mauricio and Vázquez, 2014; Molina et al., 2018; Cejudo and Michel, 2022). However, Mexico has made only modest progress in this area, with more than half of its population lacking access to contributory social security (CONEVAL, 2021). The most notable innovation of the 21st century was the establishment of the Programa Estancias Infantiles para Hijos de Madres Trabajadoras (Daycare Program for Children of Working Mothers, PEI) in 2007, which aimed to promote female labor force participation by providing childcare services for women with children who lacked social security. The program subsidized community- and home-based daycare rented locales or home additions adapted to meet the program requirements (Díaz and Chamussy, 2013). It provided a one-time grant of 70,000 MXP for setting up or improving new childcare centers and provided a monthly subsidy for each enrolled child, covering ages one to four (or five in cases of disability).

To enroll in the program, mothers submitted an application form to the relevant offices, where authorized personnel assessed eligibility through interviews and socioeconomic questionnaires. They were required to provide proof of legal custody for the children and, if applicable, indicate any disabilities. Beneficiaries had to sign an affidavit attesting to the accuracy

of their information, which was subject to verification. However, PEI's operating body lacked mechanisms to ensure the reliability of reported data (ASF, 2017). Once applicants met eligibility criteria, they could access services at any affiliated childcare center with available spots, which received direct financial support from PEI based on attendance. Families could register up to three children simultaneously, and centers needed to demonstrate that each child attended at least 15 times and remained for a minimum of five hours each visit to qualify for monthly financial support.

From 2008 to 2017, PEI became the largest provider of childcare services in Mexico, surpassing even the Mexican Institute of Social Security in terms of the number of children served and daycare centers. The program experienced its most significant expansion from 2007 to 2012, with an average budget increase of 22.1 percent in real terms. In contrast, from 2013 to 2018, the budget grew by only 0.02 percent. By 2017, the program served over 300,000 children across more than 9,000 centers. However, in 2019, PEI suffered a 51 percent budget cut, leaving it with only 1.556 million pesos (CONEVAL, 2018).

PEI primarily targeted low-income women without formal employment, thereby reaching populations that traditionally lacked access to childcare services and were often engaged in low-skilled, precarious jobs. By 2010, one-third of its beneficiaries had completed only secondary education, while another third had completed high school. Additionally, 15.1 percent were domestic workers, and 13.9 percent were street or door-to-door vendors—groups historically denied social protection (Blofield, 2012). Notably, 40.3 percent of beneficiaries were heads of households, and 36.2 percent were single mothers, earning an average monthly salary of $2,865 MXP, just three times the subsidy provided by PEI (CONEVAL, 2019). Evaluations indicate that PEI effectively promoted labor market participation among low-income women with young children, particularly those who were not employed before entering the program (CONEVAL, 2019). There were increases in both the probability of joining the labor market and the number of hours worked (Ángeles et al., 2011), as well as a higher likelihood of securing stable employment (Calderón, 2014). For children, the availability of childcare centers reduced reliance on family or community support networks, enhancing their socialization and improving both their nutrition and development.

The latest impact evaluation (INSP and CEE, 2011) revealed positive effects of PEI on mothers' employment, with an 18 percent increase in job acquisition probability and a rise of over six hours in weekly paid work. Furthermore, mothers experienced a 16 percent increase in short-

term job tenure and a 6 percent improvement in their empowerment scale score, reflecting gains in self-esteem and personal recognition. Notably, less than 0.05 percent of beneficiaries had previously accessed childcare services, indicating that PEI represented a new resource for low-income families.

Despite this evidence and an explicit commitment from the President on his inauguration day, the Mexican federal government announced the dismantling of PEI in February 2019. This decision was framed as part of a broader austerity initiative to combat corruption and eliminate alleged "irregularities" in PEI's operations. Both the subsidy for establishing new childcare centers and the monthly financial support per enrolled child were discontinued. In response to protests from former beneficiaries and feminist organizations, as well as a formal request from the National Human Rights Commission, the government introduced the Programa de Apoyo para el Bienestar de las Niñas y Niños, Hijos de Madres Trabajadoras (Support Program for the Welfare of Children of Working Mothers, PABNNMT) in April, which provided cash transfers to working mothers to offset childcare costs.

The new program introduced as a replacement for PEI does not serve as a perfect substitute. First, while the cash transfer allows mothers to "freely choose" how to utilize the funds—whether for childcare services or other expenses—the amount of the subsidy has decreased. Under PEI, families received 950 MXP per child (1,800 MXP for children with disabilities), whereas the new program offers only 800 MXP per child. Additionally, the reach of the new program is significantly limited compared to PEI, which covered 1,278 municipalities. In contrast, the new program prioritizes only 672 indigenous municipalities (Estrada, 2020). It has also resulted in reduced coverage, reaching fewer municipalities across 23 out of Mexico's 32 states. In areas where the new program has been implemented, the number of beneficiaries has dramatically declined. Specifically, the total number of women enrolled decreased from 321,726 in PEI in 2018 to 169,742 in the new program by late 2019 (Torres, 2020).

The implementation of PABNNMT required a new census of beneficiaries, which resulted in some individuals who previously received childcare support being excluded due to lack of registration (CNDH, 2019). Moreover, the shift from subsidizing childcare services to providing cash transfers has led to the closure of childcare centers, creating uncertainty about whether beneficiaries are using the funds for childcare services. As Estrada (2020) highlights, replacing

childcare services with a cash transfer risks keeping children at home and may reduce women's participation in the labor force.

Empirical Strategy

Data and Sample

The empirical analysis is based on a quarterly panel data set composed of Mexican municipalities over the 2017-2019 period. The data used in this paper are derived from different sources. We used household and census data and administrative data. Household data comes from the National Survey of Occupation and Employment (ENOE, acronym in Spanish). This is a quarterly labor force survey produced by the Mexican Statistical Office (INEGI, acronym in Spanish)[1]. This survey samples approximately 170,000 households per quarter in both urban and rural municipalities, and the information and structure are like that of the US Current Population Survey. INEGI also produces the Mexican Census Population, which we use to get information about the targeted population before and after the PEI's termination.

Our analysis concentrates on survey waves conducted before the onset of the COVID-19 pandemic in March 2020 in Mexico for two reasons. First, the pandemic led to the closure of Mexican childcare for more than a year, which affected labor participation among parents and rendered subsequent survey responses less reliable. Second, the ENOE was suspended in Spring 2020 and subsequently transitioned from in-person to telephone interviews, raising concerns about representativeness that remain to be fully addressed.

The program specifically targeted mothers without social security access who had children aged 1 to 4 years. Eligibility criteria mandated that participants reside below a designated household income threshold. However, due to limitations in the government's capacity to verify income and social security status, mothers from various income levels were able to apply (Calderón, 2014, p. 6). Accordingly, our analysis focuses on parents aged 15 to 55 with children under 5 years. Households with children under one year were also included, as they might have responded to the program's termination even before fully utilizing its benefits (Calderón, 2014, p.

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[1] First quarter: January-March; second quarter: April-June; third quarter: July-September; fourth quarter: October-December.

6). Anticipating that the program's end could influence labor decisions across the household, we included both heads of households and their spouses with children aged 1 to 4 in our sample. Notably, 94% of household heads in the sample are men, indicating that most spouses are women. To better capture the contributions of both mothers and fathers to our outcomes, we aggregate data from each household member to create a unified household-level measure for each outcome. This approach yields a sample of 181,268 households. Table 1 provides descriptive statistics for the entire sample, alongside comparisons for treated and control municipalities.

Outcomes measure

Our primary dependent variables of interest are household labor participation, childcare responsibilities, and household income, measured using data from the ENOE household survey. These outcomes are assessed as follows:

Weekly Hours Worked. This variable captures the total weekly hours worked by household heads and their spouses. Among households in the control group (Q1), the average weekly hours worked is 49.97 (SD = 29.17), whereas in the treatment group (Q4), this figure increases to 58.30 (SD = 29.34). Thus, individuals in the treatment group work, on average, approximately 8 hours more per week than those in the control group.

Weekly Hours Spent on Childcare. To evaluate caregiving responsibilities, we measure the time respondents report spending "exclusively caring for children, the elderly, sick, or disabled individuals without pay." In the control group (Q1), the average weekly caregiving time is 24.77 hours (SD = 19.57), while in the treatment group (Q4), it rises to 29.21 hours (SD = 20.30). This suggests a greater unpaid caregiving burden in Q4, where households dedicate more time to caregiving activities.

Household Income. Household income is defined as the combined earnings of all employed household members. To account for income variability and improve interpretability, we use the log transformation of this variable in our analysis. In the control group (Q1), the average log income is 10.10 (SD = 4.15), compared to 11.55 (SD = 4.45) in the treatment group (Q4).

Relative Contribution. This variable quantifies the share of household resources—including work hours, caregiving hours, and income—that each parent contributes. It is calculated by dividing each parent's hours or income by the household total in each category. This measure provides

insight into the distribution of labor, caregiving, and financial responsibilities within households. Fathers contribute roughly 80% of work hours and nearly 65% of household income, while mothers account for 71% of caregiving hours, illustrating a notable division of roles within the family.

Treatment measure

<u>PEI enrollment rates.</u> To estimate the impact of losing childcare services, we assess each municipality's exposure to the PEI in the year before program termination. We calculate the PEI enrollment rate for each municipality by dividing the total number of program beneficiaries in 2018 by the number of households lacking social security and with children under 4 years old. We anticipate that areas with higher pre-termination enrollment rates will experience greater impacts following the program's termination compared to areas with lower enrollment rates. This variation in exposure is used to construct our treatment measure. Data on the number of beneficiaries was obtained from the Ministry of Welfare through a formal information request, while information on eligible households per municipality was sourced from INEGI's Microdata Department, based on the 2020 Mexican Census Population data.

Using this enrollment rate, we define quartiles weighted by population. Table 1 presents PEI enrollment rates for the first and fourth quartiles: treated municipalities (fourth quartile) show PEI enrollment rates between 35% and 83%, while control municipalities (first quartile) exhibit rates between 0% and 9%. Our treatment variable is a binary indicator set to one for municipalities with the highest PEI exposure (fourth quartile) and zero otherwise, beginning in 2019. Similarly, indicator variables are constructed for municipalities in the second and third quartiles, with the first quartile serving as the reference category.

Design and Estimation

To estimate the effect of PEI termination, we employ a difference-in-differences approach. Since the termination of PEI occurred uniformly across all areas on the same date, a standard difference-in-differences model, which would compare treated and untreated municipalities, is not feasible. Instead, we estimate the causal effect of termination through a dose-response approach that leverages variation from two sources: (1) the timing of the policy termination and (2) the extent of each municipality's exposure to the termination, determined by the distribution of

enrolled populations before the policy's end. This approach aligns with existing literature on the effects of welfare disenrollment (e.g., Argys et al. 2020; Bullinger and Tello-Trillo 2021).

We specifically assess whether municipalities with higher pre-termination enrollment rates—thus more significantly impacted by the termination—experienced larger shifts in hours allocated to labor and caregiving activities. Enrollment rates are divided into quartiles, allowing us to compare the second, third, and fourth quartiles to the first. If an effect exists, we anticipate it to be strongest in areas with the highest exposure to PEI (fourth quartile), whereas areas with no pre-termination enrollment should exhibit no effect (first quartile). This identification strategy thus relies on comparing municipalities with maximal exposure (fourth quartile) to those with minimal or no exposure (first quartile). For the model to better fit the data, we include all quartiles in the regression, although our primary interest is in the coefficients for these comparative groups, as presented in the results section.

We fit regression models using ordinary least squares (OLS), weighted by population, to estimate the effect of PEI's termination on parental worked hours, childcare, and household income. To do so, we estimate Equation 1:

$$(1)\ Y_{imqt} = \alpha(\sum_{q=2}^{4}[PEIEnrollment_m \in Q_{PEI} = q] * Post_t)_{mt} + X_{imqt} + \eta_m + \eta_{qt} + \eta_{st} + \epsilon_{imqt}$$

In the model, Y_{imqt}, is a measure of our outcome variables for household i in the municipality m in quarter q and year t. $Post_t$ is a dummy variable that takes the value of one in the four quarters of 2019, and zero otherwise. $PEIEnrollment_m \in Q_{PEI} = q$ denotes quartile q of the PEIEnrollment variable. The main variable of interest is interaction $Q_{PEI} = 4 *_t Post_{mqt}$ that varies across municipality, and time. η_m and η_{qt} represent municipality and time-fixed effects, respectively. η_{st} represents state-by-quarter-year fixed effects, which allows comparisons to be made only among municipalities within the same state. The vector X_{imqt} includes covariates such as municipal population, household members' average age, high school completion status, and the presence of older siblings.

In a standard difference in differences, the following two key identifying assumptions need to be held for this analysis to uncover causal effects. First, a difference-in-difference framework

assumes that hours worked, caregiving time, and income would have followed a common trend across all municipalities in the absence of the termination of PEI. Given that our specification allows the quarter-year fixed effects to vary by state, our approach assumes municipalities with differing levels of program saturation within a state would have followed similar trends in the absence of policy termination. Second, a difference-in-difference analysis assumes strict exogeneity, which implies that unmeasured determinants of our outcomes are uncorrelated with the entire history of the termination of PEI in the municipality.

One way of assessing the plausibility of these assumptions is through an event study analysis. Event study regressions allow us to track changes in hours worked, caregiving time, and income in the years before and after the program was terminated. We use Equation 2 to estimate an event study specification.

$$(2)\ Y_{imqt} = \alpha_{qt}(\sum_{qt<2018_4}[QT = qt] * \sum_{q=2}^{4}[PEIEnrollment_m \in Q_{PEI} = q] + \alpha_{qt}(\sum_{qt>2018_{q4}}[QT = qt] * \sum_{q=2}^{4}[PEIEnrollment_m \in Q_{PEI} = q] + X_{imqt} + \eta_m + \eta_{qt} + \eta_{st} + \epsilon_{imqt}$$

In the model, α_{qt} coefficients when qt<2018q4 measure changes in the outcome variable as a response to future policy changes and whether that anticipation effect varies with the share of the eligible population. These coefficients need to be equal to zero as, under the strict exogeneity, future changes due to the program should not affect current outcomes. The α_{qt} coefficients when qt>2018q4 measure the effects of the policy variable during each post-adoption period. These coefficients tell us whether the termination effects vary across time. As with Eq. (1), we only report results for the fourth quartile.

Main results

We begin by estimating the impacts of PEI termination hours worked, caregiving time, and income for all households in our sample. Table 2 presents the estimated coefficients from the difference-in-differences (DID) analysis conducted at the household level for our primary household outcomes: weekly hours worked (column 1), hours spent on caregiving (column 2), and household

income (column 3). The model incorporates fixed effects at the municipality, quarter-year, and state-quarter-year levels while also accounting for household socioeconomic characteristics.

The results in Panel A indicate a significant reduction in weekly hours worked among households in municipalities with the highest PEI enrollment (Q=4), with an estimated coefficient of -2.262 ($p < 0.05$). This suggests that, on average, households in these areas reduced their weekly working hours by almost 4% relative to the mean. In terms of hours spent on childcare, the analysis reveals a substantial decline in municipalities with high PEI enrollment (Q=4), reflected by a coefficient of -3.271 ($p < 0.01$). Relative to the mean, this corresponds to an 11% decrease. The DID analysis does not identify significant changes in household income related to the termination of the PEI program.

The results support the assumption that households did not anticipate the policy change, as trends in each outcome remain largely stable before the termination event (see Figure 2). The weekly hours worked variable displays a slightly declining trend before the policy's end, however importantly for our empirical strategy, the coefficients in the periods before the termination of PEI are small and do not show statistical evidence of differential trends. However, there was a noticeable and statistically significant decline in hours worked right after the termination. This suggests that families may have had less time available for employment due to the sudden loss of childcare services provided by the program. Similarly, weekly hours providing childcare remained stable before the termination event, showing no signs of preemptive changes. After the termination, although not statistically significant, there was a decrease in hours spent on childcare, a trend we explore in further detail below to explain why a decrease, rather than an increase, may be observed. Lastly, Household Income trends exhibit a few statistically significant differences between treated and control municipalities before the policy termination. However, the coefficients after the policy's termination do not show any statistically significant change in this outcome.

To better understand how this negative shock to childcare access affected household work and care dynamics, we estimate Eq.1 using the relative contribution to work, care, and income of fathers and mothers as outcome variables separately. Results indicate that the termination of the program had different impacts on fathers and mothers within households. Panel B of Table 2 presents results for fathers, showing positive coefficients for work and income contributions and a negative coefficient for care contributions. However, none of these coefficients are statistically significant, suggesting that the program's end did not significantly alter fathers' roles as primary

income earners. Consistent with the event study in Figure 4, Panel C of Table 2 reveals that mothers' contributions to childcare responsibilities increased by 1.8 percentage points, representing a 2.4% rise from a base contribution rate of 74%. The event study analysis shows a notable upward trend in mothers' childcare contributions following the program's termination, achieving statistical significance at the 90% confidence level in the second quarter of 2019. Conversely, fathers exhibit a statistically significant downward trend in childcare contributions at the 10% level in the second and third quarters of 2019 (refer to Figures 3 and 4). This pattern suggests that mothers assumed a larger share of caregiving responsibilities, likely to compensate for the loss of childcare services.

Heterogeneity results

Household Structure Analysis

The aggregated household-level effects become more detailed when we consider household structure. As shown in Table 3, in two-parent households, there was an estimated reduction of 1.86 hours in weekly working hours (a 3% decrease relative to a 61.45 baseline average). Additionally, Table 4 shows that time spent on childcare decreased significantly, with an approximate weekly reduction of 3.64 hours (a 12% decrease relative to a 30.19 baseline average). In contrast, single-parent households did not experience statistically significant changes in either work or childcare hours. This suggests that these households did not consistently adjust their time allocations following the program's termination. Women head these single-parent households in 70% of the cases. Such findings may reflect the limited flexibility of single parents, who, as sole providers, have less ability to reduce work hours or shift caregiving responsibilities due to the absence of a second adult in the household.

The event studies presented in Figures 5 and 6 reveal contrasting impacts across family structures following the program's termination. Two-parent households exhibit a marked and sustained reduction in both weekly work hours and time dedicated to childcare, suggesting that one parent may have reduced their work hours or exited the workforce to offset the loss of childcare support. In contrast, single-parent households show minimal changes, likely reflecting the imperative to sustain income despite the reduced support. Although single parents initially increased their time spent on caregiving immediately after the program's end, they appear to have adapted to the new circumstances shortly thereafter.

Informal Employment Type

Now, we turn to examining households where at least one member works in the informal sector. Results presented in Table 5 reveal considerable shifts in labor and caregiving hours following the termination of the PEI program. As shown in Columns 1 and 3 of Table 5, the end of the program led to a notable decline in weekly hours worked, especially in households involved in the general informal sector and among street vendors. Households in the general informal sector experienced a reduction of approximately five hours per week (an 8% decrease relative to a 61.80 baseline average), while street vendors saw an even greater decline of about six hours per week (a 9.2% decrease relative to a 64.16 baseline average). These findings indicate that the loss of PEI support made it difficult for households in these informal employment categories to maintain their work hours. In terms of caregiving hours, Table 7 reflects similar results. The discontinuation of the program significantly cut back on the weekly hours devoted to childcare, particularly in households within the general informal sector and those with street vendors. Specifically, households in the general informal sector saw a decline of roughly 2.7 hours per week in childcare time (a 9.7% decrease relative to a 27.82 baseline average), while households with street vendors recorded a comparable decrease of about 2 hours per week.

The event study analysis illustrated in Figure 9 further supports these findings, indicating a sustained decrease in weekly childcare hours post-termination, especially among households in the general informal sector and street vendors. Conversely, the hours allocated to childcare in households with paid housekeepers displayed more significant variability and lacked a clear trend, indicating a lower reliance on PEI support for maintaining childcare hours.

If we narrow the focus to households with a mother sole provider who works in the informal sector, the results show a distinct pattern. As presented in Table 6, the PEI program's termination significantly affected the weekly hours worked by female street vendors. Female sole providers in street vending experienced a notable decrease of approximately 9.35 hours per week in their working time (a 14.5% decrease relative to a 64.16 baseline average), highlighting the substantial impact of losing childcare support on their labor participation. However, for female sole providers in other types of informal employment, such as those in the general informal sector or paid housekeepers, there was no statistically significant reduction in weekly hours worked. The event

study in Figure 8 further supports these findings, showing a sustained decrease in weekly hours worked among street vendors following the program's termination.

In terms of caregiving hours, as shown in Table 8, the termination of the PEI program did not produce a statistically significant effect on weekly childcare hours across any subgroup of informal employment. The closest to statistical significance is for paid housekeepers with a positive coefficient of 11 hours, close to being statistically significant at the 10 percent level. The event study analysis in Figure 10 aligns with this observation, showing no clear or sustained trend of weekly childcare hours in these households after the program's termination. Except for the coefficient of the second quarter of 2019 for paid housekeepers, that reaches statistical significance.

In summary, the PEI program's termination significantly impacted labor and childcare hours in households with multiple informal workers, especially among street vendors, who likely had to reallocate their time in response to the loss of support. In contrast, in single-provider households with female sole providers, the absence of significant effects on childcare hours and limited impact on labor time for most subgroups underscores constrained flexibility to adjust caregiving and working hours.

Robustness Checks

The previous section highlighted significant effects of the PEI program's termination on both weekly work hours and caregiving hours. In this section, we examine the sensitivity of these findings. First, we consider whether our results might be influenced by two concurrent shocks. A new cash transfer program was introduced after PEI's termination, albeit with lower coverage and uncertainty around whether recipients used the funds for childcare services. To assess if this transfer mitigated the impact of PEI's termination, we extend our main model by including an interaction term between the new program's enrollment rates and a post-2019 indicator variable. This interaction controls for differences in work and caregiving hours across municipalities with varying program coverage levels.

We also evaluate potential effects of the Progresa/Oportunidades/Prospera program, a conditional cash transfer initiative that started in 1997 and ended at the same time as PEI in 2019. Previous research found that this program increased childcare hours among adult women in households with children under three (Dubois and Rubio-Codina, 2011). To determine whether

changes in work and caregiving hours may be driven by the end of Progresa, we include an interaction term based on Progresa enrollment rates before its termination.

Figure 11 presents results for both work hours (left panel) and caregiving hours (right panel). Findings remain largely consistent across both outcomes, though the inclusion of the new program variable introduces slightly more noise in the coefficients.

The second robustness check (see Figure 12) tests an alternative approach to defining the treatment variable, assessing whether the effects identified in the main analysis are consistent across different specifications. This analysis compares results from using PEI enrollment quantiles (Q=4) with those from a continuous measure of PEI enrollment rate. In the left panel (Hours Worked), the main specification with quantiles shows a significant reduction in hours worked in high-enrollment municipalities (Q=4) following PEI's termination. Using the continuous treatment measure reveals a larger effect, though with slightly less precision. Similarly, in the right panel (Hours Providing Care), the continuous specification shows a larger reduction in caregiving hours, which, while less precisely estimated, remains statistically significant. These findings indicate that the impacts on hours worked and caregiving hours are robust to different operationalizations of the treatment variable

In addition to sensitivity checks, we conduct a randomization test to assess whether the effects we observe could plausibly result from random chance. Specifically, we compute the effect of PEI's termination using 500 permutations of the treatment, maintaining the quartile distribution constant. The histograms in Figure 13 illustrate the distribution of these 500 estimated coefficients. Red dashed lines mark the 10th and 90th percentiles, indicating critical values for hypothesis testing. Values outside these percentiles represent the rejection region for the null hypothesis. We reject the null hypothesis because our estimated coefficients for weekly work hours (left histogram) and weekly caregiving hours (right histogram) fall outside these bounds. This supports the statistical significance of our findings, suggesting that the observed effects are unlikely to be due to random chance. We thus conclude that the PEI program's termination had a meaningful impact on both work and childcare hours, as reflected in our main analysis.

Conclusion

As explained in the literature review, it is not infrequent to find studies that identify small effects of childcare on women's employment, for instance, because a country already has a high rate of female employment, because other family policies are missing, because already working women just switch from informal to formal care, or use the money provided to increase disposable income instead of buying childcare, or because social norms affect the likelihood of women getting a job or sending a child to paid care (Cascio et al. 2015; Morrisey, 2017; Vuri, 2016; Nandi et al. 2020). In this paper, we have addressed explicitly some of the arguments that have been put forward explaining these limited effects, with important innovations. First, we are not dealing with a gradual introduction of childcare services, an incremental extension of coverage, or incremental adjustments to the type of services provided (for instance, an increase of operating hours), but with a dramatic policy change: a sudden shock (the termination of PEI in 2019) which meant that over 300,000 working mothers lost access to childcare.

Second, the type of intervention (direct subsidy to childcare centers for each child registered) avoids the problem of not knowing whether the money is spent on childcare and not on other purposes. Hence, the policy increases a household's net disposable income but does not affect women's employment (Vuri, 2016). And third, it has been argued that childcare services are not equally important to all women. We study a program that used to benefit specifically those women more likely to benefit from subsidized childcare: poor women in households outside the formal sector, and, according to previous studies (Angeles, 2011), low-skilled, with precarious jobs (domestic workers, door-to-door vendors), and many of the head of their households.

We found that the abrupt termination of childcare services resulted in a significant reduction in weekly hours worked by parents and a decrease in the number of weekly care hours. However, like any policy change, the effects were not uniformly experienced. The findings suggest an unequal shift in family dynamics. Fathers were able to maintain their traditional role as providers, while mothers were forced to take on dual responsibilities, managing both childcare and work duties without making a significant economic contribution. This analysis emphasizes that the withdrawal of support programs can have broader effects beyond the immediately visible, perpetuating gender inequalities in the division of caregiving tasks and labor opportunities within households. Although these findings offer suggestive evidence, they highlight the potential structural barriers women face when institutional support is removed, further widening the existing disparities in the roles and economic contributions of mothers and fathers.

In addition, certain household and employment characteristics lead to differentiated effects. Regarding household composition, the impact was particularly pronounced among two-parent households, with the decrease in care time primarily attributed to fathers. Regarding employment type, parents in the informal sector experienced a greater reduction in work hours, while sole-provider mothers faced the most substantial decrease. These findings underscore the advantages of using disaggregated data to examine the interactions among household and employment characteristics. They also emphasize the importance of considering the diversity of the target population when making policy decisions, as certain groups are likely to experience the negative effects disproportionately. Further research is needed to understand how additional factors (such as children's age, prior work experience, and presence of other caregivers like grandparents) may shape these effects, as well as the way losing access to childcare services impacts other dimensions, from parents' mental health, children's future educational attainment and intergenerational income, as well as the longer-term effects of dismantling.

Our paper makes significant contributions to several strands of literature. First, we expand current research on childcare availability and parental employment by examining these issues in new contexts, particularly in developing countries where large segments of the population live in poverty and lack access to social services due to informal employment. Second, we enhance the literature on family policy and household structure by demonstrating how household composition mediates the effects of childcare loss on the distribution of time between caregiving and work. Finally, we contribute to the emerging research on the effects of policy dismantling both in developed and developing by rigorously investigating the impacts of canceling a social program. Our study showcases the methodological opportunities presented by the drastic interruption of services, to explore the impacts of such policy changes.

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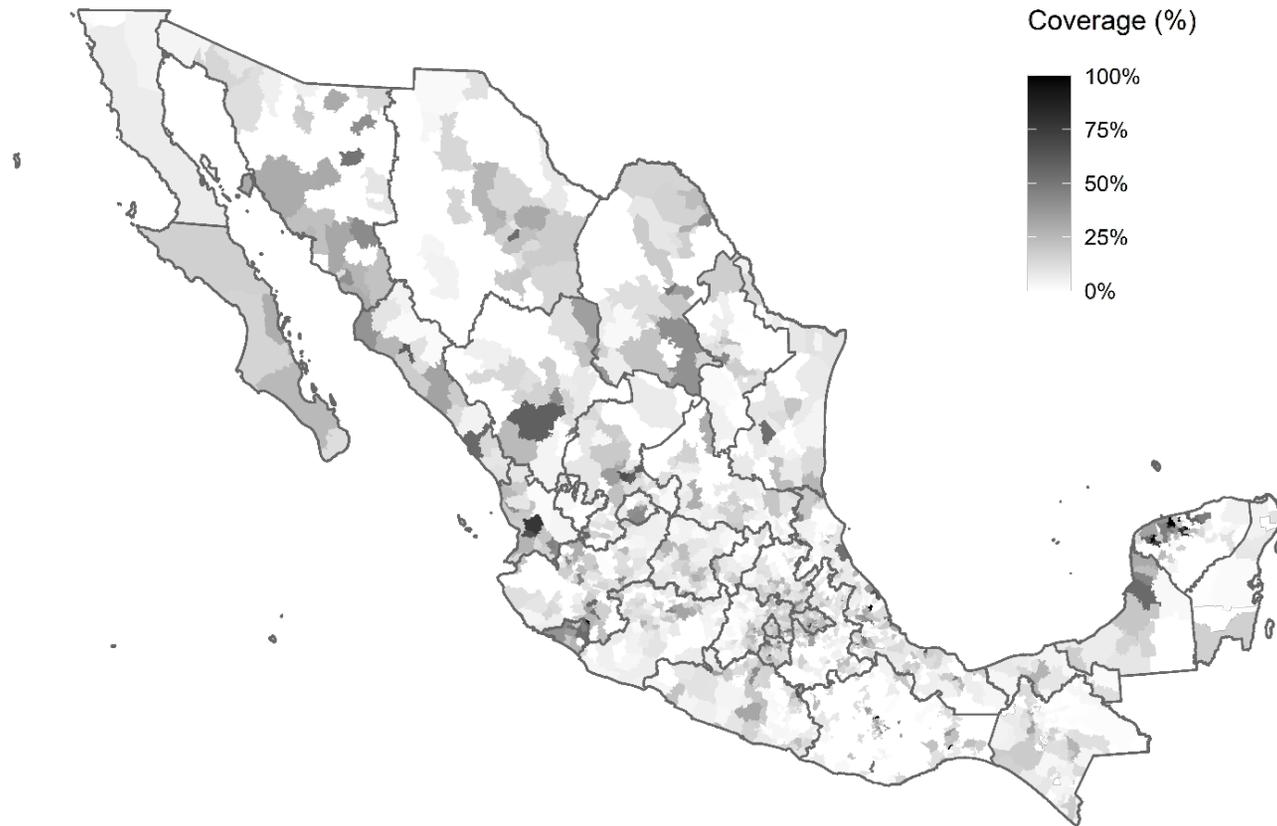
Figures

Figure 1: Childcare Coverage by Municipality in Mexico

Notes: Coverage is calculated by dividing the total number of beneficiaries of the Childcare Program to Support Working Mothers (PEI) in each municipality in 2018 by the total number of households without access to social security and with children younger than 4 years old.
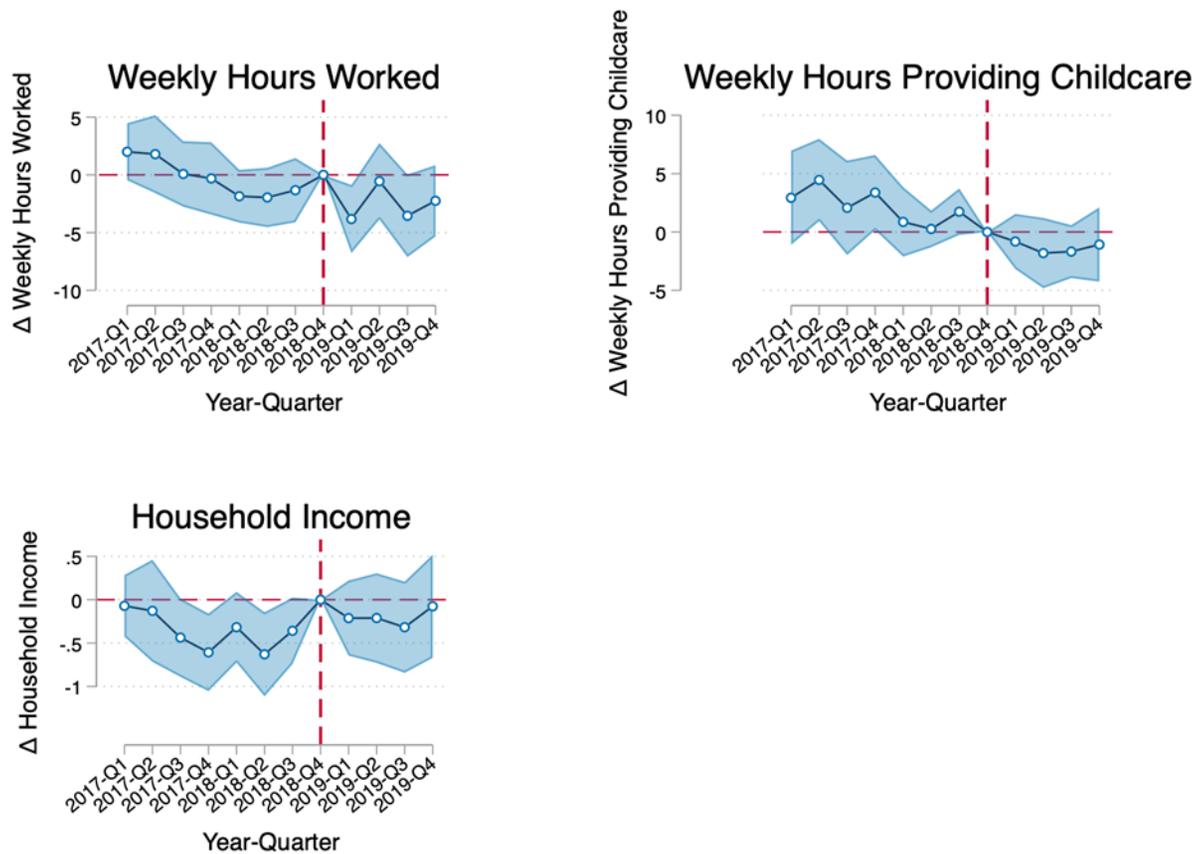
Figure 2. Event Study Analysis of the Impact of Program Termination on Household Outcomes: Weekly Work Hours, Childcare Hours, and Income (Quartile 75 and up)

Notes: This figure presents estimated coefficients and 95% confidence intervals from an event study specification. The outcome data is sourced from the National Survey of Occupation and Employment (ENOE), spanning quarterly data from 2017 to 2019. Each regression controls for municipality, quarter-year, and state-by-quarter-year fixed effects and includes covariates for municipality population, household-level age, high school status, and presence of older siblings. For further details on the estimation approach, see Equation 2.
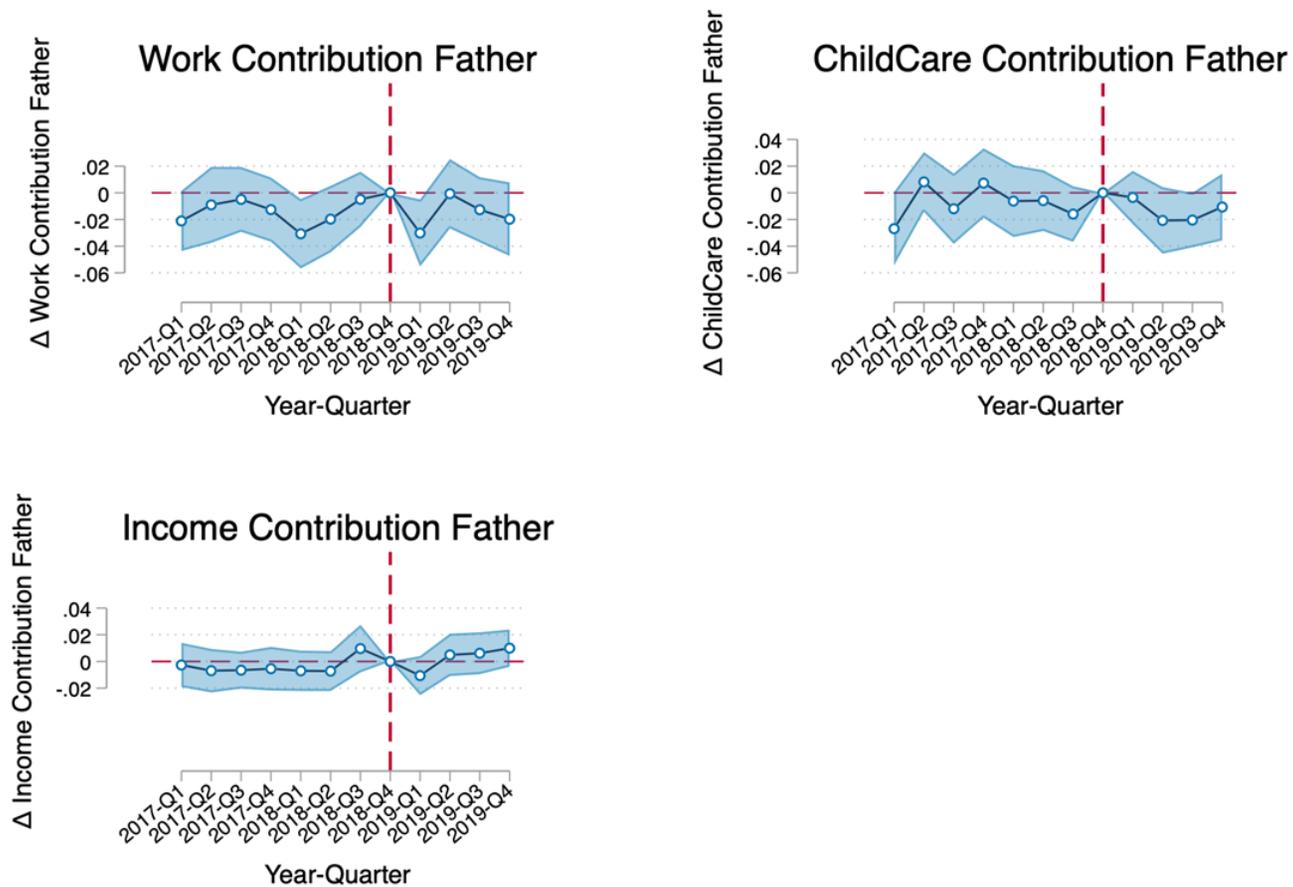
Figure 3. Event Study Analysis of Program Termination Effects on Fathers' Labor, Childcare, and Income Contributions (Quartile 75 and up)

Notes: This figure presents estimated coefficients and 95% confidence intervals from an event study specification. The outcome data is sourced from the National Survey of Occupation and Employment (ENOE), spanning quarterly data from 2017 to 2019. Each regression controls for municipality, quarter-year, and state-by-quarter-year fixed effects and includes covariates for municipality population, household-level age, high school status, and presence of older siblings. For further details on the estimation approach, see Equation 2.
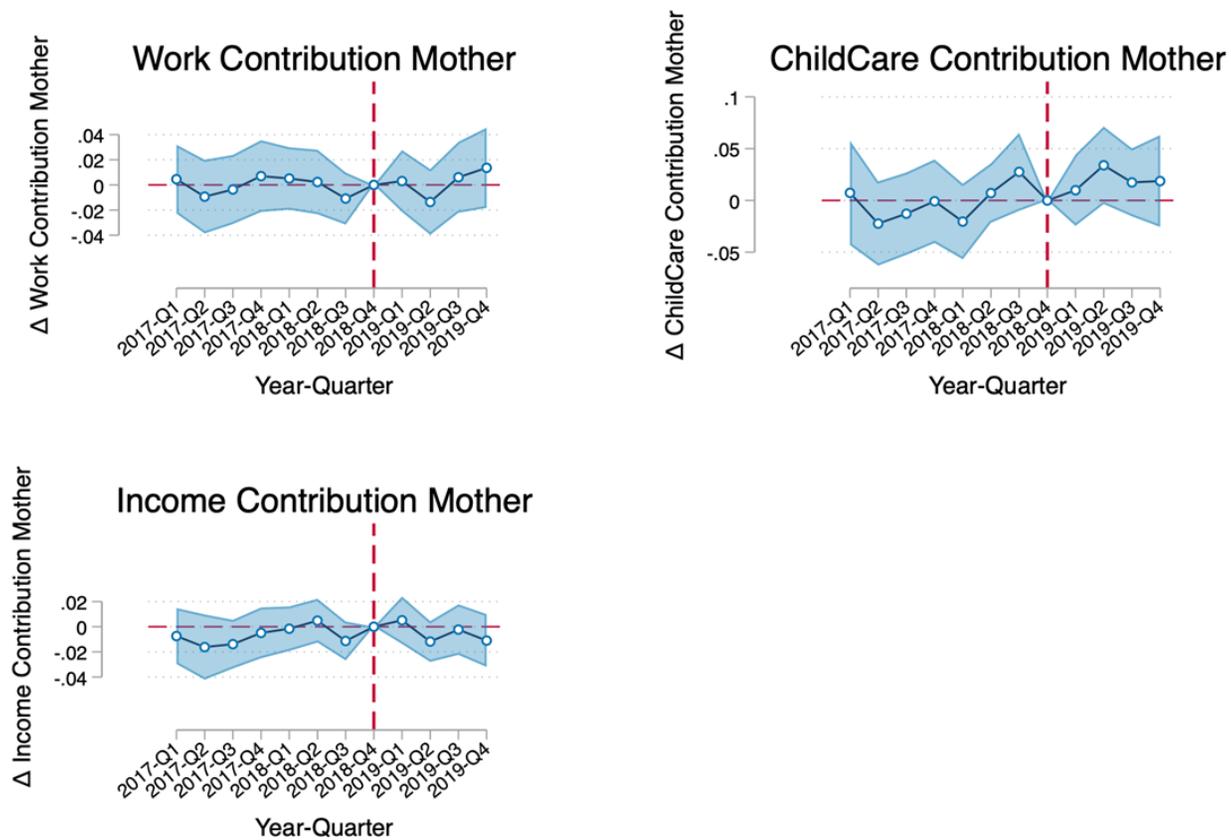
Figure 4. Event Study Analysis of Program Termination Effects on Mothers' Labor, Childcare, and Income Contributions (Quartile 75 and up)

Notes: This figure presents estimated coefficients and 95% confidence intervals from an event study specification. The outcome data is sourced from the National Survey of Occupation and Employment (ENOE), spanning quarterly data from 2017 to 2019. Each regression controls for municipality, quarter-year, and state-by-quarter-year fixed effects and includes covariates for municipality population, household-level age, high school status, and presence of older siblings. For further details on the estimation approach, see Equation 2.
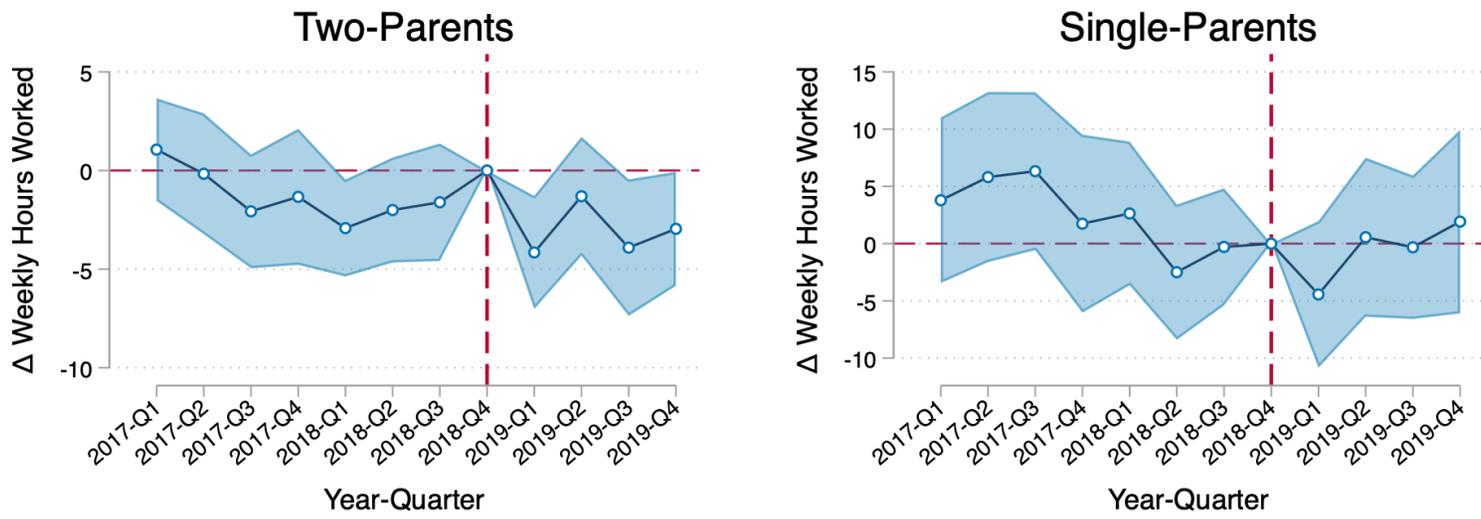
Figure 5. Event Study Analysis of Program Termination Effects on Weekly Hours Worked by Family Structure: Two-Parent and Single-Parent Households (Quartile 75 and up)

Notes: This figure presents estimated coefficients and 95% confidence intervals from an event study specification. The outcome data is sourced from the National Survey of Occupation and Employment (ENOE), spanning quarterly data from 2017 to 2019. Each regression controls for municipality, quarter-year, and state-by-quarter-year fixed effects and includes covariates for municipality population, household-level age, high school status, and presence of older siblings. For further details on the estimation approach, see Equation 2.
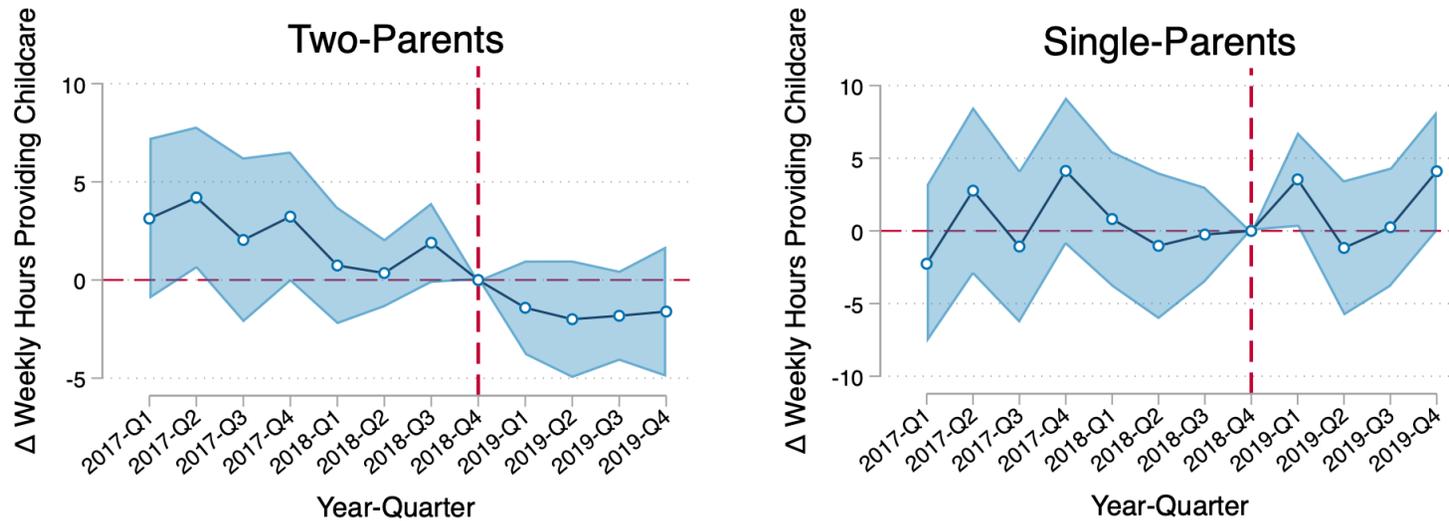
Figure 6. Event Study Analysis of Program Termination Effects on Weekly Childcare Hours by Family Structure: Two-Parent and Single-Parent Households (Quartile 75 and up)

Notes: This figure presents estimated coefficients and 95% confidence intervals from an event study specification. The outcome data is sourced from the National Survey of Occupation and Employment (ENOE), spanning quarterly data from 2017 to 2019. Each regression controls for municipality, quarter-year, and state-by-quarter-year fixed effects and includes covariates for municipality population, household-level age, high school status, and presence of older siblings. For further details on the estimation approach, see Equation 2.

Figure 7. Event Study Analysis of Program Termination Effects on Weekly Hours Worked in Informal Employment (Quartile 75 and up)

Notes: This figure presents estimated coefficients and 95% confidence intervals from an event study specification. The outcome data is sourced from the National Survey of Occupation and Employment (ENOE), spanning quarterly data from 2017 to 2019. Each regression controls for municipality, quarter-year, and state-by-quarter-year fixed effects and includes covariates for municipality population, household-level age, high school status, and presence of older siblings. For further details on the estimation approach, see Equation 2.
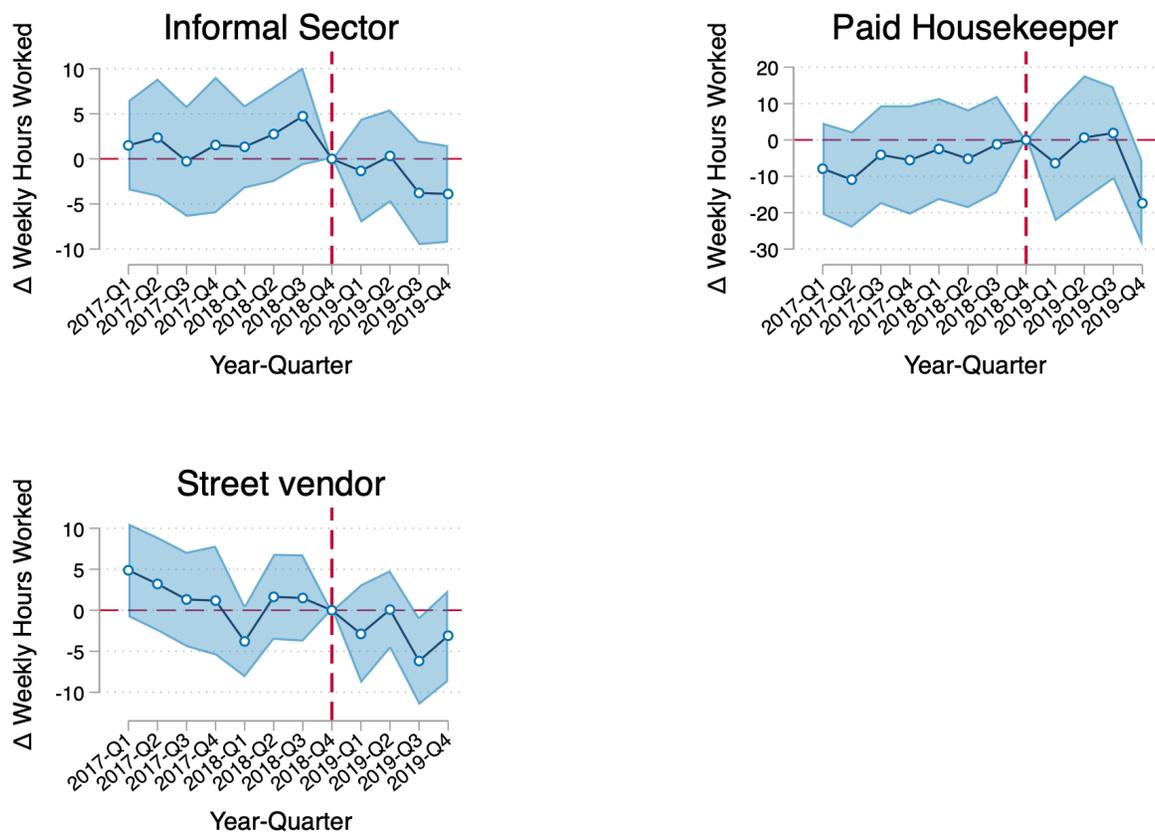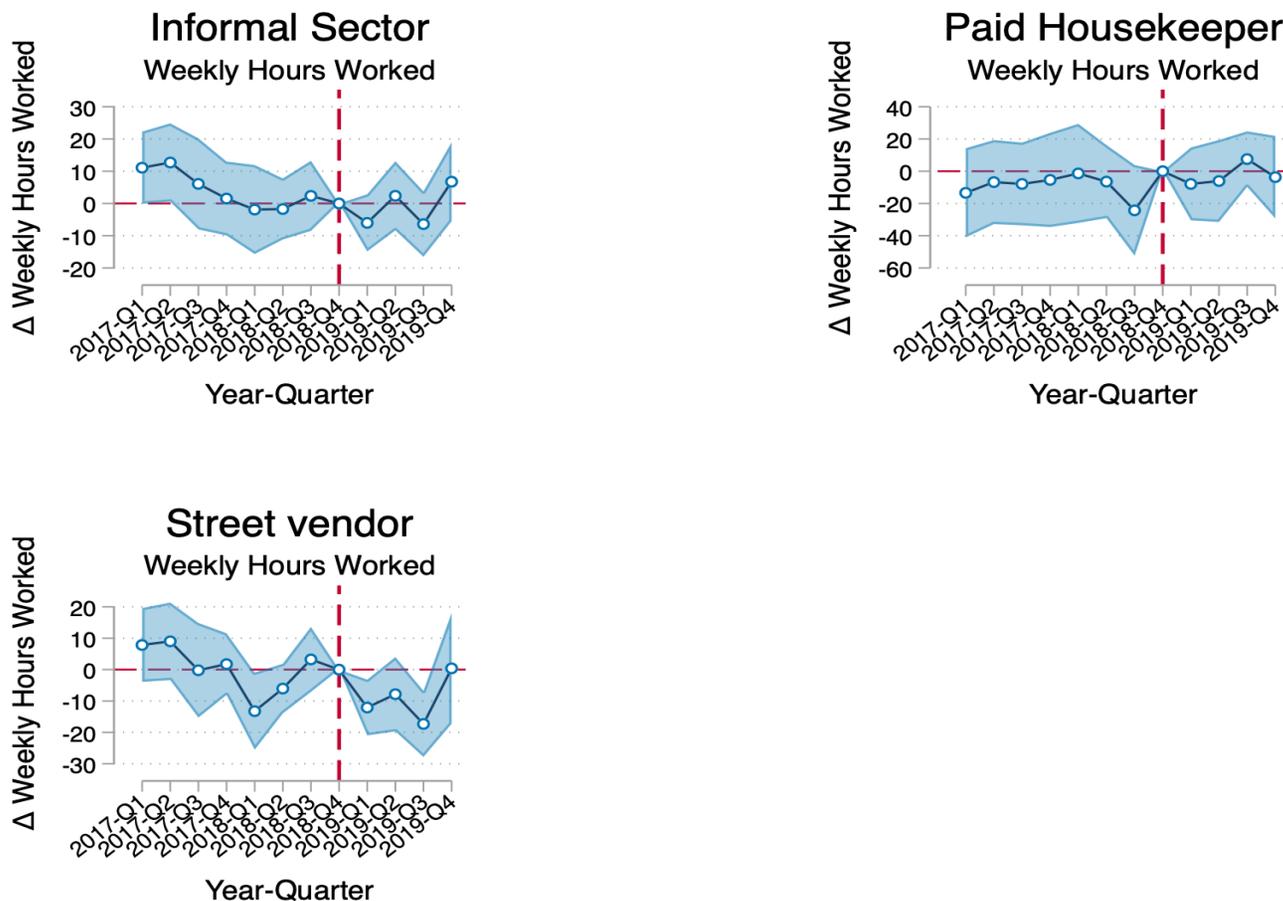
Figure 8. Event Study Analysis of Program Termination Effects on Weekly Hours Worked in Informal Employment for Female Sole Providers (Quartile 75 and up)

Notes: This figure presents estimated coefficients and 95% confidence intervals from an event study specification. The outcome data is sourced from the National Survey of Occupation and Employment (ENOE), spanning quarterly data from 2017 to 2019. Each regression controls for municipality, quarter-year, and state-by-quarter-year fixed effects and includes covariates for municipality population, household-level age, high school status, and presence of older siblings. For further details on the estimation approach, see Equation 2.

Figure 9. Event Study Analysis of Program Termination Effects on Weekly Childcare Hours in Informal Employment (Quartile 75 and up)

Notes: This figure presents estimated coefficients and 95% confidence intervals from an event study specification. The outcome data is sourced from the National Survey of Occupation and Employment (ENOE), spanning quarterly data from 2017 to 2019. Each regression controls for municipality, quarter-year, and state-by-quarter-year fixed effects and includes covariates for municipality population, household-level age, high school status, and presence of older siblings. For further details on the estimation approach, see Equation 2.
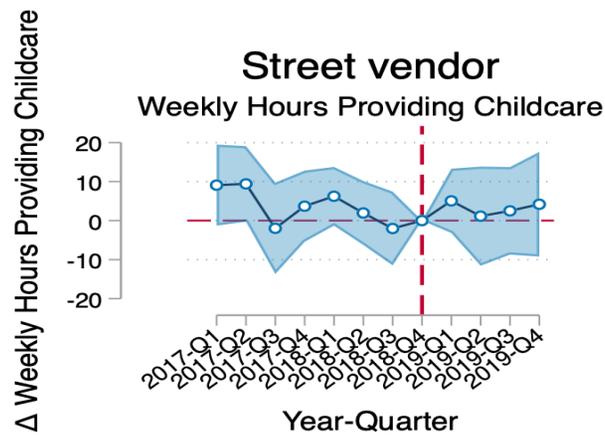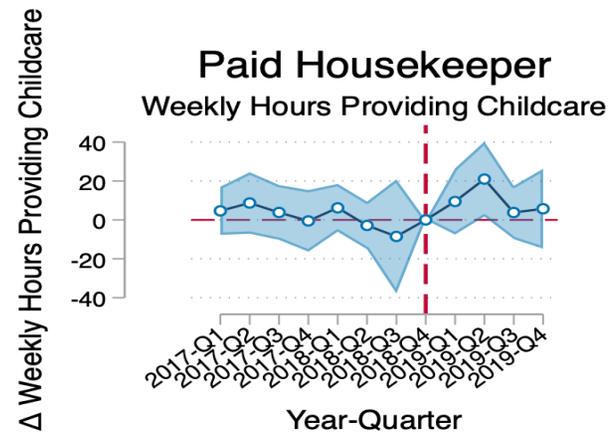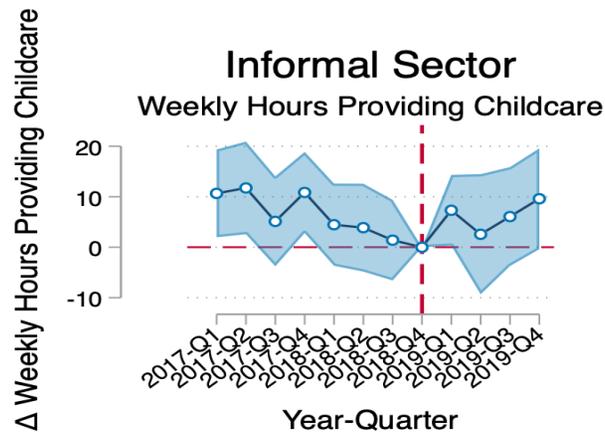
Figure 10. Event Study Analysis of Program Termination Effects on Weekly Childcare Hours in Informal Employment for Female Sole Providers (Quartile 75 and up)

Notes: This figure presents estimated coefficients and 95% confidence intervals from an event study specification. The outcome data is sourced from the National Survey of Occupation and Employment (ENOE), spanning quarterly data from 2017 to 2019. Each regression controls for municipality, quarter-year, and state-by-quarter-year fixed effects and includes covariates for municipality population, household-level age, high school status, and presence of older siblings. For further details on the estimation approach, see Equation 2.
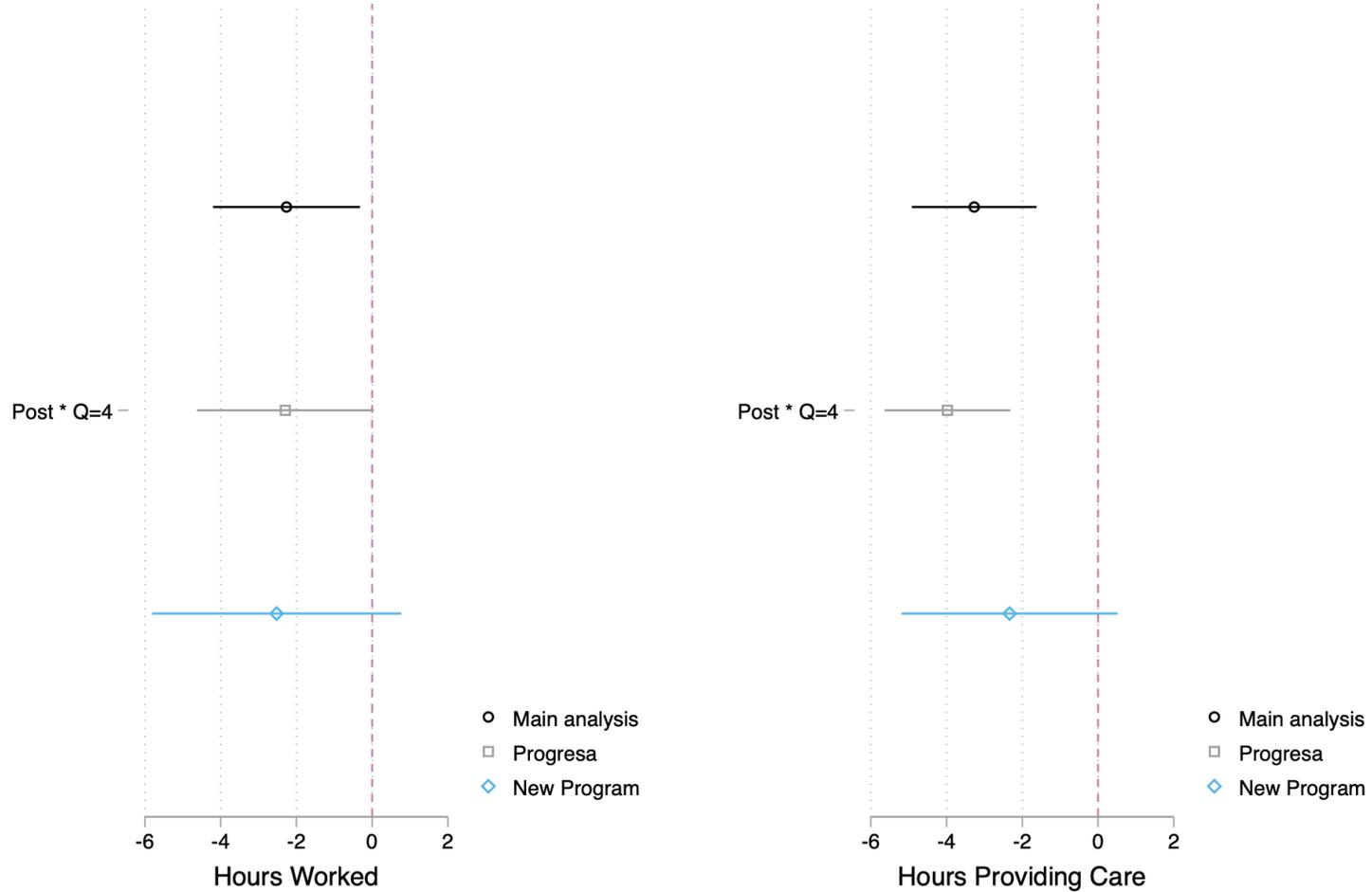
Figure 11. DiD Analysis Adjusted for Concurrent Shocks During PEI Termination

Notes. This figure displays the estimated coefficients derived from regressions based on Eq. 1. Each regression model includes fixed effects for municipality, quarter-year, and state-by-quarter-year interactions. Covariates include municipality population, household-level characteristics such as age, high school status, and presence of older siblings, along with indicators for Progresa and New Program shocks in the relevant specifications.
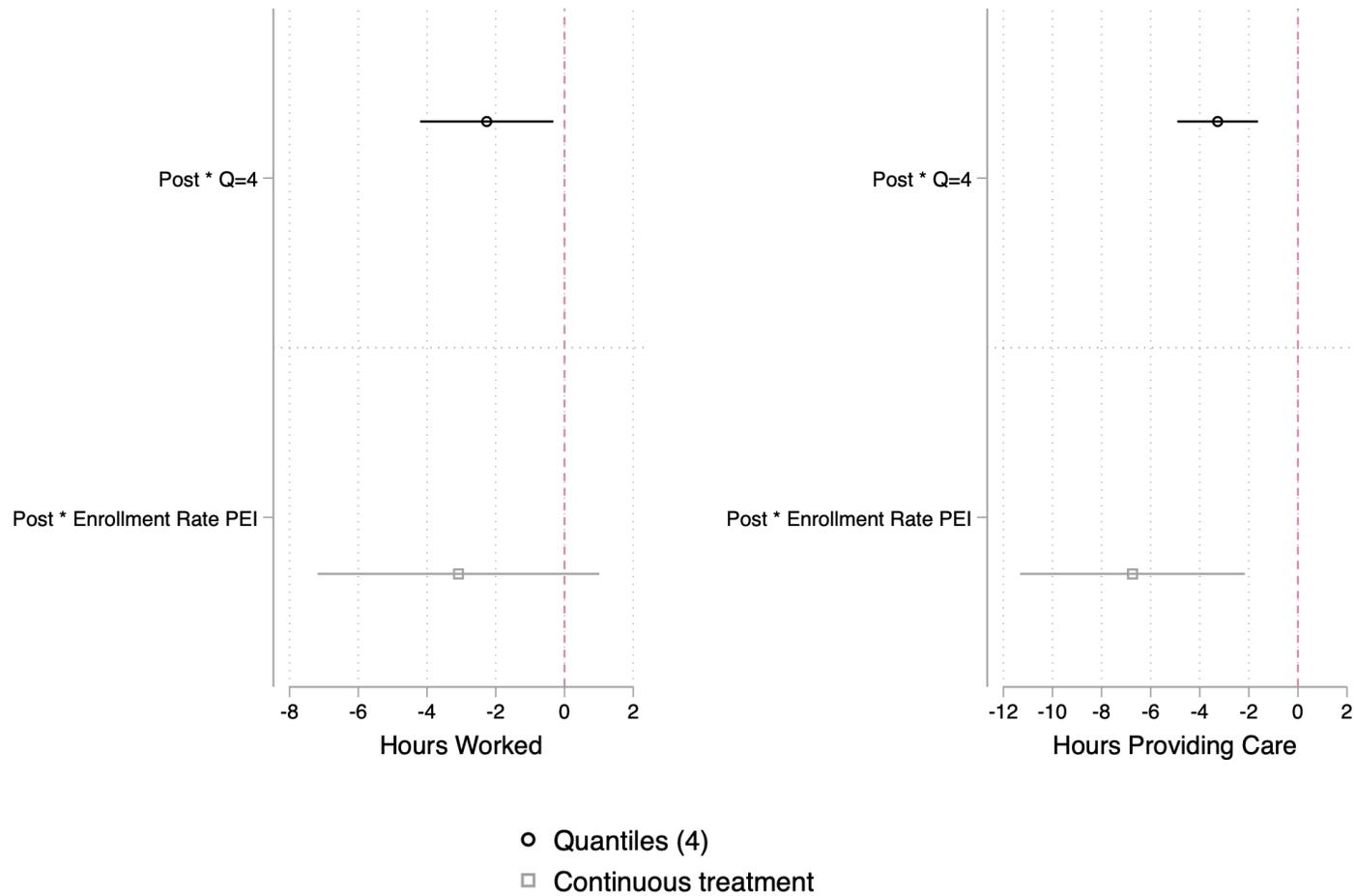
Figure 12. DiD Analysis Using Alternative Treatment Specifications

Notes. This figure displays the estimated coefficients derived from regressions based on Eq. 1. Each regression model includes fixed effects for municipality, quarter-year, and state-by-quarter-year interactions. Covariates include municipality population, household-level characteristics such as age, high school status, and presence of older siblings.
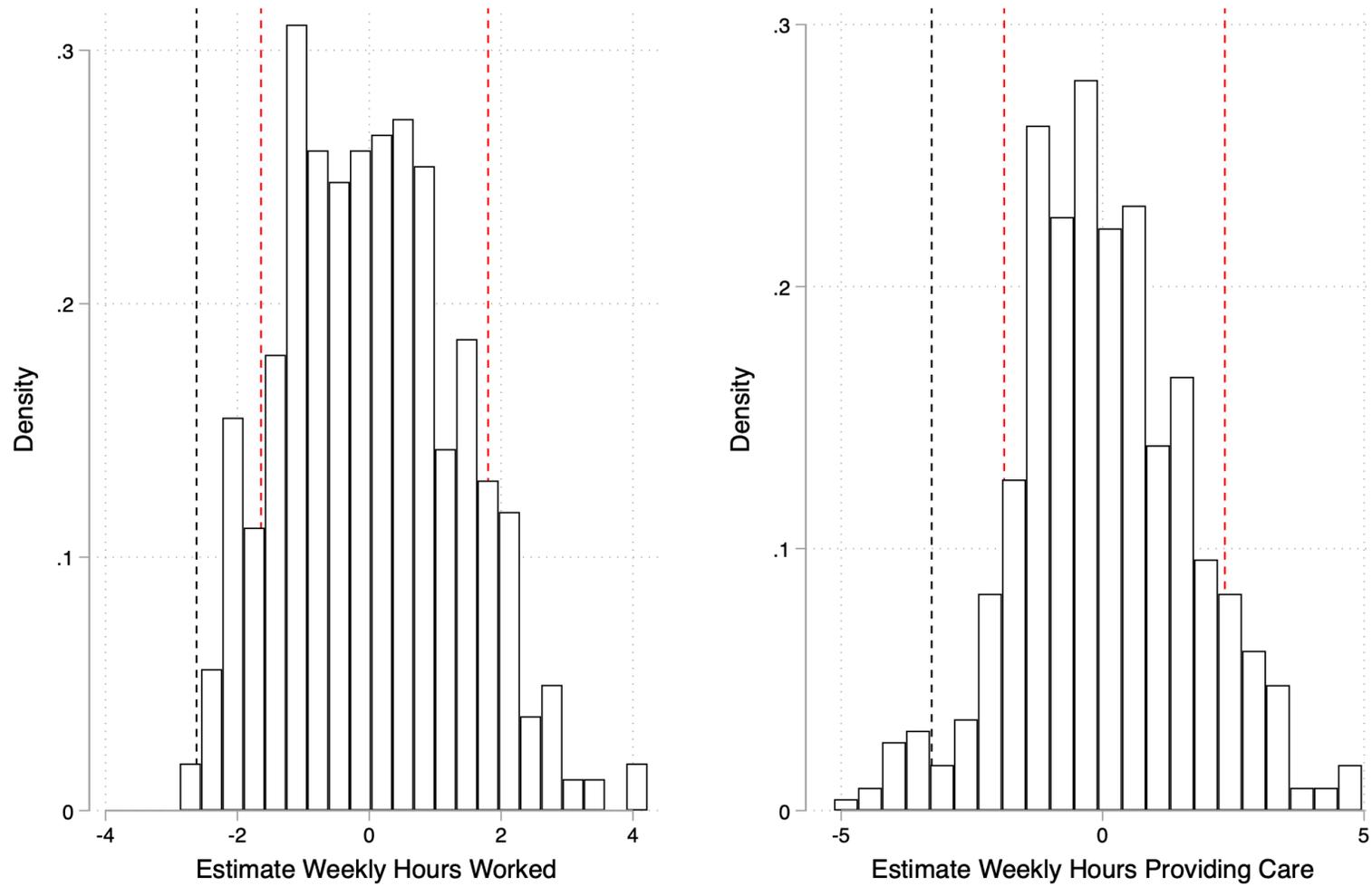
Figure 13. Permutation Test

Notes. This figure plots the estimated coefficients from 500 permutations of our main specification. The black line represents the
true estimated effect. Each regression controls for municipality, quarter-year, and state-by-quarter-year fixed effects and includes covariates for municipality
population, household-level age, high school status, and presence of older siblings. For more details about the estimation, see Equation 1

Tables

<div align="center">

Table 1: Descriptive Statistics

</div>

	Full Sample		Control group (Q1)		Treatment Group (Q4)	
	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**
Outcome variables						
Weekly Hours Worked	55.050	29.441	49.977	29.167	58.299	29.341
Hours Providing Childcare	26.530	20.043	24.766	19.557	29.207	20.299
Household Income (Log)	10.899	4.396	10.099	4.146	11.551	4.451
Work Contribution Father	0.781	0.309	0.801	0.317	0.768	0.303
ChildCare Contribution Father	0.162	0.211	0.141	0.205	0.190	0.213
Income Contribution Father	0.642	0.164	0.653	0.160	0.637	0.165
Work Contribution Mother	0.209	0.310	0.168	0.293	0.235	0.31
ChildCare Contribution Mother	0.714	0.347	0.710	0.366	0.733	0.311
Income Contribution Mother	0.416	0.240	0.405	0.238	0.422	0.240
Covariates						
Population	462922.600	467313.000	282494.700	467999.600	488192.100	400768.300
High School or Less	0.621	0.485	0.749	0.434	0.533	0.499
Average Household Age	31.818	6.450	31.669	6.568	31.967	6.372
Siblings 5-11	0.563	0.496	0.609	0.488	0.542	0.498
Subgroup analysis variables						
Two-Parents	0.908	0.289	0.910	0.286	0.907	0.290
One-Parent	0.092	0.289	0.090	0.286	0.093	0.290
Informal Sector	0.320	0.545	0.321	0.543	0.295	0.528
Paid Housekeeper	0.033	0.181	0.025	0.157	0.036	0.188
Street vendor	0.242	0.467	0.300	0.507	0.207	0.437

Table 2. Effect of PEI's Termination on Household Outcomes

	Hours Worked	Hours Providing Childcare	Household Income
	(1)	(2)	(3)
A. Household			
Post * Q=2	-1.712*	-0.860	0.0395
	(0.972)	(0.742)	(0.162)
Post * Q=3	-1.049	-2.550**	0.315*
	(1.017)	(0.999)	(0.178)
Post * Q=4	**-2.262****	**-3.271*****	**0.117**
	(0.989)	**(0.839)**	**(0.200)**
Baseline DV mean	58.33	29.19	11.52
B. Fathers Contribution			
Post * Q=2	-0.000140	0.00720	-0.00728
	(0.008)	(0.009)	(0.005)
Post * Q=3	-0.00484	-0.00733	-0.0108***
	(0.007)	(0.009)	(0.004)
Post * Q=4	0.00186	-0.00505	0.00112
	(0.008)	(0.006)	(0.005)
Baseline DV mean	0.770	0.190	0.640
C. Mothers Contribution			
Post * Q=2	0.00930	-0.00704	0.0131**
	(0.008)	(0.010)	(0.006)
Post * Q=3	0.0109	0.0129	0.00876
	(0.007)	(0.010)	(0.006)
Post * Q=4	**0.00776**	**0.0182***	**0.00252**
	(0.008)	**(0.010)**	**(0.008)**
Baseline DV mean	0.230	0.740	0.420
Obs	181,268	181,268	181,268

Notes: This table reports the estimated coefficients and standard errors from estimating Eq. 1. The outcome data is from the National Survey of Occupation and Employment (ENOE) and covers the quarterly information between 2017 and 2019. Each regression controls for municipality, quarter-year, and state-by-quarter-year fixed effects and includes covariates for municipality population, household-level age, high school status, and presence of older siblings. For more details about the estimation, see Equation 1. * p<0.10, ** p<0.05, *** p<0.01

Table 3. Effect of PEI's Termination on Number of Weekly Worked Hours by Family Structure

	Weekly Worked Hours	
	(1)	(2)
	Two-parents	One-parent
Post * Q=2	-0.761	-4.444**
	(0.885)	(2.075)
Post * Q=3	-0.493	-3.204*
	(0.884)	(1.874)
Post * Q=4	**-1.860****	**-2.652**
	(0.867)	(2.294)
Constant	99.16***	170.5**
	(22.416)	(71.820)
Baseline DV mean	61.45	27.56
Obs	163,628	17,640

Notes: This table reports the estimated coefficients and standard errors from estimating Eq1. The outcome data is from the National Survey of Occupation and Employment (ENOE) and covers the quarterly information between 2017 and 2019. Each regression controls for municipality, quarter-year, and state-by-quarter-year fixed effects and includes covariates for municipality population, household-level age, high school status, and presence of older siblings. For more details about the estimation, see Equation 1.
* $p<0.10$, ** $p<0.05$, *** $p<0.01$

Table 4. Effect of PEI's Termination on Number of Weekly Childcare Hours by Family Structure

	Weekly Childcare Hours	
	(1)	(2)
	Two-parents	One-parent
Post * Q=2	-0.899	3.278***
	(0.791)	(1.072)
Post * Q=3	-2.752**	0.216
	(1.113)	(0.959)
Post * Q=4	**-3.642***	**1.529**
	(0.900)	(0.937)
Constant	101.2***	61.94**
	(35.881)	(31.187)
Baseline DV mean	30.19	19.28
Obs	163,628	17,640

Notes: This table reports the estimated coefficients and standard errors from estimating Eq1. The outcome data is from the National Survey of Occupation and Employment (ENOE) and covers the quarterly information between 2017 and 2019. Each regression controls for municipality, quarter-year, and state-by-quarter-year fixed effects and includes covariates for municipality population, household-level age, high school status, and presence of older siblings. For more details about the estimation, see Equation 1.
* $p<0.10$, ** $p<0.05$, *** $p<0.01$

Table 5. Effects of PEI Program Termination on Number of Weekly Hours Worked in Households by Type of Informal Employment

	Weekly Hours Worked		
	(1)	(2)	(3)
	Informal Sector	Paid Housekeeper	Street vendor
Post * Q=2	-2.035	-4.256	-2.487
	(1.581)	(3.955)	(1.561)
Post * Q=3	-4.172***	1.284	-6.997***
	(1.570)	(5.432)	(1.630)
Post * Q=4	**-4.971***	**-4.364**	**-5.944***
	(1.616)	(4.199)	(1.497)
Constant	105.7***	169.9	159.4***
	(36.079)	(116.533)	(53.297)
Baseline DV mean	61.80	61.07	64.16
Obs	49,965	5,783	39,722

Notes: This table reports the estimated coefficients and standard errors from estimating Eq1. The outcome data is from the National Survey of Occupation and Employment (ENOE) and covers the quarterly information between 2017 and 2019. Each regression controls for municipality, quarter-year, and state-by-quarter-year fixed effects and includes covariates for municipality population, household-level age, high school status, and presence of older siblings. For more details about the estimation, see Equation 1.
* $p<0.10$, ** $p<0.05$, *** $p<0.01$

Table 6. Effects of PEI Program Termination on Number of Weekly Hours Worked in Households with a Female Sole Provider by Type of Informal Employment

	Weekly Hours Worked		
	(1)	(2)	(3)
	Informal Sector	Paid Housekeeper	Street vendor
Post * Q=2	-2.357	0.0949	1.721
	(3.315)	(7.396)	(3.301)
Post * Q=3	-4.896	17.45*	-2.410
	(3.182)	(8.878)	(3.320)
Post * Q=4	**-3.729**	**4.429**	**-9.350***
	(3.137)	(8.274)	(2.833)
Constant	-61.72	-201.0	-214.0**
	(75.632)	(289.053)	(107.282)
Baseline DV mean	61.80	61.07	64.16
Obs	4,263	1,326	3,606

Notes: This table reports the estimated coefficients and standard errors from estimating Eq1. The outcome data is from the National Survey of Occupation and Employment (ENOE) and covers the quarterly information between 2017 and 2019. Each regression controls for municipality, quarter-year, and state-by-quarter-year fixed effects and includes covariates for municipality population, household-level age, high school status, and presence of older siblings. For more details about the estimation, see Equation 1.

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

Table 7. Effects of PEI Program Termination on Number of Weekly Childcare Hours in Households by Type of Informal Employment

	Weekly Childcare Hours		
	(1) Informal Sector	(2) Paid Housekeeper	(3) Street vendor
Post * Q=2	-0.216	1.283	0.220
	(0.912)	(2.371)	(0.974)
Post * Q=3	-0.697	3.285	0.793
	(1.124)	(2.357)	(0.919)
Post * Q=4	-2.719***	3.164	-2.058**
	(1.035)	(2.601)	(0.949)
Constant	101.6***	-7.075	72.78***
	(27.371)	(75.558)	(24.860)
Baseline DV mean	27.82	22.90	27.36
Obs	49,965	5,783	39,722

Notes: This table reports the estimated coefficients and standard errors from estimating Eq1. The outcome data is from the National Survey of Occupation and Employment (ENOE) and covers the quarterly information between 2017 and 2019. Each regression controls for municipality, quarter-year, and state-by-quarter-year fixed effects and includes covariates for municipality population, household-level age, high school status, and presence of older siblings. For more details about the estimation, see Equation 1.
* $p<0.10$, ** $p<0.05$, *** $p<0.01$

Table 8. Effects of PEI Program Termination on Number of Weekly Childcare Hours in Households with a Female Sole Provider by Type of Informal Employment

	Weekly Childcare Hours		
	(1)	(2)	(3)
	Informal Sector	Paid Housekeeper	Street vendor
Post * Q=2	-2.302	7.906	-5.311
	(4.131)	(6.445)	(4.027)
Post * Q=3	0.275	4.985	1.879
	(3.201)	(6.983)	(2.706)
Post * Q=4	-0.261	11.08	-1.293
	(2.984)	(7.003)	(3.035)
Constant	29.80	-44.78	90.79
	(84.573)	(134.640)	(81.778)
Baseline DV mean	61.80	61.07	64.16
Obs	4,263	1,326	3,606