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Abstract: Unlike most developed countries, the U.S. lacks a federal paid sick leave policy. As a result, many workers must choose between losing earnings and attending to childcare responsibilities. To date, 17 states and the District of Columbia have adopted or announced paid sick leave mandates that provide up to seven days of paid leave per year that can be used for family responsibilities and healthcare. In this study, we estimate the effects of state paid sick leave mandates on parents' time spent providing childcare using time diaries from the 2004–2023 American Time Use Survey. Findings from difference-in-differences estimators suggest that post-mandate, parental time spent providing childcare increases by 5.8%. Effects are stronger among women with younger children. Overall, our findings suggest that paid sick leave mandates allow parents to better balance work and family responsibilities.

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1. Introduction

Balancing work and childcare responsibilities is challenging for working parents or caregivers ('parents') in many families (Howington, 2024). Raising children often requires parents to respond to unexpected events such as a child's illness, school closure, and so forth. Regular care for children such as healthcare appointments and educational events often occurs during normal work hours (Zoc Doc, 2013), creating conflict between the dual responsibilities of work and childcare. The Bureau of Labor Statistics (BLS) reports that the median daily earnings for full-time U.S. workers in 2024 was $228 (BLS, 2024). Losing these earnings to attend to childcare responsibilities is likely non-trivial for many families.

A possible policy response to moderate work-family balance challenges is mandating that employers provide paid sick leave ('PSL') to employees. PSL can allow parents to take financially protected time off work to attend to their children's needs. Advocates contend that parents with PSL access are better able to balance family and work (A Better Balance, 2025). For example, children whose parents have PSL access use more healthcare than do other children (Seixas & Macinko, 2020). While most developed countries have federal policies that mandate the provision of PSL to workers, the U.S. does not (Pichler & Ziebarth, 2024). Instead, the provision of PSL has been left mainly to firms to voluntarily provide, or not provide, PSL to their employees. However, there have been (unsuccessful) attempts to adopt a federal PSL policy, beginning with the introduction of the *Healthy Family Act* in 2005 (Pichler & Ziebarth, 2024) and most recently with the reintroduction of this Act in 2023 (Sanders & DeLauro, 2023).

The lack of a federal policy has led to a patchwork pattern of PSL among U.S. workers. In 2021, 27.5% of workers indicated that they did not have access to PSL (Rosa & Asfaw, 2023). There are disparities across workers in access, with more-educated workers being more likely to report PSL access than less-educated workers. For example, in the 2021 National Health Interview Survey, 66.3% of workers with a college degree report access to PSL, while 48.8% of those with less than a college degree report access (Rosa & Asfaw, 2023).

As of November 2024, 18 states (includes the District of Columbia [DC]), and several cities and counties have adopted or announced a PSL mandate (NPWF, 2023a). All policies are employer mandates and similar to the 2005 *Healthy Families Act* (Pichler & Ziebarth, 2024). PSL mandates provide employees financially protected time away from work that can be used for their own health needs and family responsibilities, including childcare (A Better Balance, 2025; NPWF, 2023a).

We explore the extent to which state PSL mandates allow families to provide care to their children, focusing on families with children under 18 years old in the household. We combine data on time spent providing care to children using the 2004–2023 American Time Use Survey (ATUS) with difference-in-differences (DID) methods that are robust to bias associated with dynamic and heterogeneous treatment effects from a staggered policy rollout. Given traditional sex differences in childcare responsibilities, we report results overall and for women and men separately. Further, because older and younger children have different care needs, we examine parents with and without a child under age six in the household. Finally, we separately consider

parents without a college degree who are less likely to have access to PSL benefits when their employers are not mandated to provide them (Rosa & Asfaw, 2023).

We have several findings. First, we show that post-PSL mandate, parents report working fewer minutes per day, which we view as a proxy for PSL taking and demonstrates a 'first-stage.' Second, we find that time spent on primary childcare increases by 5.8% and face time with children rises by 3.4%, but provision of 'secondary' childcare, time spent supervising children while doing other activities, is unchanged, except for an increase for fathers living with older children (12.0%). Third, examining several other major time-use categories, we document that parents of young children spend more time sleeping, while parents living with only older children spend less time sleeping; fathers have more leisure time when living with older children only, which corresponds with the increase in secondary childcare for them alone; and mothers have less leisure time when living with older children only.

2. U.S. paid sick leave

The U.S. does not have a permanent federal PSL mandate. However, the U.S. has had a federal **unpaid** leave policy in place since the passage of the 1993 *Family and Medical Leave Act*. This Act provides up to 12 workweeks of unpaid leave for eligible workers, but is available for serious illnesses only and cannot be used for short-term childcare responsibilities, e.g., taking a child to a healthcare appointment. During the COVID-19 pandemic, the federal government enacted the *Families First Coronavirus Response Act* to provide up to two weeks of paid leave at 100% wage replacement from April to December 2020 for specific workers ('nonessential workers')

for own COVID-19-related health and two-thirds wage replacement for family care responsibilities (Andersen et al., 2023).

Several states and localities have adopted PSL policies, and we examine the impacts of the state policies on time spent caring for children among families. Appendix Figure 1A reports the geographic distribution of the state policies across U.S. states. Appendix Figure 1B shows the rollout of PSL policies over time. Appendix Table 1 lists states that adopt or announce a PSL mandate by November 2024 and the month and year in which the mandate became effective. For completeness, we also list the states that are included in the comparison group (i.e., states that do not adopt or announce a PSL mandate by November 2024). As we will describe in Section 3.1, we exclude seven small states from the analysis sample, three of which adopt PSL mandates. Appendix Table 1 also reports information on these states.

We rely on legal coding provided by the NPWF (2023a) and A Better Balance (2025). The PSL mandates we study offer up to seven days of PSL annually (with 100% wage replacement) and require limited documentation from employees utilizing leave. PSL can be used for one's own health needs and to provide care for dependents. While the allowable dependents vary to some extent across states, all mandates include employees' children. Some mandates also require employers to offer unpaid sick leave as well. Though some states allow exemptions (e.g., small employers), prior research (described below) demonstrates that these mandates meaningfully confer PSL access to many employees, including to those that work parttime and in small firms. Simulations suggest that mandates adopted by the end of 2023 provide PSL to over 21M employees for the first time (NPWF, 2023a), with the full scope likely larger as

many employees who had access to limited PSL pre-mandate gained more generous coverage as their employers increased benefits to satisfy mandate requirements. See a review by Pichler and Ziebarth (2024) for more details on U.S. PSL mandates.

Given our research objective, an important question to ask is the extent to which state PSL mandates confer benefits to employees that can be used for childcare purposes. Although state PSL mandate statutes do not necessarily provide explicit mention of childcare, the language is sufficiently broad that employees and employers could reasonably interpret that childcare is an eligible use as the statutes typically state that leave can be used for child health. For example, in Colorado (which implemented a PSL mandate in January 2021), eligible activities include:

'Care of a family member who needs medical diagnoses, care, or treatment of a mental or physical illness, injury, or health condition.'

'…an employee's need to care for a child whose school or place of care has been closed by an order of a public official…'

Employees generally do not need to provide specific details on the reasons for utilizing PSL which may further facilitate parental use of mandated PSL for childcare purposes. As pointed out by Maclean et al. (2025), employer monitoring of PSL use in the U.S. is relatively light and this limited monitoring likely also facilitates employees to use PSL for childcare.[1] Advocates for PSL policies note that parents do use these benefits for childcare purposes (NPWF, 2023b). Moreover, Guo and Peng (2024) and Arora and Wolf (2024) find that mandated PSL is used for eldercare, and Byker et al.

[1] Patient health information in the U.S. is tightly protected under the *Health Insurance Portability and Accountability Act* of 1996. This Act curtails questions that employers can ask employees about PSL use as employees are generally protected against disclosing health information.

(2023) show that self-reported family care increases, these activities–like childcare–are not explicitly codified within all state PSL mandates.

There is a growing literature that investigates the impact of PSL mandates. Maclean et al. (2025) use the 2009–2022 National Compensation Survey to show that adoption of a state PSL mandate increases the probability that private employers offer PSL to employees by 32% and that annual use of PSL by workers increases by 22%. Use of unpaid sick leave more than doubles post-mandate (134%), though pre-mandate use of unpaid sick leave is very low (less than one hour per year). Other studies report complementary increases in employee self-reported PSL access (Ahn & Yelowitz, 2016; Callison & Pesko, 2022).

A critique of mandated PSL is that these policies will impose financial hardship on businesses (Vander Weerdt et al., 2023). However, Maclean et al. (2025) show that PSL mandates are relatively inexpensive: post-mandate PSL costs increase by roughly six cents per employee-hour worked. Miller (2022) documents no change in business bankruptcies post-mandate, but personal bankruptcies decline, suggesting mandates provide financial protection for workers without harming businesses. Slopen (2024) finds that state PSL adoption improves women's wages and earnings, and reduces poverty rates. Maclean, Popovici, et al. (2023) find increases in employment among women of child-bearing age (16–44 years) as well. Studies find no evidence that employment rates decline or that employers attempt to mitigate the now higher PSL costs by reducing wages or other benefits, while some suggest an **increase** in these metrics (Maclean et al., 2025; Maclean, Popovici, et al., 2023; Pichler & Ziebarth, 2017).

Research shows that mandated PSL increases healthcare use such as vaccinations, prescriptions, screenings, and contraception (Callison et al., 2023; Maclean et al., 2024; Maclean, Popovici, et al., 2023)—though Guo and Peng (2024) find inconclusive evidence on self-reported preventive care; reduces unnecessary healthcare use as measured by emergency department episodes (Ma et al., 2022); and improves health and decreases infectious disease spread (Pichler et al., 2021; Pichler & Ziebarth, 2017; Slopen, 2023; Stearns & White, 2018; Wolf et al., 2022). There is no evidence to date that PSL mandates lead to moral hazard behaviors—as measured by excessive drinking—among adults (Guo & Peng, 2024). In studies complementary to ours, Arora and Wolf (2024) show that PSL mandates increase eldercare using the Health and Retirement Study and Byker et al. (2023) find that self-reported family care increases post-mandate in the Current Population Survey (CPS).

To the best of our knowledge, just two studies use the ATUS to study PSL mandate effects. Using ATUS data 2011–2019, Guo and Peng (2024) find no effect of state PSL mandates on the probability that private sector workers aged 18–64 provide care to others, including primary childcare of all children; however, they report increases in the probability of caring for other adults among those working in construction and leisure and hospitality industries, the industries least likely to initially have PSL access. Bagalb (2023) tests whether PSL mandates influence youth behaviors in the Youth Risk Behavior Survey. Using the 2016–2021 ATUS in an auxiliary analysis, Bagalb shows that adults aged 16–85 spend more time caring for children post-mandate.

Our study complements this existing work in several ways. First, our primary objective is to study the impact of PSL mandates on a proxy for the work-life balance of

families, i.e., the provision of childcare, and in particular how findings differ by sex, given gendered childcare norms in the U.S., and also to examine families most likely to gain access to PSL post-mandate—those with lower levels of education (Rosa & Asfaw, 2023). Second, we consider primary and secondary childcare, and face time with children. When studying childcare, especially when using the ATUS due to the way time-use data are recorded, looking beyond primary childcare is crucial (Allard et al., 2007; Folbre, 2022; Stewart & Allard, 2016). As children age, the types of activities that parents engage in with their children change and are also reported in the time diaries differently (Stewart, 2010). For example, when children are young, an activity such as 'playing a game' might be recorded as primary childcare but when children are older, 'playing a game' will be reported as secondary childcare. Furthermore, an activity such as preparing dinner will be reported as a primary activity in the ATUS, but the parent might also be helping their children with homework or supervising play as a secondary activity. Face time with children captures both primary and some secondary childcare activities, those done in the same room, and time spent with teenagers. Secondary childcare is only captured in the ATUS for time with children under the age of 13. Considering childcare more broadly is important as both active (i.e., primary) and passive (i.e., secondary) childcare have been shown to be important for child development (Caetano et al., 2019). Third, we focus on the amount of childcare, which proves to be empirically important in the PSL context, while Guo and Peng (2024) only consider the extensive margin of care. Most parents with minor children in the household in the age group examined by Guo and Peng (16–85 years) provide at least some primary childcare daily (53%) and the share is higher among adults 22–59 years

that we consider (64%), thus the extensive margin may miss developmentally important care.[2] Indeed, we show increases in the **amount** of childcare provided by parents post-mandate that are missed when focusing on the extensive margin only.

Fourth, because children of different ages have heterogeneous care needs (Drago, 2009; Zick & Bryant, 1996), we stratify our analysis by age of the youngest child to capture distinct periods of development—less than six years and 6–17 years (Currie & Almond, 2011). Finally, we consider a longer time-period than the other studies in this literature (2004–2023), which allows us to exploit variation from more states with PSL mandates in our DID analyses and leverage several years of pre-treatment data for all adopting states when testing the parallel trends assumption.[3]

3. Data sources, outcomes, and summary statistics

3.1. American Time Use Survey

[2] Authors' calculation from the primary childcare variable (IPUMS variable BLS_CAREHH_KID) among adults 16–85 and 22–59 years of age with children <18 years old in the household in the 2004–2023 ATUS. Data are weighted by ATUS final survey weights.

[3] There are key differences in both the research question and empirical approach between our work and that of Guo and Peng (2024), which is arguably closer to our study than Bagalb (2023). Our objective is to study the extent to which state PSL mandates impact the amount of time parents with minor children in the household allocate to childcare, both primary and secondary childcare, and thus the ability of mandated PSL to moderate challenges parents face in terms of balancing work and family responsibilities. Guo and Peng (2024) focus on a broad set of outcomes: healthcare use, risky behaviors, elder care, and childcare among persons ages 16–18 years employed in industries with low-levels of access to PSL. Our narrower age range arguably allows us to better isolate the families that we seek to study, for example, older people may be more likely to be grandparents than parents and, even if they reside with minor children, maybe less likely to provide childcare than younger adults. In terms of childcare outcomes, Guo and Peng (2024) examine the extensive margin of primary childcare only. In terms of empirical approach, the two studies use different study periods, modestly different measures of primary childcare provision, definitions of both the treatment and comparison groups, estimators, control variables, and so forth. In sum, the two studies address complementary questions and take somewhat different approaches, but together they contribute to our understanding of the impacts of state PSL mandates on childcare provision. In unreported analyses that are available on request, we have replicated (for primary childcare) the findings of Guo and Peng (2024) quite closely, though not identically.

The ATUS is a nationally representative dataset of individuals sampled from households completing their eighth month of the CPS. One respondent is randomly selected per CPS household. Since 2003, interviews have been conducted by telephone almost every day of the year except for major holidays and a seven-week closure of Census Bureau call centers early in the COVID-19 pandemic (March 18th through May 9th of 2020). Respondents are asked to sequentially report their activities occurring over a 24-hour period beginning at 4 a.m. the day before the interview ('diary day'). Half of the diaries are collected about a weekday and half about a weekend day. Estimates of time spent on activities from time diaries are considered to be more accurate than estimates from stylized survey questions (Juster, 1985).

Respondents are asked to report their primary activity. At the end of the time diary, respondents are asked to report activities during which children under 13 are 'in your care.' In some years, respondents also report secondary eating and drinking activities.[4] For most activities, respondents are asked who was in the room with them or accompanied them during an activity occurring while away from home and where the activity took place or the type of transit for travel activities. 'Who' and 'where' information was not collected for time spent sleeping, grooming, on personal/private activities, and when the respondent did not remember what they did or refused to answer for an activity. Before 2010, 'who' information was also not collected while working.

We extract harmonized ATUS data from IPUMS (Flood et al., 2023). Our analysis sample includes adults 22–59 years old living in households with minor children

[4] Secondary eating and drinking information is collected in the Eating and Health Module (2006–2008, 2014–2016, and 2022–2023).

interviewed 2004–2023.[5] The main sample includes 78,080 persons (45,693 women and 32,387 men). We perform analyses stratified by the age of the youngest child (ages 0–5 vs. 6–17). We also examine subsamples of adults with minor children who do not have a college degree, because they may be more likely to be working at jobs not providing PSL when employers are not mandated to do so (Rosa & Asfaw, 2023). We have regressed the probability of being in our sample on PSL mandates using Equations (1) and (2) and find no evidence that mandate passage impacts this probability ($\hat{\delta}$= 0.00, $\widehat{SE}$=0.00).

Our main analyses are based on **all** diary days, but in robustness checks, we consider the impacts on weekdays and weekend days separately, because people may reallocate their time across days of the week to deal with family responsibilities. We do not exclude the nonemployed or respondents based on industry of employment, as earlier work shows that employment may rise post-mandate (Section 2). However, in robustness checks, we show results excluding the nonemployed and focusing on those working in industries with low PSL access as defined by Guo and Peng (2024).

Due to falling response rates, the ATUS sample size declines over our study period. In 2004, 5,234 adults 22–59 years of age with minor children in the household appear in the ATUS and by 2023, this number is 1,957. These numbers suggest that our target sample declines by 62.6% from the first to the last year of our study period. As a result, some states have very low coverage in some years. Given that our effective unit of observation is the state, we exclude seven states that have less than five observations among adults 22–59 years with minor children in the household in at least

[5] 2003 is excluded as secondary childcare for household children (one of our outcomes) is not available.

one year, these states account for just 1.8% (n=1,404) of the adults 22–59 years with minor children in the household. This group of states includes three states that adopt or announce a PSL mandate by November 2024 (Alaska, DC, and Vermont) and four states that do not (Delaware, Hawaii, Montana, and Wyoming). However, as we will show in Section 5.5, our main results are not different if we include these states.

In addition to time diaries, there is a main interview in the ATUS that collects demographic and labor market information for each respondent, and in some years, there are special supplements asking additional questions on a focused topic. In three years (2011, 2017, and 2018), the ATUS includes a 'leave module' that collects information on both paid and unpaid leave access and utilization, which we use to provide baseline levels of PSL coverage and leave use.

3.2. Time use outcomes

We use three variables to characterize time spent caring for household children. Appendix Table 3 provides a description of activities included in our time-use variables.

Our first measure is minutes spent on primary childcare defined as an activity that includes time spent on the direct care of children, including physical care, child-related healthcare, reading to children, playing with children, educational activities, talking with children, etc. In supplementary analyses, we separate overall primary childcare into three types of care: routine and health, education, and other.

Our second measure is 'face time with children.' This variable is constructed by summing time spent on activities when household children under age 18 are present during the activity using information from 'who' variables. The respondent is doing primary childcare or some other activity and is in the same room as the child when at

home or in the company of a child while away from home. We exclude paid work time from face time with children, because respondents are not asked who they spent time with while working pre-2010. Excluding work time from this childcare metric allows us to consistently measure the variable over time and separate changes in paid work time from changes in childcare time.

Our final measure is secondary childcare, which is recorded in diaries for time respondents spend doing an activity other than primary childcare for which they also indicate that a household child under age 13 is in their care (we exclude paid work). For this measure, we only include households where the youngest child is less than 13 years. Children do not need to be in the same room as the respondent during the activity but could be in another room in the house under the respondent's supervision.

To understand the 'first stage' effects of PSL mandates, we examine the impact of these mandates on work time. Work time includes minutes of work on main and other jobs, work-related activities, travel related to work-related activities, and commuting time. We include commuting time in work time because this is time devoted to paid work that may be saved when using PSL. Pabilonia and Vernon (2022) find that those working from home on their diary day save an hour by not commuting. Results are qualitatively similar if we exclude commuting time. In supplementary analyses, we also examine other major time-use variables. In particular, we consider household production (e.g., cleaning), sleep, and leisure (e.g., watching television), Appendix Table 3 provides specific activity codes for these metrics as well.

3.3. Summary statistics

We first use the ATUS leave module to examine access to and use of PSL among adults 22–59 years old with minor children in the household. This analysis allows us to shed some descriptive light on access to and use of PSL across different groups of parents, in particular, those without a college degree who are less likely to have access to PSL (Rosa & Asfaw, 2023). In the ATUS leave module, respondents are asked about paid leave and paid leave that can be used for various activities, but survey questions do not allow us to isolate PSL from other types of paid leave such as PTO and paid medical and family leave, and respondents may also include workers compensation, short-term disability, and long-term disability.[6] Thus, information in the ATUS leave module likely overestimates true PSL access. Only current wage and salary workers are included in the leave module.

Results are reported in Tables 1A (all wage and salary workers) and 1B (wage and salary workers with less than a college degree). We report results for women and men, women only, and men only in each table. 68% of wage and salary workers have some form of paid leave, with lower shares of women reporting this benefit (64%) than men (73%). Shares are slightly lower among those without a college degree relative to the overall sample: 65% of adults, 62% of women, and 69% of men. 58% report access to paid leave to care for family members, while 53% of those with no college degree report such access. Even fewer report that they could take paid leave for childcare purposes (44% overall and 40% among the no college degree group). In terms of

[6] For example, the question wording for any paid leave is as follows: '[Thinking about the job where you worked the most hours last week] Do you receive paid leave on your job?' Further, the question about paid leave that can be used for care of a family members is as follows: 'I'm going to read you a list of reasons why you might have to miss work. For each reason, please tell me if you are able to take paid leave in your [fill:current/main] job. Illness or medical care of another family member.'

unpaid leave, 85% (79%), 86% (81%), and 83% (77%) of wage and salary workers, women, and men report unpaid leave (unpaid leave for care of a family member). Shares are similar, though slightly lower, among those without a college degree. Unpaid leave for childcare is reported by 70%, 70%, and 69% of wage and salary workers, women, and men. Again, the shares are similar, though modestly lower, among respondents without a college degree.

Though the leave module includes information on leave use in the past seven days, the questions do not allow us to separately consider paid and unpaid leave or the type of leave used, thus we focus on overall leave use. Among adults, regardless of educational attainment, 6% report needing, but not using, leave in the past seven days, with 8% of women and 4% of men reporting this outcome. Shares are identical (out to the two decimal places we report) for those without a college degree. 21% of all wage and salary workers and 20% of wage and salary workers without a college degree report using leave in the past seven days and the average number of hours used is 2.62 and 2.42 respectively. Among all wage and salary workers, women are slightly more likely to use leave in the past seven days than are men (22% vs. 21%) and report more hours of leave used (2.79 vs. 2.41). Differences in leave use between men and women are slightly smaller among wage and salary workers without a college degree.

Appendix Figure 2 reports childcare trends for states that do and do not adopt/announce a state PSL mandate by November 2024. The data are somewhat noisy given the smaller sample sizes of the ATUS and we use two-year bins. Beginning in 2012/2013 (when Connecticut adopts a mandate), the two trends begin to depart for primary childcare and face time with children. These findings are somewhat obscured in

2020, with the onset of the COVID-19 pandemic and the temporary federal PSL policy. Trends in secondary childcare are inconclusive.

Appendix Table 4 reports summary statistics for the full sample, PSL adopting states (pre-mandate), and states that do not adopt a PSL mandate. Time spent on primary and secondary childcare and face time with children are similar across states that do and do not adopt PSL mandates. State-level and individual-level characteristics also are comparable across the two groups.

4. Methods

PSL mandates are adopted at different points in time across states. Recent econometric literature (Goodman-Bacon, 2021) suggests that this setting can create bias when using two-way fixed-effects ('TWFE') regressions in application of DID methods. TWFE regressions recover a weighted average of the average treatment effect (ATT) using all possible two-by-two DID comparisons in the data. If there are dynamics in treatment effects, then using earlier treated states as a comparison group for later treated states can lead to bias—i.e., 'forbidden' comparisons (Borusyak et al., 2025). For efficiency purposes, TWFE variance weights the data such that treated units in which the policy variable 'turns on' in the middle of the panel are upweighted in the ATT estimate. Thus, if there is heterogeneity in treatment effects across treated states, then TWFE may return a poor estimate of the ATT.

Given these concerns, we use a two-step DID imputation method proposed by Gardner (2022) that is robust to such sources of bias (Butts & Gardner, 2022). In the first step, the untreated or not-yet-treated states are used to impute counterfactual

outcomes (i.e., $Y_{i,s,t}(0)$). In the second step, using treated and untreated outcomes, the procedure constructs an estimate of the ATT by contrasting treated outcomes and (imputed) untreated outcomes (i.e., $Y_{i,s,t}(1) - \hat{Y}_{i,s,t}(0)$). Standard errors account for state clustering and counterfactual imputation.

Equations (1) and (2) outline our estimating equations for the first and second steps of the Gardner (2022) procedure:

(1) $Y_{i,s,t}(0) = \propto_s + \gamma_t + Z_{s,t}\beta_1 + X_{i,s,t}\beta_2 + \varepsilon_{i,s,t}$

(2) $Y_{i,s,t}(1) - \hat{Y}_{i,s,t}(0) = \delta PSL_{s,t-24} + \mu_{i,s,t}$

where $Y_{i,s,t}(1)$ and $\hat{Y}_{i,s,t}(0)$ are (realized) and (predicted) time use in the treated and untreated states for individual *i* in state *s* at time *t* (month-year), $PSL_{s,t-24}$ is an indicator for a state PSL mandate lagged 24 months or two years (to allow workers to learn about an accrue benefits, though we will show in Section 5.5 that results are similar using different lag structures); $Z_{s,t}$ is a vector of state-level policies (paid medical and family leave and paid time off ['PTO'] laws sourced from the NPWF (NPWF, 2023a, 2023b)), poverty rate (UKCPR, 2023), and population (UKCPR, 2023); $X_{i,s,t}$ is a vector of individual-level characteristics; $\propto_s$ and γ_t are vectors of state and time (month-year) fixed-effects; and $\varepsilon_{i,s,t}$ and $\mu_{i,s,t}$ are the error terms. Individual-level characteristics include sex (male and female, with male as the omitted category), a quadratic in age (in years), race (White and non-White, with White as the omitted category), ethnicity (Hispanic and non-Hispanic, with non-Hispanic as the omitted category), marital status (married and not married, with married as the omitted category), cohabitation status (cohabitor and non-cohabitor, with cohabitor as the omitted category), education (less than high school, high school, some college, college degree, and graduate degree, with

less than high school as the omitted category), number of children in the household, age of youngest child (less than one year, 1–5 years, and 6–17 years, with less than one year as the omitted category), and urbanicity (resides in a metro area and resides outside a metro area, with resides in a metro area as the omitted category). Finally, δ is our coefficient of interest and captures the effect of state PSL mandates on time use.

The Gardner approach uses least squares regression. For all analyses, we apply ATUS final weights that account for oversampling of weekend days. We merge PSL mandates onto the ATUS using month and year. In our main analyses, we analyze the effects of state-wide PSL mandate on time-use outcomes.

As our primary specification, we use the Gardner (2022) procedure. However, there are a number of newer DID estimators utilized within the economics literature in settings where the treatment regime follows a staggered rollout across units. We next discuss our rationale for selecting the Gardner (2022) procedure. Gardner (2022) offers several attractive features for our setting. The procedure can accommodate both micro-data and time-varying controls. As discussed by Guo and Peng (2024), imputation estimators—such as Gardner (2022)—seem more suitable for individual-level repeated cross-section data than other methods such as Callaway and Sant'Anna (2021) that generally require that the treatment is on the same level as the units of observation in the data. When using individual-level repeated cross-section, users of Callaway and Sant'Anna (2021) can leave the data at the micro-level, but the procedure aggregates the data internally to the treatment unit-time level to estimate the ATT. In terms of time-varying covariates, which we believe to be important in our context, the Callaway and Sant'Anna (2021) approach matches treated and untreated units utilizing baseline

values for included covariates, rather than permitting adjustment for these variables as they fluctuate over time. Further, Gardner (2022) is based on regression, which is a familiar concept to most economists, and performs well—relative to other new DID estimators—in terms of inference (Gardner et al., 2024) and is not vulnerable to bias attributable to correlations between treatment effect heterogeneity and included covariates (Powell, 2021). Finally, Gardner (2022) is computationally efficient in terms of run-time. For these reasons, we use the Gardner (2022) approach in our main specification. However, we also report results based on other estimators utilized within the literature, including Borusyak et al. (2025), Callaway and Sant'Anna (2021), Wooldridge (2023), stacked difference-in-differences (Cengiz et al., 2019), and TWFE in robustness checking (see Section 5.5).

We choose not to emphasize results using the substate level mandates (see Section 2) for two reasons. First, the relevant geography for PSL mandates is the work location, not residence, but the ATUS only includes location of residence. Using the 2019 American Community Survey (Ruggles et al., 2024), we find that 97% of employed working-age adults live and work in the same state, but just 77% live and work in the same county, suggesting that there is less measurement error in linking PSL mandates to the survey data with state (vs. substate) mandates. Second, although the ATUS includes several variables that can be used to link some substate information to the data, these variables are incomplete (e.g., smaller counties are suppressed) and not sufficiently fine enough to allow accurate isolation of all the localities in which substate mandates have been adopted (Van Riper et al., 2021). However, we will show results

that incorporate substate mandates (to the extent possible in the ATUS) in robustness checks (see Section 5.5).

DID methods rely on the parallel trends assumption. That is, in our setting, post-PSL mandate adoption, parents residing in states that do and do not adopt PSL mandates would have followed the same trends in childcare outcomes absent the mandate. This assumption is untestable as counterfactual outcomes for mandate adopting states are not observed following adoption of the mandate. To provide suggestive evidence on the ability of our data to satisfy this assumption, we conduct an event-study. In particular, we decompose the binary indicator variable representing the interaction between treatment status and the post-period into a series of indicators capturing interactions between time-to-event and being a state that adopts or announces a PSL mandate by November 2024.

While ideally, we would include one-year leads and lags in the event-study, a limitation of the ATUS is that the sample sizes are somewhat small and are declining in over time, that is as the policies we study rollout across states. This data feature shapes how we specify the event-study. In particular, we construct indicators from seven years pre-mandate through seven years post-mandate and use one-year time-to-event bins in the pre-event period and two-year bins in the post-event period. Appendix Table 2 reports the number of treated observations in each single year-to-event period. We have reasonable coverage in the pre-period but sample sizes become much smaller in the post-period, which leads us to rely on two-year bins for policy lags in the event-study. We impose endpoint restrictions so that periods more than seven years pre-event are coded one for the -7 indicator and periods more than seven years post-event are

coded one for the +6/+7 indicator. States that adopt a PSL mandate after 2023 are coded as being in their pre-treatment period, for example, Minnesota adopts a PSL mandate in January 2024, thus we code this state as -1 in 2023. The coefficient estimates in the event-study reflect the average difference in outcomes between treated and untreated observations in each time-to-event period.

5. Results

5.1. Time spent working

Before proceeding to our main analyses of time spent on childcare, we first explore the impact of state PSL mandates on time spent working as a `first-stage.' We view this variable as a proxy for PSL **use**, but others (Maclean, Popovici, et al., 2023; Slopen, 2024) find that employment also rises for women in particular after PSL mandates are introduced and our results point to this possibility as well. If we are to find increases in childcare post-mandate, then work time would need to decrease.

Figure 1 reports results from an event-study that allows us to explore the possibility that the parallel trends assumption holds in our sample. The coefficient estimates on the policy leads are relatively small in magnitude and, while the ATUS data are somewhat noisy due to smaller sample sizes, reveal no systematic differences across PSL and non-PSL mandate adopting states. Table 2 reports results from our main DID specifications. Columns 1, 2, and 3 list results for women and men, women only, and men only. We also stratify the sample based on the age of the youngest child in the household (no restriction, youngest child under six years old, and youngest child 6–17 years old). Finally, we estimate regressions for parents without a college degree.

In the full sample (Panel A), we observe that post-mandate, all adults, women, and men with children in the household work 14.9, 8.5, and 18.4 fewer minutes on the average day (though the coefficient estimate for women is imprecise at conventional levels of statistical significance). Figure 1 suggests that effect sizes may increase over time, potentially as parents learn about and accrue PSL benefits. Comparing these coefficient estimates to the mean value in PSL adopting states pre-mandate (we use this comparison in all conversions from absolute to relative effects) implies declines of 5.6%, 4.2%, and 5.4%. Effect sizes are similar among parents without a college degree (Panel D): minutes spent working decline by 13.9 (5.5%), 5.4 (2.9%), and 18.8 (5.7%) among all adults, women, and men.

When we consider the age of the youngest child, we observe some sex differences (Panels B and C). Among men, declines in minutes working are larger when the youngest child is less than six years. Among women, minutes working decline when the youngest child is less than six years, but increase when the youngest child is 6–17, suggesting positive employment effects outweighing leave use for the latter group. As discussed in Section 2, both Slopen (2024) and Maclean, Popovici, et al. (2023) find that women's employment increases following adoption of a state PSL mandate. We might expect that women with school-age children are disproportionately likely to take-up employment post-mandate as school-age children require less care than younger children. For the no college degree group, we find that among women (men), declines in minutes working are larger when the youngest child is less than six years old (6–17). These findings for the no college degree group are consistent with gendered childcare

patterns, with women doing more of the routine physical childcare when children are young and men spending more time with children when they are older.

Appendix Table 5 mirrors Table 2, but the outcome is an indicator for **any** work on the diary day. We observe declines in the probability of any work for women when the youngest child is less than six years, which suggests that mothers take off more full workdays post-mandate. However, women whose youngest child is 6–17 and men whose youngest child is less than six years are more likely to be working, suggesting increases in employment post-mandate for these groups.

5.2. Time spent on childcare and associated activities

Table 3 shows our main results, the effects of a PSL mandate on minutes spent on childcare per average day. Results from event-studies for our main outcomes are reported in Figure 2 and reveal no systematic differences in trends for states that will and will not eventually adopt a PSL mandate in the pre-treatment period. With this evidence in hand, we turn to DID results reported in Table 3. For women and men combined (Panel A), we find that a PSL mandate leads them to spend 4.5 minutes more on primary childcare and 10.4 minutes more face time with children, but that secondary childcare for children under age 13 does not change. Relative to the pre-treatment means, these coefficient estimates imply a 5.8% increase in primary childcare and a 3.4% increase in face time with children. PSL mandate effects on primary childcare are driven entirely by changes for those with a child under age six, who increase their primary childcare by 13.1 minutes (11.4%) (Panel B). The effects of a PSL mandate on face time with children are larger (in absolute magnitude) for families with younger

children (13.9 minutes vs. 7.7 minutes), though relative effect sizes (given different baselines) are more similar (3.6% vs. 3.2%).

Estimating effects separately by sex, we further show that the effects of a PSL mandate on primary childcare are driven entirely by women with children under age six. Turning to face time with children, we find that women spend more face time with children when there are younger children in the household (9.9 minutes), while men spend more face time with children when there are only school-aged children in the household (20.6 minutes). This difference is not surprising given the larger difference in care time between men and women when their children are young. Pre-treatment, the women-men gap in mean face time with children when children are young is 159 minutes per day, but only 76 minutes per day when all children are school-aged. The pre-treatment women-men gap in mean primary childcare is larger when there are young children in the household (64 minutes per day versus 25 minutes per day). We also find that men spend more time on secondary childcare post-mandate (28.5 minutes or 12.0%) when their children are school-aged (Panel I).

These results suggest that when mothers have access to PSL and need to take time off work to stay home with sick children, mothers provide more direct care on average to meet their children's needs, but secondary supervision does not change for them because this is not the type of care required in these instances. However, for men, face time and secondary time with school-aged children may overlap more, and men who stay home with their school-aged children (when they are ill, or schools are closed) are not doing more direct childcare but instead more supervisory care while participating in leisure activities (see below) because of the different development needs of these

older children. Thus, the results indicate some sex differences in the effects of a PSL mandate on the types of care provided, with women playing a more traditional role by providing direct care for younger children and men playing more of a supervisory role for older children. When we restrict the sample to those without a college degree (Appendix Table 6), we find no effects on childcare in the all women and men sample but there are counteracting effects by age of youngest child. For women and men with a youngest child under age six, we find a similar effect for primary childcare, but we find no effect on face time with children and large negative effect on secondary childcare (women and men with no college degree could be substituting primary and secondary childcare time). For women and men with school-aged children, we find that they decrease primary childcare time but increase secondary childcare by more than double the number of minutes (8.3 minutes per day versus 20.2 minutes per day).

In Table 4, we break total primary childcare into routine and health (e.g., bathing children and healthcare use), educational (e.g., helping children with schoolwork), and other (e.g., reading to children) care. Figure 3 reports an event-study for these outcomes, we again—though the ATUS data are somewhat noisy—observe no evidence of systematic difference in trends for these outcomes between states that do and do not adopt a PSL mandate pre-treatment. Returning to our DID estimates (Table 4), for all women and men, the increase in total primary childcare is driven mainly by an increase in other care. While coefficient estimates do not always rise to conventional levels of statistical significance, all three types of care increase post-mandate in most groups of parents, though the relative effects are larger for educational and other care.

Appendix Table 7 reports complementary DID results for parents without a college degree; patterns are similar.

Figure 4 and Table 5 show event-study and DID results for several other major time-use outcomes. We examine time spent on household activities (which include time spent on housework and preparing meals), sleep, and leisure activities (e.g., watching television).[7] These outcomes may be substitutes or complements to childcare. Figure 4 offers suggestive evidence that our data can satisfy the parallel trends assumption: pre-treatment trends in these outcomes appear to move broadly in tandem for adopting and non-adopting states. In the DID specification, for all women and men, there are no effects of PSL mandates on these activities. However, there are some effects by sex and age of the youngest child. Looking first at household activities, we find that mothers spend more time on household activities post-mandate when they have school-aged children (7.9 minutes). Mothers who stay home with school-aged children may spend more time cooking food and cleaning up after these children who would otherwise be at school and not require this type of care. Turning to sleep, we find that post-mandate, women and men spend more time sleeping if they live with a young child but less time sleeping if they live with school-aged children only (5.2 minutes more vs. 9.8 fewer minutes). This change might be because young children sleep longer than older children, giving their parents a reprieve to also sleep longer. Looking at leisure activities, post-PSL mandate, leisure time decreases by 9.8 minutes or 4.5% among women, which is concentrated among women living with school-aged children (8.8%). For men, leisure time increases by 7.8%, which is concentrated among men living with school-

[7] Reid (1934) wrote of maternal responsibility: “Even though she may not be on active duty, evidence of her labor is about her. She is continually on call. Much so-called leisure has a ‘string attached’.” (p. 319).

aged children (11.5%) who require less physical care but still require supervision when home sick. Men's increase in leisure is almost identical to their increase in secondary time, suggesting that they are supervising their children while participating in leisure activities. We also examine effects on those without a college degree (Appendix Table 8). The magnitudes of the effects increase in many instances. For example, men living with school-aged children increase their leisure time by 18.8%, and we find that this increase in leisure is offset by decreases in time spent on household activities (14.4%) and sleep (-2.7%).

5.4. Discussion of magnitudes

Because we consider a downstream outcome, an important question to ask is whether our effect sizes are reasonable given prior literature and the amount of leave codified in PSL mandates? Relative to Maclean et al. (2025), we find larger first-stage effects of state PSL mandates on work time. Our effects for work time are driven by weekdays (see Appendix Figure 3), which we consider in the calculations that follow. Our reduction in weekday work time post-mandate of 16.8 minutes per average weekday translates into nearly 73 fewer hours worked each year; Maclean et al. (2025), on the other hand, find that workers in newly-covered jobs in the National Compensation Survey take an extra 20 hours of leave (paid and unpaid) per year post-mandate in those jobs.[8]

There are several potential explanations for our finding larger effects. First, our measure of work time is much broader than the metric considered by Maclean et al. (2025), who measure only work-time hours 'lost' to paid and unpaid sick leave use, and

[8] See Tables 2 and 3 of Maclean et al. (2025). The unit of observation in the National Compensation Survey is a job in an establishment. The job is selected probabilistically within establishments.

the authors consider jobs and not people who hold jobs. Our measure of work time (as described in Section 3.2) includes 1) minutes of work on main and other jobs, 2) work-related activities, 3) travel related to work-related activities, and 4) commuting time. These additional work-related activities account for a non-trivial amount of time, for example, Pabilonia and Vernon (2022) find that workers spend roughly one hour per day on commuting alone. Mechanically, we would expect that when we include auxiliary time required to work, the estimated effects would be larger. Second, some people work at more than one job, nearly one in ten members of our analysis sample report more than one job, and such workers could gain access to PSL at all jobs. Third parents (in particular mothers) may be more likely to work in jobs that are disproportionately affected by PSL mandates, for example part-time, retail, or small-firm jobs (Maclean et al., 2025).[9] Fourth, we include one additional year of data in the post-period (2023), and our event-studies show that longer-run effects in work time (see Figure 1), some of which would not be captured by Maclean et al. (2025), are important.[10] Fifth, the ATUS sample size is small, and as a result our confidence intervals are somewhat wide. If we are to consider the upper end of the 90% confidence interval, the annual reduction in work hours would be 10.6 hours post-mandate, which is closer to (and indeed smaller than) the findings reported in Maclean et al. (2025).

In the second-stage, we find that the increase in face time with children of 10.4 minutes per day (and no change in household, sleep, or leisure) is less than the first-

[9] In the ATUS, among adults 22–59, 16.7% of those with minor children in the household work part-time and 14.4% of those without minor children in the household work part-time.
[10] We technically add more than one year of data relative to Maclean et al (2025). Maclean et al (2025) construct their 2022 utilization measure based on the first quarter of 2022 and the last three quarters of 2021 due to the nature in which PSL use is measures in the National Compensation Survey.

stage work time results. We focus on face time as 1) primary childcare is a subset of activities included in face time with children and 2) we observe no change in secondary childcare in the full sample. Moreover, using the increase in face time with children—our most comprehensive measure of childcare—we find an increase of 45 hours per year, while the mandates allow workers to earn up to 56 hours per year of paid leave. When parents take time off for childcare responsibilities (e.g., caring for a sick child), the additional time that the parent may allocate to the child's need can extend beyond lost work time. For example, a child who is sick may need to take medicines and require comforting in the evening, which may not align with the parent's lost work time. Thus, the increase in time on these activities seems reasonable.

5.5. Robustness and extensions

We test the robustness of our main finding (the effect of state PSL mandates on time spent on primary childcare for men and women combined) to different specifications and samples. Results, while not identical, are generally robust (Appendix Figure 4). First, we change the variables included our regression by separately: removing time-varying state and individual characteristics, replacing time fixed-effects with region-by-time fixed-effects (i.e., the four U.S. Census regions), and including industry and occupation fixed-effects. Second, we vary how we operationalize PSL mandates. We code a state as having a PSL mandate if there is a PSL **or** PTO mandate, and we incorporate substate mandates in two ways: redefine a state PSL mandate as a state-wide mandate **or** a substate mandate in which the affected locality has a population of 500,000 or more residents in 2010 according to the U.S. Census (this classification recodes California, Illinois, Maryland, Minnesota, New York, Oregon,

Pennsylvania, and Washington from zero to one in some years), and code substate mandates (NPWF, 2023a) for which we can isolate the affected geography, e.g., we code San Francisco, California as having a mandate in February 2009 (with our lag structure, this locality is coded as having a mandate from February 2011 onward). Relatedly, we lag the mandate variable just one year and separately also use the current year of the mandate (no lag).

Third, we examine different samples: excluding the pandemic period, dropping groups of states that display substantial shares of workers living in one state and working in another (Maryland and Virginia; Connecticut, New Jersey, and New York), keeping only the employed, including only those working in industries with low access to PSL benefits pre-policy, and including the seven states will low state-level coverage (see Section 3.1). Fourth, we detrend the data to address remaining concerns about differential pre-trends between adopting and non-adopting states (we estimate a separate linear time trend for each state using pre-mandate data for treatment states and all years for control states, and we remove the trend).

In Appendix Table 9 we estimate the effect of state PSL mandates on 1) any primary child care and 2) the conditional number of minutes spent in primary childcare (i.e., we exclude respondents who report no minutes of primary childcare on the diary day). Appendix Figure 5 reports event-study results for these outcomes and findings support the plausibility of parallel trends. We find no evidence that PSL mandate adoption leads to changes in the probability of any time spent on primary childcare, comparable to Guo and Peng (2024), but an (imprecise) increase along the intensive

margin that is comparable to our main result. These findings suggest that examining the total amount of childcare is important.

In Appendix Table 10, we present estimates for several alternative DID estimators utilized within the economics literature: Borusyak et al. (2025), Callaway and Sant'Anna (2021), Wooldridge (2023), stacked difference-in-differences (Cengiz et al., 2019), and TWFE. Results are generally quite robust to the chosen estimator, though the findings based on Callaway and Sant'Anna (2021) are imprecise, which is perhaps not surprising as Gardner et al. (2024) offer evidence based on simulations that the Callaway and Sant'Anna (2021) procedure yields large standard errors. The ATUS, with smaller sample sizes as discussed in Section 3.1, may lead the Callaway and Sant'Anna (2021) estimator to be particularly vulnerable to this concern. However, we note that some sensitivity of the results to the chosen estimator is a limitation of our study. We also conduct a Goodman-Bacon (2021) decomposition to assess the importance of bias from a staggered treatment rollout and find that 98.5% of the two-by-two DID comparisons are 'reasonable.'

Fifth, we estimate the *t*-statistic generated by testing the null of no treatment effect using a score bootstrap approach that has been shown to have better properties with few treated units (Brewer et al., 2018; Kline & Santos, 2012; Roodman et al., 2019). The *t*-statistic is 2.56, which is consistent with the results of our main inference approach (i.e., clustering standard errors at the state-level).

Sixth, we report results for weekday and weekend diary days (Appendix Figure 6). Effects are driven by weekdays, which is consistent with respondents taking time off work to provide childcare. Seventh, we report results by the number of household

children, but find no statistically significant differences, which is likely due to the smaller sample sizes (Appendix Figure 7). However, the effect size is over twice as large in households with three or more children. Eighth, we report results for single-parent and multiple-parent households and find the effects are driven by the multiple-parent households who make up 85.6% of the sample (Appendix Figure 8).[11] Ninth, we conduct a 'leave-one-out' analysis where we sequentially exclude each treated state and re-estimate Equations (1) and (2). Given California's large population and the fact that this state has a particularly generous PSL mandate (NPWF, 2023a), we estimate Equations (1) and (2) using only California and non-PSL mandate states. Results are robust, though California is empirically important (Appendix Figure 9).

6. Discussion

In this study, we explore the extent to which U.S. state PSL mandates allow families to better balance work and childcare. Given that balancing work and family responsibilities is a key argument made by PSL mandate proponents and policymakers, and that the majority of families report that achieving this balance is challenging (Howington, 2024), evaluating the impacts of PSL mandates on childcare provision is a first-order question for assessing whether these mandates are effective.

Our findings provide evidence that these mandates are meeting one of the core objectives touted by policymakers: allowing families the flexibility to provide care to their children. Combining data from the 2004–2023 ATUS with DID methods, we show that post-mandate, time spent on primary childcare increases by 5.8% among respondents

[11] There are 11,271 respondents living in single-parent families and 66,809 respondents living in multiple-parent families.

with children under age 18 in the household. Parents also spend 3.4% more face time with their children. We observe some evidence of heterogeneity in treatment effects by sex, age of the youngest child, and education. Primary childcare changes are driven by mothers of young children, parents also spend more face time with children when they have younger children, fathers spend more face time with children when they are school-aged, and fathers living with school-aged children (but not younger children) spend 12.0% more time on secondary childcare of these children. The heterogeneity in effect size by sex is in line with traditional gendered norms around childcare in the U.S. and developmental needs of children.

Our study has some limitations. The ATUS, the only data source that records time use at the national level and over time, is not designed to be representative at the state level (the level at which our treatment varies), which can lead to bias (Maclean, Tello-Trillo, et al., 2023). Moreover, due to declining response rates, ATUS sample sizes are decreasing over our study period. We also focus on relatively early adopting states; thus, our findings may not generalize to all states that may at some point in the future adopt a PSL mandate.

Our findings suggest that PSL mandates improve the well-being of parents and children by allowing parents to better balance work and family responsibilities. This evidence is useful for assessing the overall efficiency of mandated PSL.

References

A Better Balance. (2025). *Paid Sick Time*. https://www.abetterbalance.org/paid-sick-time-laws/

Ahn, T., & Yelowitz, A. (2016). *Paid Sick Leave and Absenteeism: The First Evidence from the U.S.* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2740366

Allard, M. D., Bianchi, S., Stewart, J., & Wright, V. R. (2007). Comparing Childcare Measures in the Atus and Earlier Time-Diary Studies. *Monthly Labor Review*, *130*, 27.

Andersen, M., Maclean, J. C., Pesko, M. F., & Simon, K. (2023). Does Paid Sick Leave Encourage Staying at Home? Evidence from the United States during a Pandemic. *Health Economics*, *32*(6), 1256-1283.

Arora, K., & Wolf, D. A. (2024). Paid Leave Mandates and Care for Older Parents. *The Milbank Quarterly*, *Forthcoming*. https://doi.org/https://doi.org/10.1111/1468-0009.12708

Bagalb, A. (2023). *The Effect of Parental Paid Sick Leave on Youth Risky Behavior: Evidence from High School Students across the United States District from 2005-2019*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4372778

BLS. (2024). *Usual Weekly Earnings of Wage and Salary Workers First Quarter 2024*. https://www.bls.gov/news.release/archives/wkyeng_04162024.htm

Borusyak, K., Jaravel, X., & Spiess, J. (2025). Revisiting Event-Study Designs: Robust and Efficient Estimation. *The Review of Economic Studies*.

Brewer, M., Crossley, T. F., & Joyce, R. (2018). Inference with Difference-in-Differences Revisited. *Journal of Econometric Methods*, *7*(1), 20170005.

Butts, K., & Gardner, J. (2022). Did2s: Two-Stage Difference-in-Differences. *The R Journal*, *14*(3), 162-173.

Byker, T., Patel, E., & Ramnath, S. (2023). Who Cares? Paid Sick Leave Mandates, Caregiving, and Gender. *National Tax Journal*, *76*(3), 649-677.

Caetano, G., Kinsler, J., & Teng, H. (2019). Towards Causal Estimates of Children's Time Allocation on Skill Development. *Journal of Applied Econometrics*, *34*(4), 588-605. https://doi.org/https://doi.org/10.1002/jae.2700

Callaway, B., & Sant'Anna, P. H. (2021). Difference-in-Differences with Multiple Time Periods. *Journal of Econometrics*, *225*(2), 200-230.

Callison, K., & Pesko, M. F. (2022). The Effect of Paid Sick Leave Mandates on Coverage, Work Absences, and Presenteeism. *Journal of Human Resources*, *57*(4), 1178-1208.

Callison, K., Pesko, M. F., Phillips, S., & Sosa, J. A. (2023). Cancer Screening after the Adoption of Paid-Sick-Leave Mandates. *New England Journal of Medicine*, *388*(9), 824-832.

Cengiz, D., Dube, A., Lindner, A., & Zipperer, B. (2019). The Effect of Minimum Wages on Low-Wage Jobs. *The Quarterly Journal of Economics*, *134*(3), 1405-1454.

Currie, J., & Almond, D. (2011). Human Capital Development before Age Five. In *Handbook of Labor Economics* (Vol. 4, pp. 1315-1486). Elsevier.

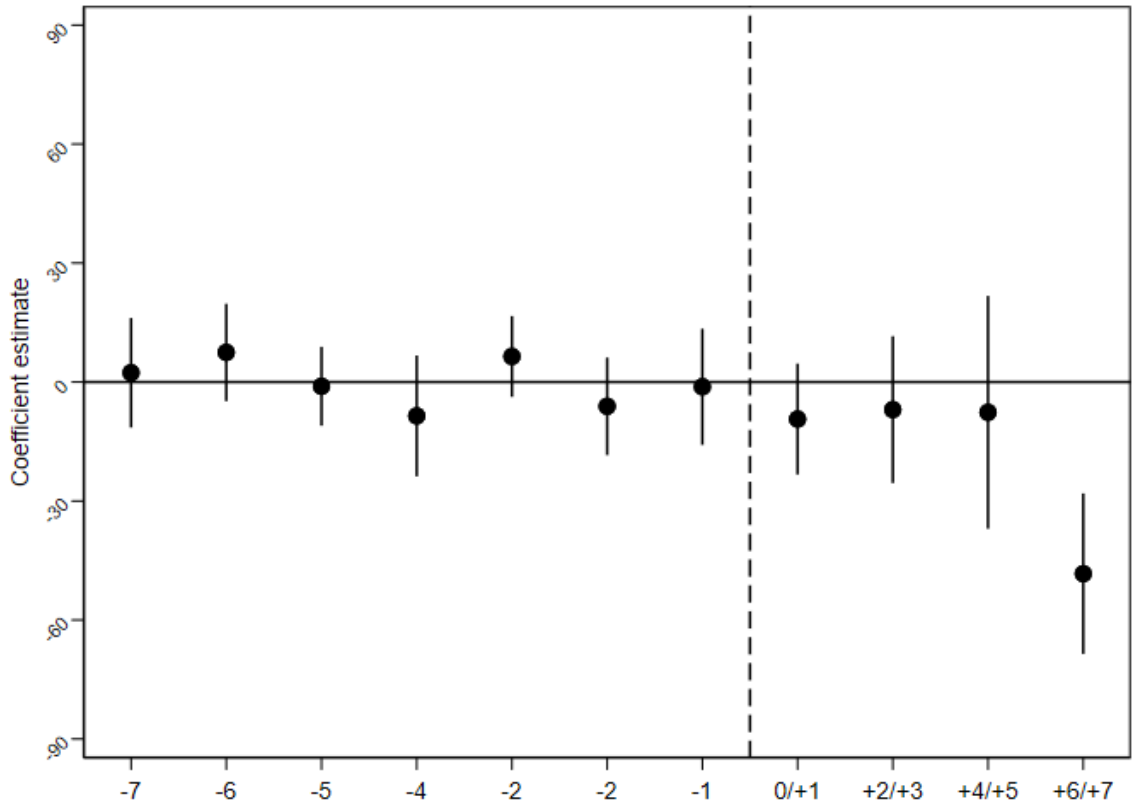
Drago, R. (2009). The Parenting of Infants: A Time-Use Study. *Monthly Labor Review*, *132*, 33.

Flood, S., Sayer, L., Backman, D., & Chen, A. (2023). *American Time Use Survey Data Extract Builder: Version 3.2 [Dataset]*. https://doi.org/10.18128/D060.V3.2
Folbre, N. (2022). Beyond the Clock: Rethinking the Meaning of Unpaid Childcare in the U.S. *Time & Society*, *32*(4), 367-384. https://doi.org/10.1177/0961463X221131108
Gardner, J. (2022). *Two-Stage Differences in Differences* (ArXiv Working Paper Series, Issue. https://arxiv.org/abs/2207.05943
Gardner, J., Thakral, N., Tô, L. T., & Yap, L. (2024). *Two-Stage Differences in Differences*. https://linh.to/files/papers/2sdd.pdf
Goodman-Bacon, A. (2021). Difference-in-Differences with Variation in Treatment Timing. *Journal of Econometrics*, *225*(2), 254-277.
Guo, X. R., & Peng, L. (2024). *Paid-Sick-Leave Mandates: Care Provision and Health Behavior Effects*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4815899
Howington, J. (2024). *12 Stats About Working Families and Work*. https://www.flexjobs.com/employer-blog/12-stats-working-families-work/
Juster, F. T. (1985). The Validity and Quality of Time Use Estimates Obtained from Recall Diaries. In *Time, Goods, and Well-Being* (pp. 63-92).
Kline, P., & Santos, A. (2012). A Score Based Approach to Wild Bootstrap Inference. *Journal of Econometric Methods*, *1*(1), 23-41.
Ma, Y., Johnston, K. J., Yu, H., Wharam, J. F., & Wen, H. (2022). State Mandatory Paid Sick Leave Associated with a Decline in Emergency Department Use in the Us, 2011–19. *Health Affairs*, *41*(8), 1169-1175.
Maclean, J. C., Golberstein, E., & Stein, B. (2024). State Paid Sick Leave Mandates Associated with Increased Mental Health Disorder Prescriptions among Medicaid Enrollees. *Health Affairs Scholar*, *2*(5), qxae045.
Maclean, J. C., Pichler, S., & Ziebarth, N. R. (2025). Mandated Sick Pay: Coverage, Utilization, and Crowding-In. *Journal of the European Economic Association*, *Forthcoming*.
Maclean, J. C., Popovici, I., & Ruhm, C. J. (2023). *Does Paid Sick Leave Facilitate Reproductive Choice?* (National Bureau of Economic Research Working Paper Series, Issue. https://www.nber.org/papers/w31801
Maclean, J. C., Tello-Trillo, S., & Webber, D. (2023). Losing Insurance and Psychiatric Hospitalizations. *Journal of Economic Behavior & Organization*, *205*, 508-527.
Miller, M. M. (2022). The Impact of Paid Sick Leave Laws on Consumer and Business Bankruptcies. *Journal of Empirical Legal Studies*, *19*(4), 844-896.
NPWF. (2023a). *Current Paid Sick Days Laws*. https://nationalpartnership.org/wp-content/uploads/2023/02/current-paid-sick-days-laws.pdf
NPWF. (2023b). *State Paid Family & Medical Leave Insurance Laws*. https://nationalpartnership.org/wp-content/uploads/2023/02/state-paid-family-leave-laws.pdf
Pabilonia, S. W., & Vernon, V. (2022). Telework, Wages, and Time Use in the United States. *Review of Economics of the Household*, *20*(3), 687-734.
Pichler, S., Wen, K., & Ziebarth, N. R. (2021). Positive Health Externalities of Mandating Paid Sick Leave. *Journal of Policy Analysis and Management*, *40*(3), 715-743.

Pichler, S., & Ziebarth, N. R. (2017). The Pros and Cons of Sick Pay Schemes: Testing for Contagious Presenteeism and Noncontagious Absenteeism Behavior. *Journal of Public Economics*, *156*, 14-33.
Pichler, S., & Ziebarth, N. R. (2024). *Sick Leave and Medical Leave in the United States: A Categorization and Recent Trends* (IZA Policy Papers, Issue.
Powell, D. (2021). *The Labor Supply Consequences of the Opioid Crisis*.
Reid, M. G. (1934). *Economics of Household Production*. J. Wiley & Sons.
Roodman, D., Nielsen, M. Ø., MacKinnon, J. G., & Webb, M. D. (2019). Fast and Wild: Bootstrap Inference in Stata Using Boottest. *The Stata Journal*, *19*(1), 4-60.
Rosa, R. R., & Asfaw, A. (2023). Percentage of Currently Employed Adults Aged≥ 18 Years Who Have Paid Sick Leave, by Education Level--National Health Interview Survey, 2021. *Morbidity & Mortality Weekly Report*, *72*(17).
Ruggles, S., Flood, S., Sobek, M., Backman, D., Chen, A., Cooper, G., Richards, S., Rodgers, R., & Schouweiler, M. (2024). *Ipums USA: Version 15.0 [Dataset]*. https://usa.ipums.org/usa/cite.shtml
Sanders, B., & DeLauro, R. (2023). *Health Families Act of 2023*. https://www.sanders.senate.gov/wp-content/uploads/HFA-Fact-Sheet-118th.pdf
Seixas, B. V., & Macinko, J. (2020). Unavailability of Paid Sick Leave among Parents Is a Barrier for Children's Utilization of Nonemergency Health Services: Evidence from the National Health Interview Survey. *The International Journal of Health Planning and Management*, *35*(5), 1083-1097.
Slopen, M. (2023). The Impact of Paid Sick Leave Mandates on Women's Health. *Social Science & Medicine*, *323*, 115839.
Slopen, M. (2024). The Impact of Paid Sick Leave Mandates on Women's Employment and Economic Security. *Journal of Policy Analysis and Management*, *43*(4), 1129--1151.
Stearns, J., & White, C. (2018). Can Paid Sick Leave Mandates Reduce Leave-Taking? *Labour Economics*, *51*, 227-246.
Stewart, J. (2010). The Timing of Maternal Work and Time with Children. *ILR Review*, *64*(1), 181-200.
Stewart, J., & Allard, M. D. (2016). Secondary Child Care in the A.T.U.S.: What Does It Measure? In *The Economics of Multitasking* (pp. 145-171). Springer.
UKCPR. (2023). *Ukcpr National Welfare Data, 1980-2021 [Internet] Lexington, Ky*. https://ukcpr.org/resources/national-welfare-data
Van Riper, D., Flood, S., & Roberts, F. (2021). *Unraveling Geographic Complexities in the Current Population Survey* (IPUMS Working Paper Series, Issue. https://assets.ipums.org/_files/ipums/working_papers/ipums_wp_2021-02.pdf
Vander Weerdt, C., Stoddard-Dare, P., & DeRigne, L. (2023). Is Paid Sick Leave Bad for Business? A Systematic Review. *American Journal of Industrial Medicine*, *66*(6), 429-440.
Wolf, D. A., Montez, J. K., & Monnat, S. M. (2022). U.S. State Preemption Laws and Working-Age Mortality. *American Journal of Preventive Medicine*, *63*(5), 681-688.
Wooldridge, J. M. (2023). Simple Approaches to Nonlinear Difference-in-Differences with Panel Data. *The Econometrics Journal*, *26*(3), C31-C66.
Zick, C. D., & Bryant, W. K. (1996). A New Look at Parents' Time Spent in Child Care: Primary and Secondary Time Use. *Social Science Research*, *25*(3), 260-280.

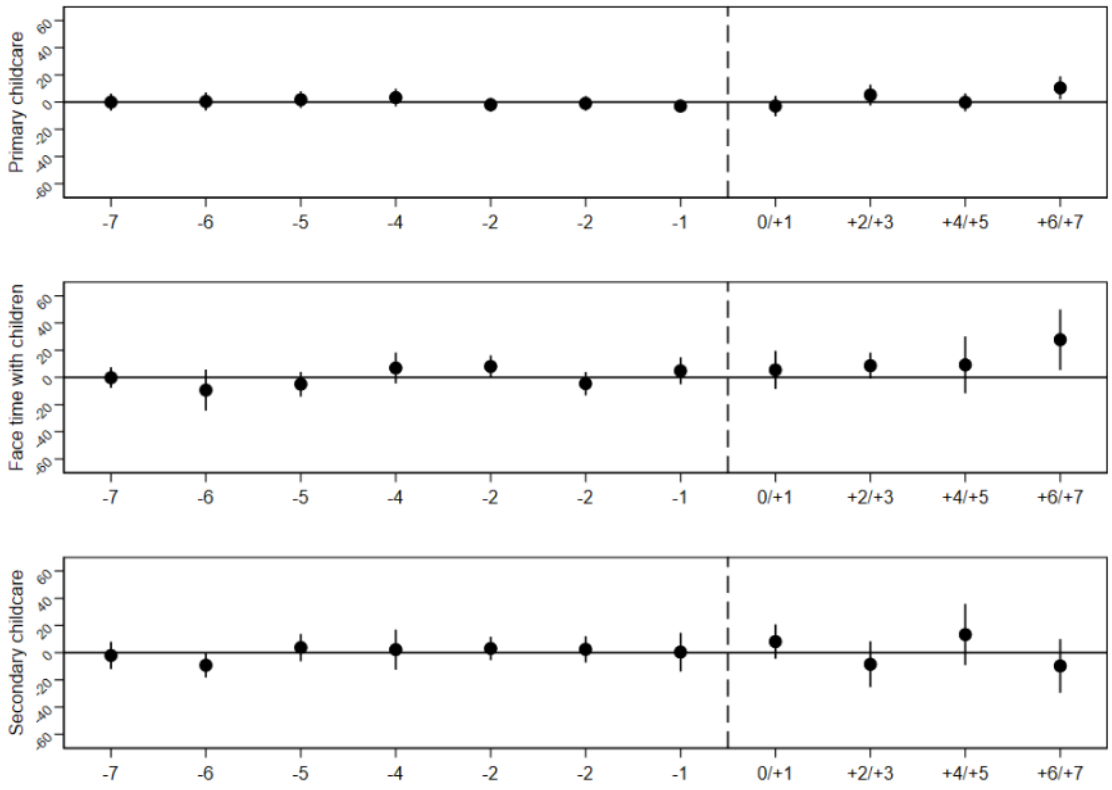
Zoc Doc. (2013). *Zocdoc Releases 2013 U.S. Health Checkup, Revealing This Year's Top Patient Trends*. https://www.zocdoc.com/about/news/zocdoc-releases-2013-s-s-health-checkup-revealing-this-years-top-patient-trends-2/

Figure 1. Effect of a state paid sick leave mandate on time devoted to work (minutes per average day) among adults 22–59 years old with children in the household using an event-study



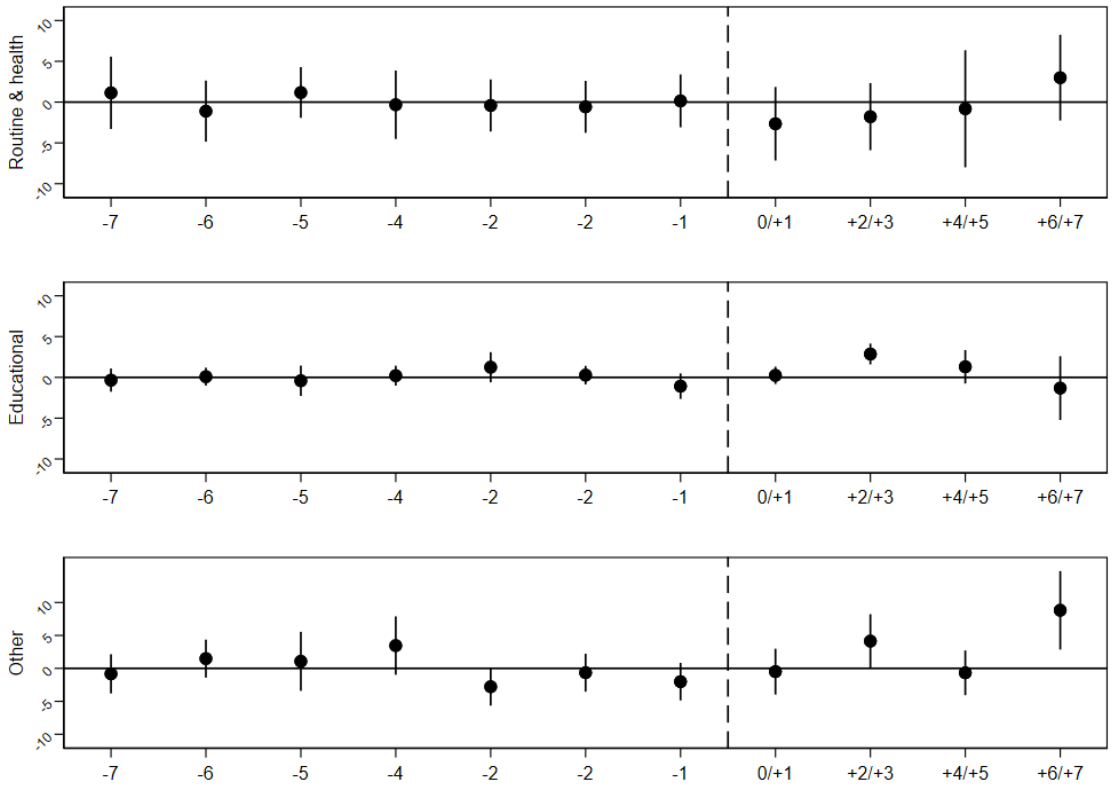
Notes: The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Beta coefficient estimates are reported with black circles and 95% confidence intervals that account for within-state clustering are reported with vertical lines. We impose endpoint restrictions: periods more than seven years pre-event are coded one for the -7 indicator and periods more than seven years post-event are coded one for the +6/+7 indicator. The Gardner (2022) event-study estimator does not have an omitted category. All coefficient estimates are implicitly normalized to the pre-period average. For four states (Alaska, Minnesota, Missouri, and Nebraska) that adopt a mandate after 2023, we code that state in its pre-treatment period (e.g., in 2023, Minnesota is coded as being two years in advance of the mandate being adopted). In unreported analyses, we have i) ignored these states (treating them as never-treated states) and ii) excluded these states from the analysis, results (which are available on request) are not appreciably different.
Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Figure 2. Effect of a state paid sick leave mandate on childcare outcomes (minutes per average day) among adults 22–59 years old with children in the household using an event-study



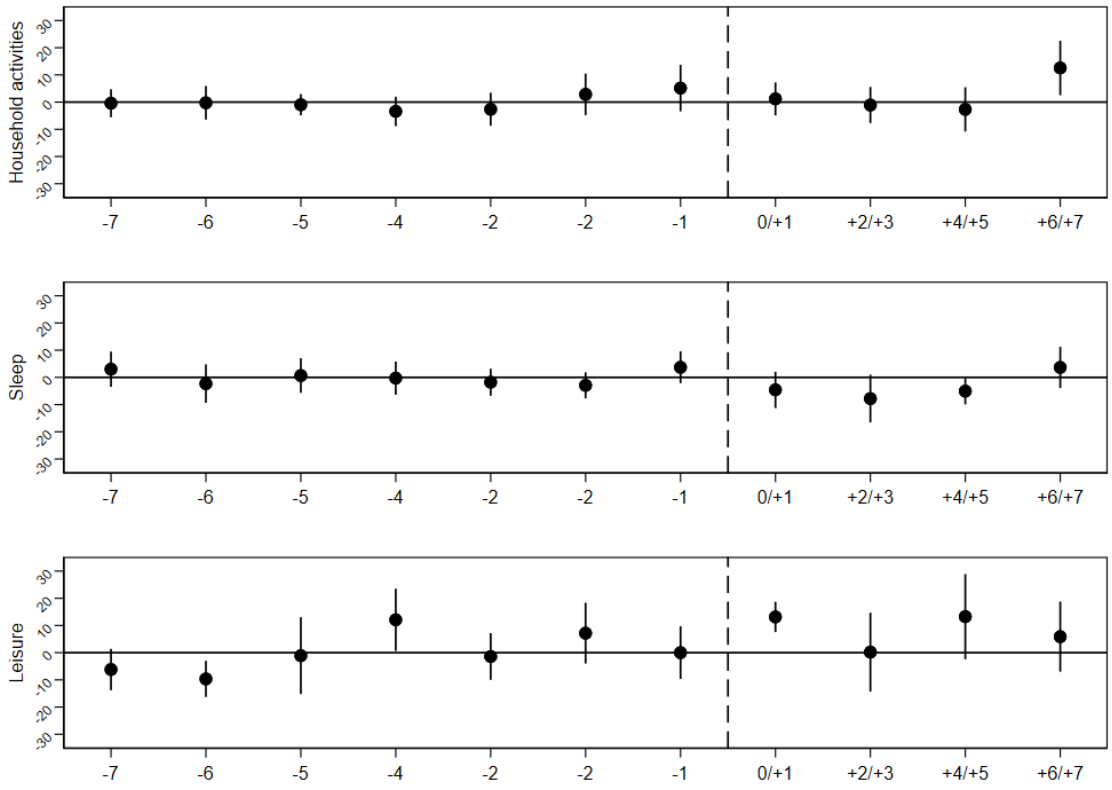
Notes: The samples for primary care and face time with children includes only those with children under age 18 in the household and the sample for secondary childcare includes only those with children under age 13 in the household. Each outcome includes childcare related to household children only. The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Beta coefficient estimates are reported with black circles and 95% confidence intervals that account for within-state clustering are reported with vertical lines. We impose endpoint restrictions: periods more than seven years pre-event are coded one for the -7 indicator and periods more than seven years post-event are coded one for the +6/+7 indicator. The Gardner (2022) event-study estimator does not have an omitted category. All coefficient estimates are implicitly normalized to the pre-period average. For four states (Alaska, Minnesota, Missouri, and Nebraska) that adopt a mandate after 2023, we code that state in its pre-treatment period (e.g., in 2023, Minnesota is coded as being two years in advance of the mandate being adopted). In unreported analyses, we have i) ignored these states (treating them as never-treated states) and ii) excluded these states from the analysis, results (which are available on request) are not appreciably different.
Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Figure 3. Effect of a state paid sick leave mandate on specific types of primary childcare (minutes per average day) among adults 22–59 years old with children in the household using an event-study



Notes: The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Beta coefficient estimates are reported with black circles and 95% confidence intervals that account for within-state clustering are reported with vertical lines. We impose endpoint restrictions: periods more than seven years pre-event are coded one for the -7 indicator and periods more than seven years post-event are coded one for the +6/+7 indicator. The Gardner (2022) event-study estimator does not have an omitted category. All coefficient estimates are implicitly normalized to the pre-period average. For four states (Alaska, Minnesota, Missouri, and Nebraska) that adopt a mandate after 2023, we code that state in its pre-treatment period (e.g., in 2023, Minnesota is coded as being two years in advance of the mandate being adopted). In unreported analyses, we have i) ignored these states (treating them as never-treated states) and ii) excluded these states from the analysis, results (which are available on request) are not appreciably different.
Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Figure 4. Effect of a state paid sick leave mandate on other time-use outcomes (minutes per average day) among adults 22–59 years old with children in the household using an event-study



Notes: The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Beta coefficient estimates are reported with black circles and 95% confidence intervals that account for within-state clustering are reported with vertical lines. We impose endpoint restrictions: periods more than seven years pre-event are coded one for the -7 indicator and periods more than seven years post-event are coded one for the +6/+7 indicator. The Gardner (2022) event-study estimator does not have an omitted category. All coefficient estimates are implicitly normalized to the pre-period average. For four states (Alaska, Minnesota, Missouri, and Nebraska) that adopt a mandate after 2023, we code that state in its pre-treatment period (e.g., in 2023, Minnesota is coded as being two years in advance of the mandate being adopted). In unreported analyses, we have i) ignored these states (treating them as never-treated states) and ii) excluded these states from the analysis, results (which are available on request) are not appreciably different.
Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Table 1A. Paid and unpaid leave access and use among wage and salary workers 22–59 years old with children in the household: American Time Use Survey 2011, 2017, and 2018

Sample:	Adults	Women	Men
Leave access			
Any paid leave	0.68	0.64	0.73
Paid leave for own health	0.64	0.60	0.69
Paid leave for family member health	0.58	0.55	0.61
Paid leave for childcare	0.44	0.40	0.49
Paid leave for eldercare	0.40	0.38	0.44
Paid leave for vacation	0.65	0.59	0.71
Paid leave for personal reasons or errands	0.49	0.44	0.54
Paid leave for childbirth	0.57	0.54	0.61
Any unpaid leave	0.85	0.86	0.83
Unpaid leave for own health	0.82	0.83	0.80
Unpaid leave for family member health	0.79	0.81	0.77
Unpaid leave for childcare	0.70	0.70	0.69
Unpaid leave for eldercare	0.67	0.68	0.66
Unpaid leave for vacation	4.35	4.48	4.21
Unpaid leave for personal reasons or errands	0.58	0.57	0.59
Unpaid leave for childbirth	0.68	0.69	0.68
Leave use			
Need leave, but did not use leave, in the past seven days	0.06	0.08	0.04
Use any paid or unpaid leave in the past seven days	0.21	0.22	0.21
Hours of paid or unpaid leave used in the past seven days	2.62	2.79	2.41
Observations	157779	89400	68379

Notes: The unit of observation is a respondent in a state in a year. Data are weighted by American Time Use Survey leave module weights.
Source: 2011, 2017, and 2018 American Time Use Survey Leave Module (Flood et al. 2023).

Table 1B. Paid and unpaid leave access among wage and salary workers 22–59 years old with children in the household and no college degree: American Time Use Survey 2011, 2017, and 2018

Sample:	Adults	Women	Men
Leave access			
Any paid leave	0.65	0.62	0.69
Paid leave for own health	0.60	0.57	0.63
Paid leave for family member health	0.53	0.51	0.55
Paid leave for childcare	0.40	0.37	0.43
Paid leave for eldercare	0.37	0.34	0.39
Paid leave for vacation	0.62	0.57	0.67
Paid leave for personal reasons or errands	0.45	0.42	0.49
Paid leave for childbirth	0.53	0.51	0.56
Any unpaid leave	0.84	0.86	0.83
Unpaid leave for own health	0.82	0.83	0.80
Unpaid leave for family member health	0.79	0.80	0.77
Unpaid leave for childcare	0.69	0.69	0.68
Unpaid leave for eldercare	0.65	0.67	0.64
Unpaid leave for vacation	4.11	4.68	3.48
Unpaid leave for personal reasons or errands	0.55	0.55	0.56
Unpaid leave for childbirth	0.66	0.67	0.64
Leave use			
Need leave, but did not use leave, in the past seven days	0.06	0.08	0.04
Use any paid or unpaid leave in the past seven days	0.20	0.20	0.20
Hours of paid or unpaid leave used in the past seven days	2.42	2.55	2.28
Observations	111776	62973	48803

Notes: The unit of observation is a respondent in a state in a year. Data are weighted by American Time Use Survey leave module weights.
Source: 2011, 2017, and 2018 American Time Use Survey Leave Module (Flood et al. 2023).

Table 2. Effect of a state paid sick leave mandate (lagged two years) on time devoted to work among adults 22–59 years old with children in the household (minutes per average day)

Sample:	Women and men	Women	Men
Panel A: All	-14.94**	-8.53	-18.42**
	(6.03)	(6.67)	(8.77)
Pre-treatment mean, paid sick leave mandate states	268.59	202.93	343.34
Percent change	-5.56	-4.20	-5.36
Observations	78080	45693	32387
Panel B: Youngest child	-27.31***	-29.25***	-21.41*
0–5 years old	(7.03)	(7.75)	(12.37)
Pre-treatment mean, paid sick leave mandate states	250.33	172.29	339.93
Percent change	-10.91	-16.98	-6.30
Observations	36331	21020	15311
Panel C: Youngest child	-0.11	13.91*	-10.63
6–17 years old	(8.77)	(8.39)	(13.87)
Pre-treatment mean, paid sick leave mandate states	284.64	230.06	346.31
Percent change	-0.04	6.05	-3.07
Observations	41749	24673	17076
Panel D: No college degree	-13.88*	-5.41	-18.77*
	(7.55)	(8.22)	(10.88)
Pre-treatment mean, paid sick leave mandate states	254.47	188.28	328.73
Percent change	-5.45	-2.87	-5.71
Observations	46168	27393	18775
Panel E: No college degree,	-21.58**	-20.07*	-12.74
youngest child 0–5 years old	(9.54)	(11.28)	(20.12)
Pre-treatment mean, paid sick leave mandate states	234.20	156.16	323.19
Percent change	-9.21	-12.85	-3.94
Observations	46168	27393	18775
Panel F: No college degree,	-6.26	12.11	-22.88*
youngest child 6–17 years old	(8.20)	(11.97)	(11.75)
Pre-treatment mean, paid sick leave mandate states	272.22	216.81	333.51
Percent change	-2.30	5.59	-6.86
Observations	46168	27393	18775

Notes: The sample includes only those with children under age 18 in the household. The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Standard errors clustered at the state level are reported in parentheses. Percent change is calculated by comparing the coefficient estimate with the pre-treatment mean in PSL adopting states.

***, **, * = statistically different from zero at the 1%, 5%, 10% level.

Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Table 3. Effect of a state paid sick leave mandate (lagged two years) on childcare outcomes among adults 22–59 years old with children in the household (minutes per average day)

Outcome:	Primary childcare	Face time with children	Secondary childcare
Women and men			
Panel A: All	4.45**	10.42**	3.92
	(1.76)	(5.19)	(4.94)
Pre-treatment mean, paid sick leave mandate states	76.77	309.56	310.77
Percent change	5.80	3.37	1.26
Observations	78080	78080	64626
Panel B: Youngest child	13.07***	13.93*	-0.74
0–5 years old	(4.01)	(8.34)	(6.39)
Pre-treatment mean, paid sick leave mandate states	114.90	384.85	325.57
Percent change	11.38	3.62	-0.23
Observations	36331	36331	36331
Panel C: Youngest child	-3.14	7.67	11.67
6–17 years old	(2.31)	(5.64)	(7.72)
Pre-treatment mean, paid sick leave mandate states	43.29	243.46	290.13
Percent change	-7.25	3.15	4.02
Observations	41749	41749	28295
Women			
Panel D: All	7.31***	4.37	-1.96
	(2.41)	(6.32)	(7.20)
Pre-treatment mean, paid sick leave mandate states	97.09	363.67	367.75
Percent change	7.53	1.20	-0.53
Observations	45693	45693	37761
Panel E: Youngest child	16.54**	9.92	-4.81
0–5 years old	(7.16)	(10.22)	(8.22)
Pre-treatment mean, paid sick leave mandate states	144.81	458.90	389.35
Percent change	11.42	2.16	-1.24
Observations	21020	21020	21020
Panel F: Youngest child	-3.14	-4.61	-8.97
6–17 years old	(4.34)	(7.40)	(13.62)
Pre-treatment mean, paid sick leave mandate states	54.86	279.39	337.30
Percent change	-5.72	-1.65	-2.66
Observations	24673	24673	16741
Men			
Panel G: All	0.72	16.45*	10.50
	(2.35)	(8.55)	(10.57)
Pre-treatment mean, paid sick leave mandate states	53.68	248.08	246.11
Percent change	1.34	6.63	4.27
Observations	32387	32387	26865
Panel H: Youngest child	6.62	17.25	1.86
0–5 years old	(5.32)	(18.08)	(11.83)
Pre-treatment mean, paid sick leave mandate states	80.61	299.94	252.44
Percent change	8.21	5.75	0.74
Observations	15311	15311	15311

Panel I: Youngest child	-2.31	20.57**	28.54*
6–17 years old	(3.01)	(9.93)	(14.88)
Pre-treatment mean, paid sick leave mandate states	30.26	202.97	237.39
Percent change	-7.63	10.13	12.02
Observations	17076	17076	11554

Notes: The sample for primary childcare and face time with children includes only those with children under age 18 in the household, while the sample for secondary childcare includes only those with children under age 13 in the household. Each outcome includes childcare related to household children only. The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Standard errors clustered at the state level are reported in parentheses. Percent change is calculated by comparing the coefficient estimate with the pre-treatment mean in PSL adopting states.
***, **, * = statistically different from zero at the 1%, 5%, 10% level.
Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Table 4. Effect of a state paid sick leave mandate (lagged two years) on specific types of primary childcare among adults 22–59 years old with children in the household (minutes per average day)

Outcome:	Total	Routine and health	Educational	Other
Women and men				
Panel A: All	4.45**	0.60	0.81	3.04***
	(1.76)	(1.58)	(0.65)	(1.00)
Pre-treatment mean, paid sick leave mandate states	76.77	35.64	7.02	34.10
Percent change	5.80	1.68	11.54	8.91
Observations	78080	78080	78080	78080
Panel B: Youngest child	13.07***	1.81	2.42**	8.84***
0–5 years old	(4.01)	(3.38)	(1.02)	(1.70)
Pre-treatment mean, paid sick leave mandate states	114.90	59.77	5.48	49.65
Percent change	11.38	3.03	44.16	17.80
Observations	36331	36331	36331	36331
Panel C: Youngest child	-3.14	-1.60	-0.23	-1.31
6–17 years old	(2.31)	(1.05)	(1.06)	(1.37)
Pre-treatment mean, paid sick leave mandate states	43.29	14.46	8.37	20.46
Percent change	-7.25	-11.07	-2.75	-6.40
Observations	41749	41749	41749	41749
Women				
Panel D: All	7.31***	1.80	0.61	4.89***
	(2.41)	(1.77)	(1.34)	(1.44)
Pre-treatment mean, paid sick leave mandate states	97.09	47.80	9.27	40.02
Percent change	7.53	3.77	6.58	12.22
Observations	45693	45693	45693	45693
Panel E: Youngest child	16.54**	2.59	2.04	11.90***
0–5 years old	(7.16)	(4.26)	(1.76)	(3.99)
Pre-treatment mean, paid sick leave mandate states	144.81	79.12	7.52	58.17
Percent change	11.42	3.27	27.13	20.46
Observations	21020	21020	21020	21020
Panel F: Youngest child	-3.14	-1.40	-0.38	-1.36
6–17 years old	(4.34)	(1.57)	(2.05)	(1.91)
Pre-treatment mean, paid sick leave mandate states	54.86	20.08	10.81	23.97
Percent change	-5.72	-6.97	-3.52	-5.67
Observations	24673	24673	24673	24673
Men				
Panel G: All	0.72	-1.19	1.15**	0.76
	(2.35)	(1.72)	(0.50)	(1.75)
Pre-treatment mean, paid sick leave mandate states	53.68	21.83	4.47	27.38
Percent change	1.34	-5.45	25.73	2.78
Observations	32387	32387	32387	32387
Panel H: Youngest child	6.62	-0.53	2.68***	4.47
0–5 years old	(5.32)	(3.76)	(0.91)	(3.30)
Pre-treatment mean, paid sick leave mandate states	80.61	37.58	3.15	39.88
Percent change	8.21	-1.41	85.08	11.21
Observations	15311	15311	15311	15311

Panel I: Youngest child	-2.31	-1.48	0.19	-1.02
6–17 years old	(3.01)	(1.48)	(0.60)	(2.20)
Pre-treatment mean, paid sick leave mandate states	30.26	8.13	5.62	16.51
Percent change	-7.63	-18.20	3.38	-6.18
Observations	17076	17076	17076	17076

Notes: The sample includes only those with children under age 18 in the household. Each outcome includes childcare related to household children only. The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Standard errors clustered at the state level are reported in parentheses. Percent change is calculated by comparing the coefficient estimate with the pre-treatment mean in PSL adopting states.

***,**,* = statistically different from zero at the 1%, 5%,10% level.

Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Table 5. Effect of a state paid sick leave mandate (lagged two years) on other time-use outcomes among adults 22–59 years old with children in the household (minutes per average day)

Outcome:	Household activities	Sleep	Leisure
Women and men			
Panel A: All	1.12	-2.61	4.11
	(2.58)	(1.92)	(3.45)
Pre-treatment mean, paid sick leave mandate states	119.33	509.37	233.01
Percent change	0.94	-0.51	1.76
Observations	78080	78080	78080
Panel B: Youngest child	-2.52	5.21*	-0.07
0–5 years old	(4.55)	(2.83)	(4.73)
Pre-treatment mean, paid sick leave mandate states	116.70	511.05	223.60
Percent change	-2.16	1.02	-0.03
Observations	36331	36331	36331
Panel C: Youngest child	3.96	-9.77***	5.62
6–17 years old	(3.19)	(3.24)	(5.29)
Pre-treatment mean, paid sick leave mandate states	121.65	507.89	241.26
Percent change	3.26	-1.92	2.33
Observations	41749	41749	41749
Women			
Panel D: All	2.49	-2.95	-9.80**
	(2.53)	(3.14)	(4.16)
Pre-treatment mean, paid sick leave mandate states	153.84	516.04	218.64
Percent change	1.62	-0.57	-4.48
Observations	45693	45693	45693
Panel E: Youngest child	-3.36	2.99	-0.38
0–5 years old	(4.58)	(4.96)	(8.64)
Pre-treatment mean, paid sick leave mandate states	152.03	521.47	210.57
Percent change	-2.21	0.57	-0.18
Observations	21020	21020	21020
Panel F: Youngest child	7.93*	-6.58	-19.95***
6–17 years old	(4.10)	(6.02)	(6.29)
Pre-treatment mean, paid sick leave mandate states	155.45	511.24	225.78
Percent change	5.10	-1.29	-8.84
Observations	24673	24673	24673
Men			
Panel G: All	-1.71	-3.36	19.42***
	(3.68)	(3.30)	(4.70)
Pre-treatment mean, paid sick leave mandate states	80.12	501.79	249.33
Percent change	-2.13	-0.67	7.79
Observations	32387	32387	32387
Panel H: Youngest child	-3.21	4.53	4.49
0–5 years old	(5.18)	(3.69)	(6.58)
Pre-treatment mean, paid sick leave mandate states	76.18	499.11	238.54
Percent change	-4.21	0.91	1.88
Observations	15311	15311	15311

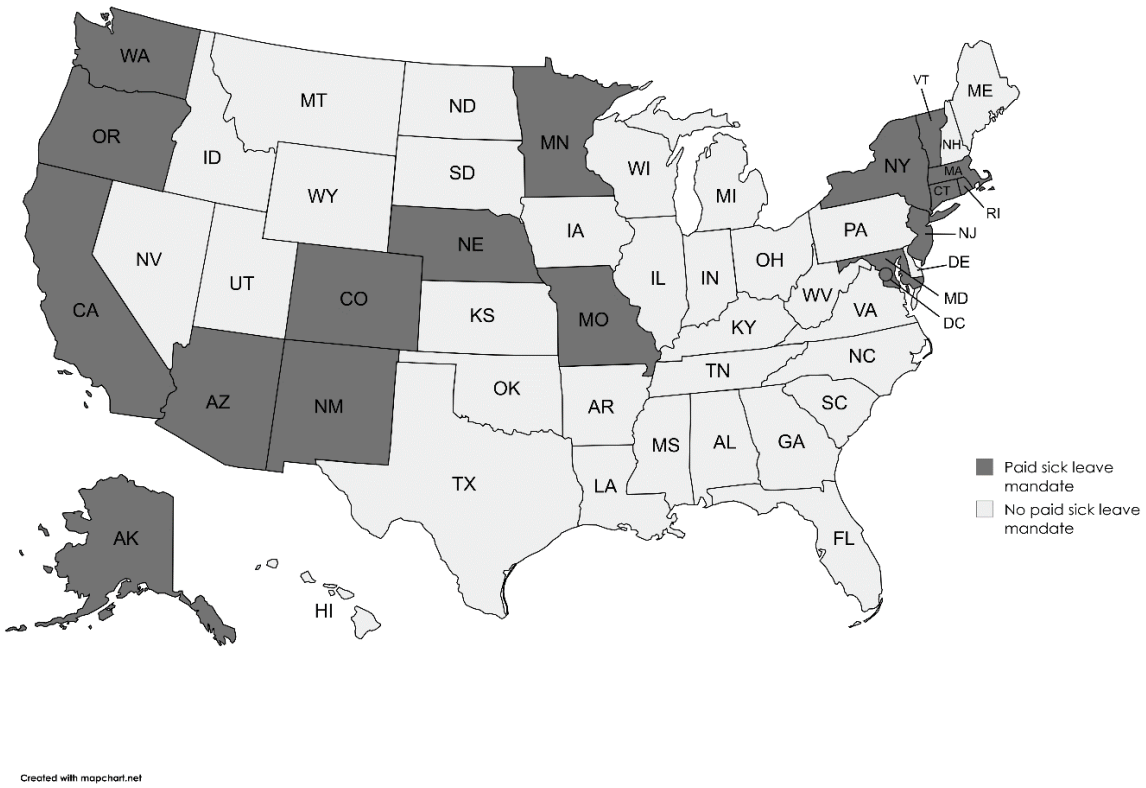
Panel I: Youngest child	-2.50	-13.88**	29.71***
6–17 years old	(4.84)	(6.17)	(6.75)
Pre-treatment mean, paid sick leave mandate states	83.56	504.11	258.71
Percent change	-2.99	-2.75	11.48
Observations	17076	17076	17076

Notes: The sample includes only those with children under age 18 in the household. Each outcome includes childcare related to household children only. The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Standard errors clustered at the state level are reported in parentheses. Percent change is calculated by comparing the coefficient estimate with the pre-treatment mean in PSL adopting states.

***,**,* = statistically different from zero at the 1%, 5%,10% level.

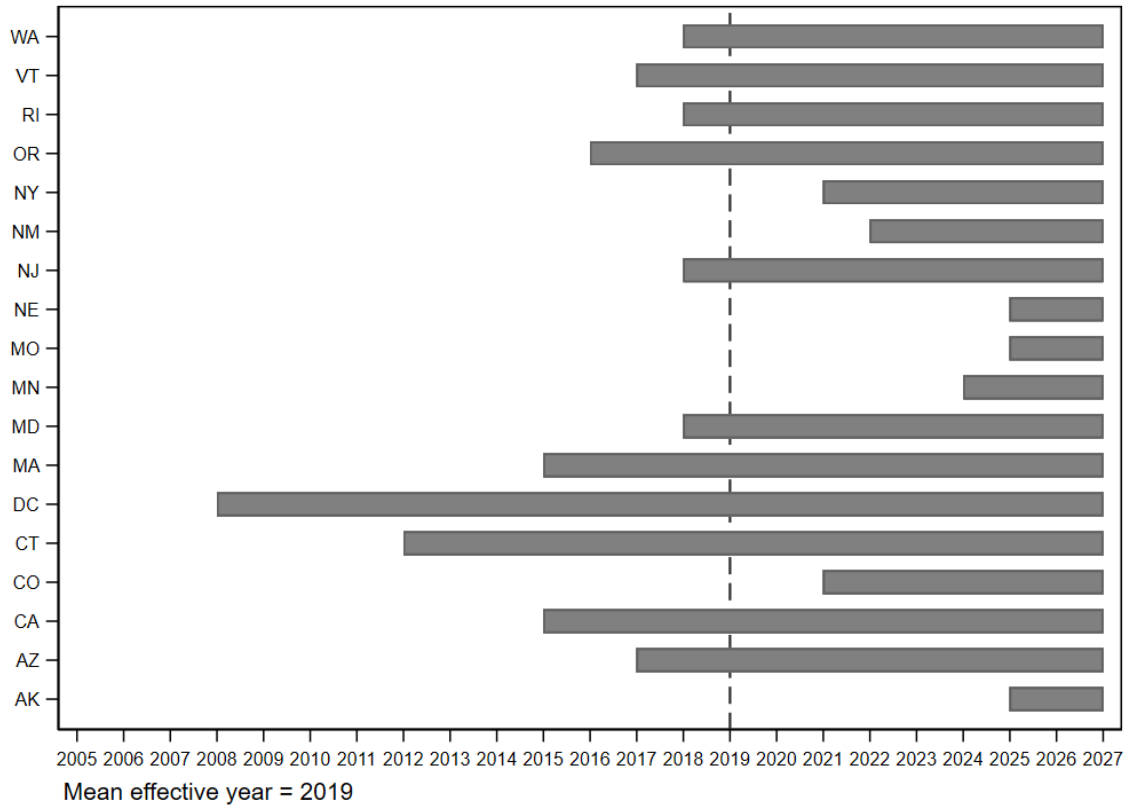
Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Appendix Figure 1A. State paid sick leave mandates adopted or announced by November, 2024: Geographic distribution



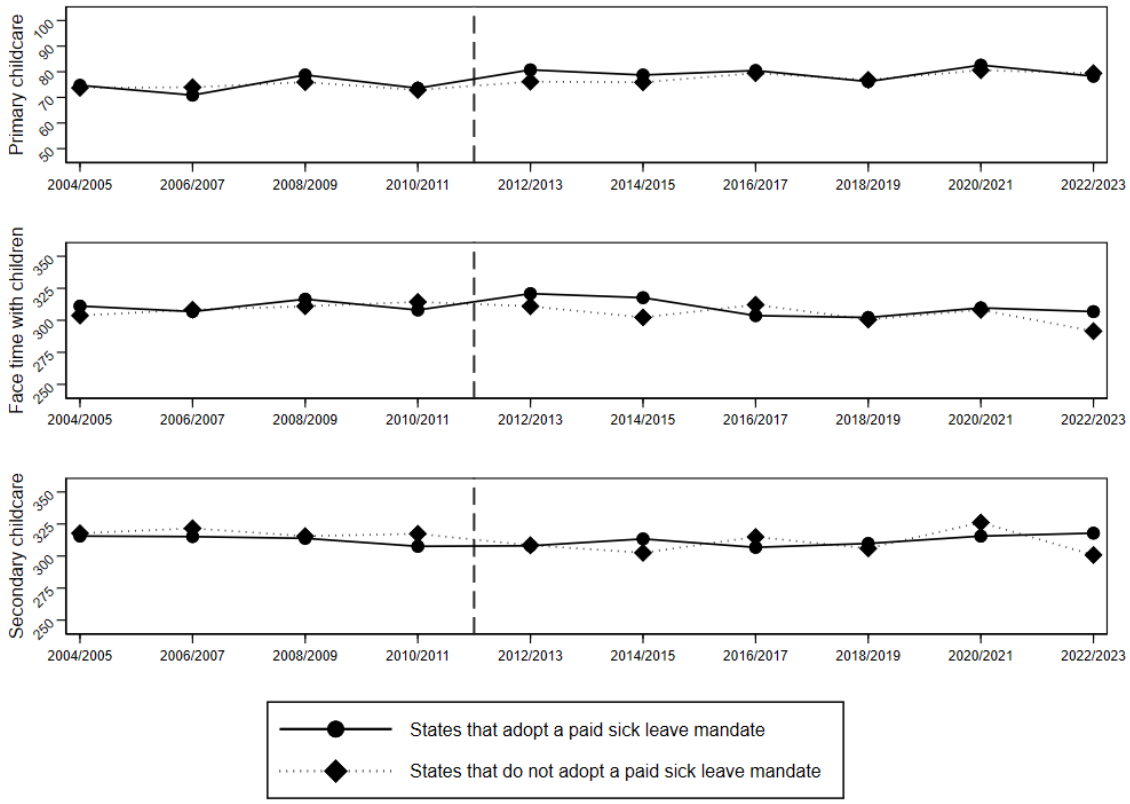
Notes: All state paid sick leave mandates effective or announced by November 2024, the most recent data available at the time of writing. Treatment states (effective dates MM/YY) are as follows: AK (7/2025), AZ (7/2017), CA (7/2015), CO (1/2021), CT (1/2012), DC (5/2008), MA (7/2015), MD (2/2018), MN (1/2024), MO (5/2025), NE (10/2025), NJ (10/2018), NM (7/2022), NY (1/2021), OR (1/2016), RI (7/2018), VT (1/2017), and WA (1/2018). Four states (effective dates MM/YY) have adopted a PTO mandate (NPWF, 2023): Illinois (1/2024), Maine (1/2021), Michigan (3/2019), and Nevada (1/2020). However, none of these states has adopted a PSL mandate. We follow NPWF legal scholars and code the two law types as separate. PTO laws offer limited or no protection against employer retaliation for employees who request or use paid time off; do not limit the employer's ability to require the employee to locate a replacement employee during the period when the employee is on leave; do not offer the protected ability to take leave without advance notice; and impose no limitations on documentation or requirements needed to be granted paid leave. We show in Section 4 that our results are not appreciably different if we code PTO states as having a PSL mandate. See the National Partnership for Women & Families (2025) for details on exclusions, covered dependents, waiting and accrual periods, safe time coverage, and so forth.
Source: National Partnership for Women & Families (2025) and A Better Balance (2025).

Appendix Figure 1B. State paid sick leave mandates adopted or announced by November 2024: Temporal distribution



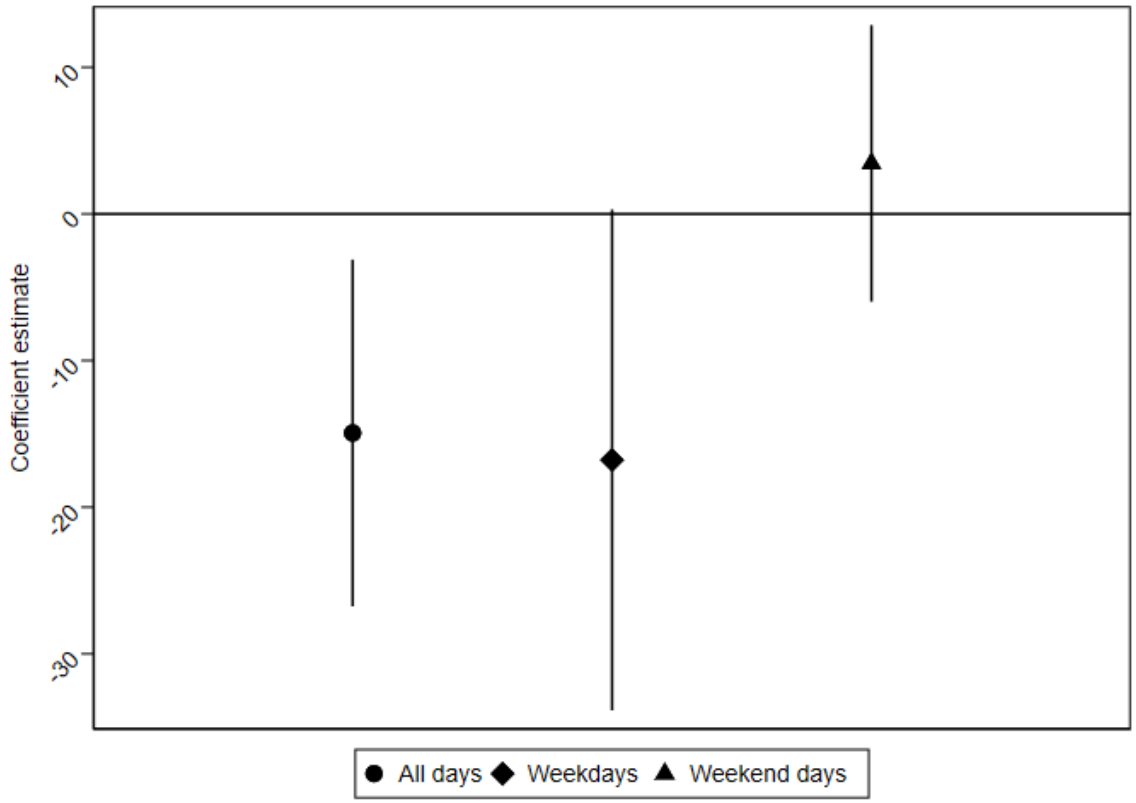
Notes: All state paid sick leave mandates effective or announced by November 2024, the most recent data available at the time of writing. Treatment states (effective dates MM/YY) are as follows: Treatment states (effective dates MM/YY) are as follows: AK (7/2025), AZ (7/2017), CA (7/2015), CO (1/2021), CT (1/2012), DC (5/2008), MA (7/2015), MD (2/2018), MN (1/2024), MO (5/2025), NE (10/2025), NJ (10/2018), NM (7/2022), NY (1/2021), OR (1/2016), RI (7/2018), VT (1/2017), and WA (1/2018). See notes to Appendix Table 1 for additional details on state PSL mandates.
Source: National Partnership for Women & Families (2023) and A Better Balance (2025).

Appendix Figure 2. Trends in childcare outcomes among adults 22–59 years old with children in the household (minutes per average day)



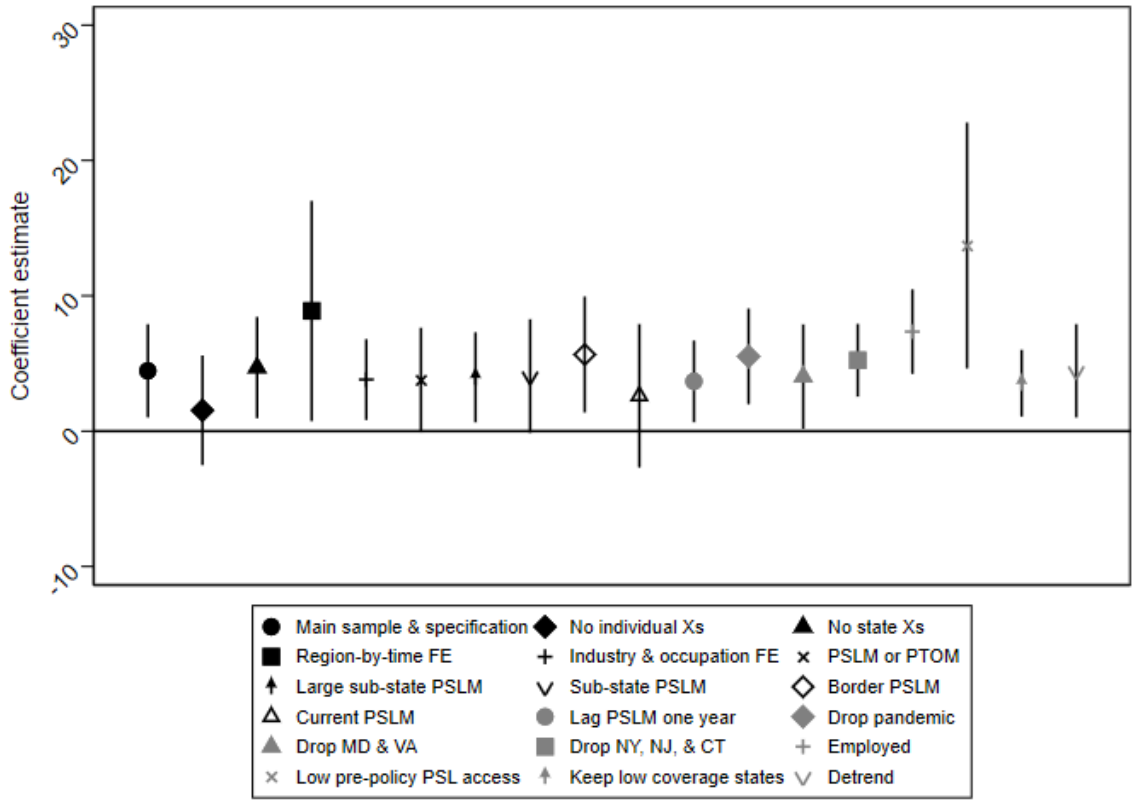
Notes: The sample includes only those with children under age 18 in the household. Each outcome includes childcare related to household children only. The unit of observation is a treatment group (treatment =1 if state adopts a paid sick leave mandate, comparison = 0 if state did not adopt a paid sick leave mandate) in a two-year year bin, data are aggregated from the respondent-state-year level. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Thus, the year 2020 value is not an annual estimate and not strictly comparable. Data are weighted by American Time Use Survey weights.
Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Appendix Figure 3. Effect of a state paid sick leave mandate (lagged two years) on work time among adults 22–59 years old with children in the household (minutes per average day): Importance of day of the week



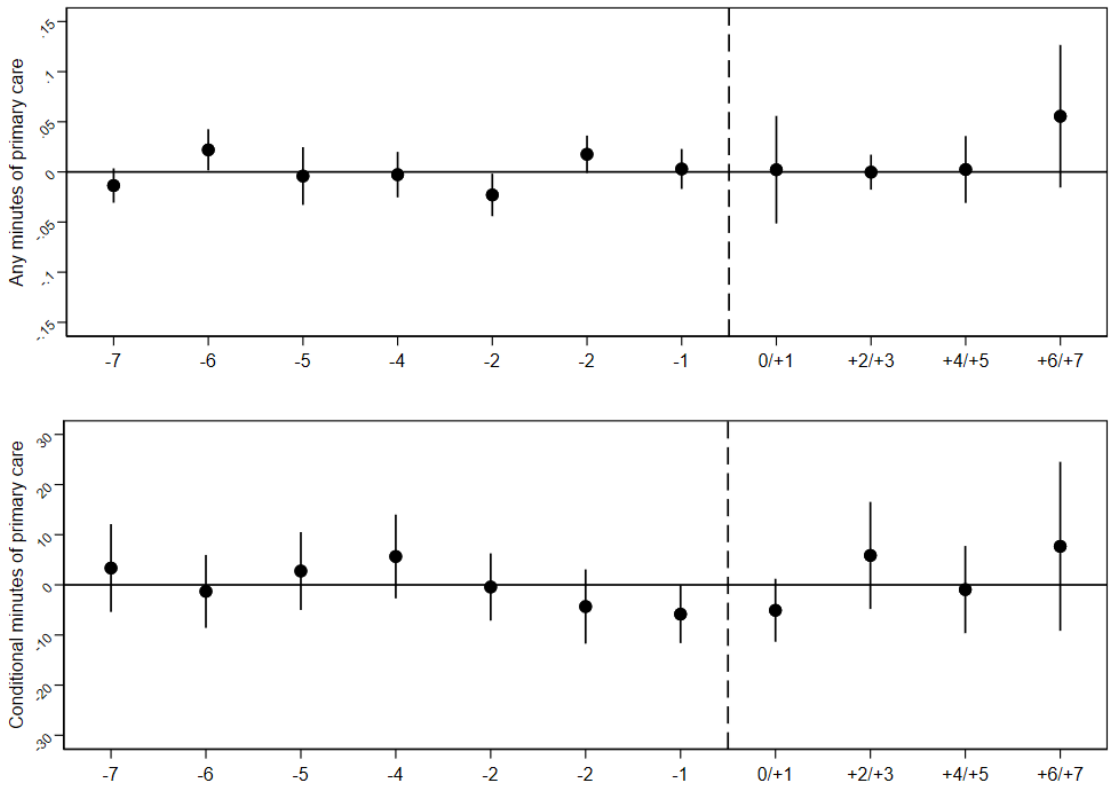
Notes: The sample includes only those with children under age 18 in the household. The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Beta coefficient estimates are reported with shapes and vertical lines report 95% confidence intervals that account for within-state clustering.
Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Appendix Figure 4. Effect of a state paid sick leave mandate (lagged two years) on primary childcare among adults 22–59 years old with children in the household (minutes per average day): Alternative samples and specifications



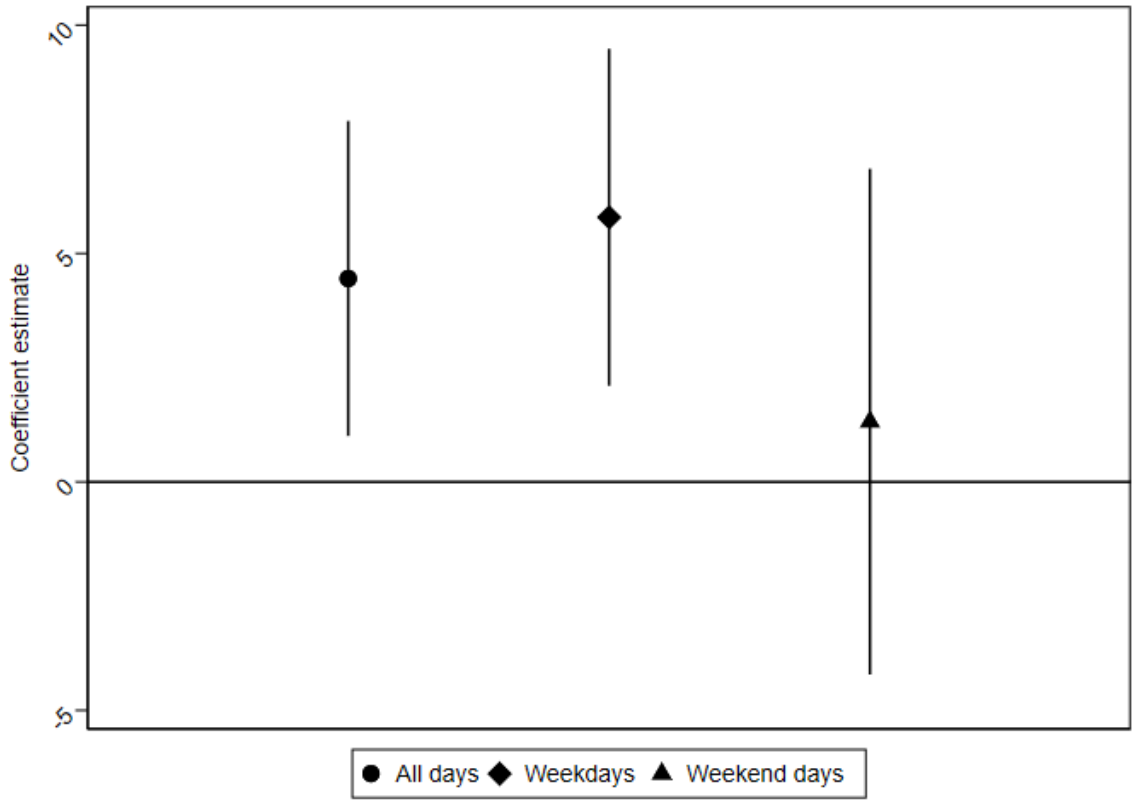
Notes: FE = fixed-effects, PSLM = paid sick leave mandate, and PTOM = paid time off mandate. We use two-digit industry and occupation codes in the specification that includes industry and occupation fixed-effects, restricting the sample to those who are working. When we incorporate sub-state PSLM, we incorporate two cities (Portland, Oregon and Jersey City, New Jersey) that are reported as having a PSLM in A Better Balance (2025) but not in NPWF (2023). The sample includes only those with children under age 18 in the household. Each outcome includes primary childcare related to household children only. The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects unless otherwise noted. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Beta coefficient estimates are reported with shapes and vertical lines report 95% confidence intervals that account for within-state clustering.
Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Appendix Figure 5. Effect of a state paid sick leave mandate on any primary childcare and minutes of primary childcare per average day if any primary childcare among adults 22–59 years old with children in the household using an event-study



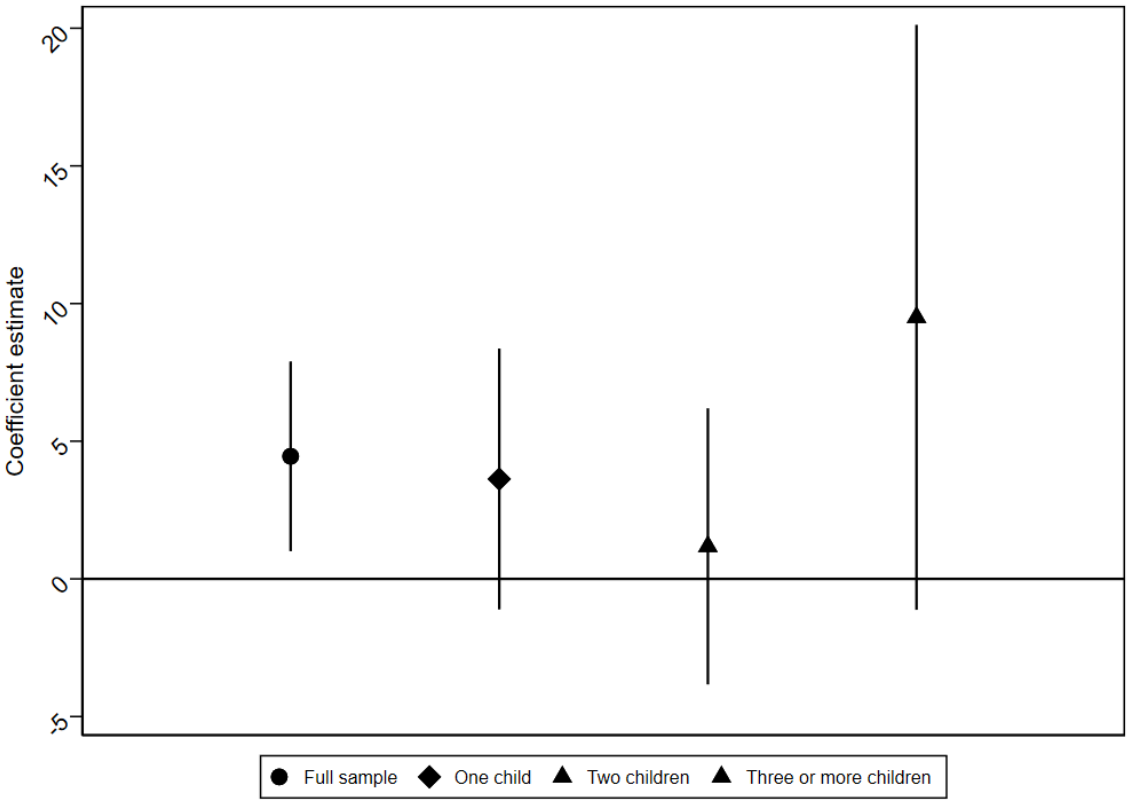
Notes: The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Beta coefficient estimates are reported with black circles and 95% confidence intervals that account for within-state clustering are reported with vertical lines. We impose endpoint restrictions: periods more than seven years pre-event are coded one for the -7 indicator and periods more than seven years post-event are coded one for the +6/+7 indicator. The Gardner (2022) event-study estimator does not have an omitted category. All coefficient estimates are implicitly normalized to the pre-period average. For four states (Alaska, Minnesota, Missouri, and Nebraska) that adopt a mandate after 2023, we code that state in its pre-treatment period (e.g., in 2023, Minnesota is coded as being two years in advance of the mandate being adopted). In unreported analyses, we have i) ignored these states (treating them as never-treated states) and ii) excluded these states from the analysis, results (which are available on request) are not appreciably different.
Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Appendix Figure 6. Effect of a state paid sick leave mandate (lagged two years) on primary childcare among adults 22–59 years old with children in the household (minutes per average day): Importance of day of the week



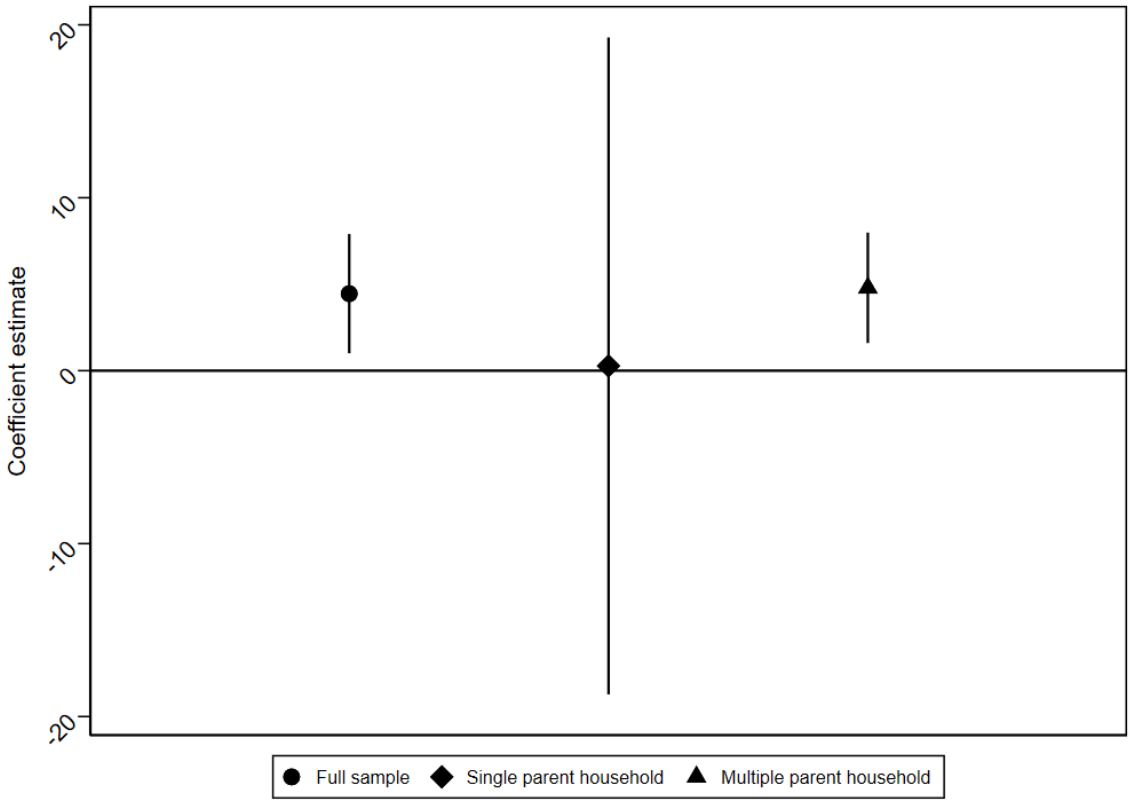
Notes: The sample includes only those with children under age 18 in the household. Each outcome includes childcare related to household children only. The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Beta coefficient estimates are reported with shapes and vertical lines report 95% confidence intervals that account for within-state clustering.
Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Appendix Figure 7. Effect of a state paid sick leave mandate (lagged two years) on primary childcare among adults 22–59 years old with children in the household (minutes per average day): Heterogeneity by number of household children



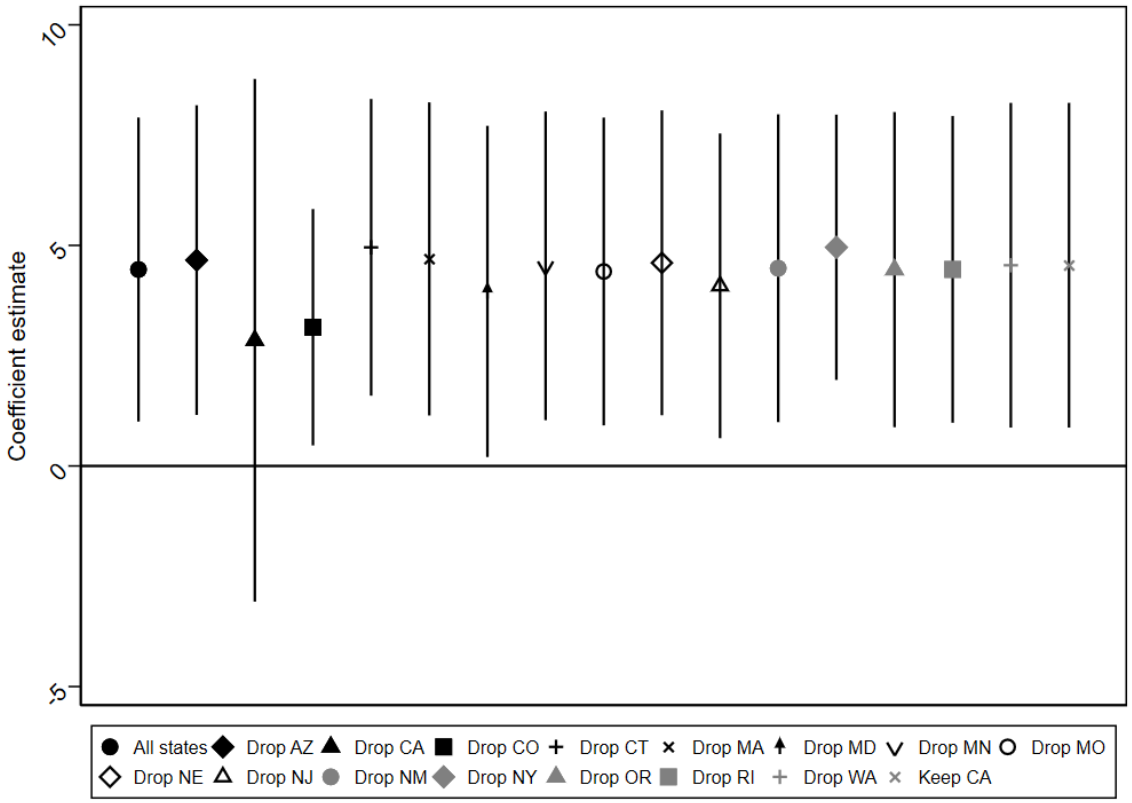
Notes: The sample includes only those with children under age 18 in the household. Each outcome includes childcare related to household children only. The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Beta coefficient estimates are reported with shapes and vertical lines report 95% confidence intervals that account for within-state clustering.
Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Appendix Figure 8. Effect of a state paid sick leave mandate (lagged two years) on primary childcare among adults 22–59 years old with children in the household (minutes per average day): Heterogeneity by number of household adults



Notes: The sample includes only those with children under age 18 in the household. Each outcome includes childcare related to household children only. The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Beta coefficient estimates are reported with shapes and vertical lines report 95% confidence intervals that account for within-state clustering.
Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Appendix Figure 9. Effect of a state paid sick leave mandate (lagged two years) on primary childcare among adults 22–59 years old with children in the household (minutes per average day): Leave-one-out analysis and keeping only California as the treated state



Notes: The sample includes only those with children under age 18 in the household. Each outcome includes childcare related to household children only. The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Beta coefficient estimates are reported with shapes and vertical lines report 95% confidence intervals that account for within-state clustering.
Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Appendix Table 1. States that do and do not adopt or announce a paid sick leave mandate by November 2024, and inclusion in the main analysis sample

States that adopt or announce a paid sick leave mandate (effective month/effective year)
Included in the main analysis sample:
Arizona (7/2017)
California (7/2015)
Colorado (1/2021)
Connecticut (1/2012)
Massachusetts (7/2015)
Maryland (2/2018)
Minnesota (1/2024)
Missouri (5/2025)
Nebraska (10/2025)
New Mexico (7/2022)
New York (1/2021)
New Jersey (10/2018)
Oregon (1/2016)
Rhode Island (7/2018)
Washington (1/2018)
Not included in the main analysis sample:┼
Alaska (7/2025)
District of Columbia (5/2008)
Vermont (1/2017)
States that do not adopt or announce a paid sick leave mandate
Included in the main analysis sample:
Alabama, Arkansas, Florida, Georgia, Iowa, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maine, Michigan, Mississippi, North Carolina, North Dakota, New Hampshire, Nevada, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Wisconsin, and West Virginia
Not included in the main analysis sample:┼
Delaware, Hawaii, Montana, and Wyoming

Source: National Partnership for Women & Families (2023) and A Better Balance (2025).
┼Excluded from the main analysis sample due to small sample sizes.

Appendix Table 2. Sample sizes by years-to-state paid sick leave mandate for primary childcare among adults 22–59 years old with children in the household (minutes per average day

Years to state paid sick leave mandate	Variables: Primary child care and facetime with children	Variable: Secondary childcare
-7	1,720	1,434
-6	1,721	1,428
-5	1,494	1,238
-4	1,439	1,193
-3	1,342	1,113
-2	1,221	1,008
-1	1,175	961
0	997	830
+1	948	800
+2	894	743
+3	683	558
+4	638	537
+5	558	472
+6	375	305
+7	538	442

Notes: Data are trimmed in event time for the treatment group.
Source: 2004–2023 American Time Use Survey (Flood et al. 2023).

Appendix Table 3. Detailed ATUS activity codes used for time use outcomes

Activity	Activity codes and explanations
Primary childcare to household children	030100, 030200, 030300. We do not include travel related to caring for and helping household children in this measure. If a child is sick, they might stay home from school, and thus travel time would decrease if parents rather than buses are the primary form of transit; however, other childcare time would increase. Conversely, parents may increase travel time if they are taking their children to healthcare appointments.
Routine and health childcare (sub-category of primary childcare to household children)	030101, 030109, 030301, 030302, 030303, 030399.
Educational childcare (sub-category of primary childcare to household children)	030201, 030202, 030203, 030204, 030299.
Other childcare (sub-category of primary childcare to household children)	030102, 030103, 030104, 030105, 030106, 030107, 030108, 030110, 030111, 030112, 030199.
Face time with children	All activities with household children under age 18 excluding main and other job work time, work-related activities, commuting, and travel related to work-related activities, i.e., 050100, 050200, 180501, 180502.
Secondary childcare	All secondary childcare for household children under age 13 excluding main and other job work time, work-related activities, commuting, travel related to work-related activities, and sleeping, primary childcare, and travel related to primary childcare. This variable is not recorded when all children under age 13 are sleeping during an activity.
Work	050100, 050200, 180501, 180502.
Household production	020100, 020200,020300,020400, 020500, 020600, 020700, 200800, 020901, 020902, 020905, 020999, 029999, 180200
Sleep	010100
Leisure	120000,130000,181200,181300

Source: 2004–2023 American Time Use Survey (Flood et al. 2023).

Appendix Table 4. Summary statistics for adults 22–59 years old with children in the household

Sample:	All states	States that adopt a PSL, pre-policy	States that do not adopt a PSL
Primary childcare (min/day)	76.8	76.8	76.5
Face time with children (min/day)	307.9	309.6	306.3
Secondary childcare (min/day)	312.7	310.8	313.0
Household activities (min/day)	118.1	119.3	116.5
Sleep (min/day)	510.5	509.4	508.9
Leisure (min/day)	234.9	233.0	236.7
State-level characteristics			
PSL mandate (lagged two years)	0.07	0	0
Paid family and medical leave mandate*	0.16	0.33	0
Paid time off mandate	0.01	0	0.01
Poverty rate*	12.9	12.6	13.4
Population*	13940232	15769030	11700548
Individual-level characteristics			
Male**	0.46	0.47	0.45
Female	0.54	0.53	0.55
Age¥	38.7	38.7	38.5
White**	0.80	0.81	0.81
Non-white	0.20	0.19	0.19
Non-Hispanic**	0.78	0.74	0.81
Hispanic	0.22	0.26	0.19
Not married**	0.25	0.24	0.25
Married	0.75	0.76	0.75
Not cohabiter**	0.95	0.95	0.95
Cohabiter	0.05	0.05	0.05
Less than high school**	0.12	0.13	0.11
High school	0.27	0.25	0.29
Some college, no degree	0.25	0.26	0.25
College degree	0.22	0.22	0.22
Graduate degree	0.14	0.14	0.12
Number of children under 18 years old in household	1.92	1.94	1.91
Any children under 1 year old in household**	0.10	0.10	0.10
Any children 1–5 years old in household	0.37	0.37	0.37
Any children 6–17 years old in household	0.54	0.53	0.53
Resides in metro area**	0.85	0.90	0.81
Resides outside a metro area	0.15	0.096	0.19
Observations┼	78080	24160	47909

Notes: PSL = paid sick leave. The sample includes only those with children under age 18 in the household, while the sample for secondary childcare includes only those with children under age 13 in the household. Each outcome includes childcare related to household children only. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights.

*Varies at the annual level due to data availability.

**Omitted category in regression.

¥We also control for age-squared in regressions.

┼The 'all states' observation count is greater than the sum of the observation count in the 'states that adopt a PSL, pre-policy' and 'states that do not adopt a PSL' as we drop observation counts in states that adopt a PSL mandate after the mandate is effective in the former column.

Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Appendix Table 5. Effect of a state paid sick leave mandate (lagged two years) on any time devoted to work among adults 22–59 years old with children in the household (any minutes per average day)

Sample:	Women and men	Women	Men
Panel A: All	-0.01	-0.01	-0.01
	(0.01)	(0.01)	(0.01)
Pre-treatment mean, paid sick leave mandate states	0.55	0.45	0.65
Percent change	-1.82	-2.22	-1.54
Observations	78080	45693	32387
Panel B: Youngest child	-0.02	-0.04***	0.01
0–5 years old	(0.01)	(0.02)	(0.02)
Pre-treatment mean, paid sick leave mandate states	0.51	0.39	0.65
Percent change	-3.92	-10.26	1.54
Observations	36331	21020	15311
Panel C: Youngest child	0.00	0.03**	-0.02
6–17 years old	(0.01)	(0.01)	(0.02)
Pre-treatment mean, paid sick leave mandate states	0.57	0.50	0.65
Percent change	0.00	6.00	-3.08
Observations	41749	24673	17076
Panel D: No college degree	-0.00	-0.00	0.01
	(0.01)	(0.02)	(0.02)
Pre-treatment mean, paid sick leave mandate states	0.50	0.41	0.61
Percent change	0.00	0.00	1.64
Observations	46168	27393	18775
Panel E: No college degree,	-0.01	-0.04**	0.05*
youngest child 0–5 years old	(0.01)	(0.02)	(0.03)
Pre-treatment mean, paid sick leave mandate states	0.47	0.35	0.60
Percent change	-2.13	-11.43	8.33
Observations	20998	12367	8631
Panel F: No college degree,	0.01	0.03	-0.03
youngest child 6–17 years old	(0.01)	(0.02)	(0.02)
Pre-treatment mean, paid sick leave mandate states	0.53	0.46	0.61
Percent change	1.89	6.52	-4.92
Observations	25170	15026	10144

Notes: The sample includes only those with children under age 18 in the household. The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Standard errors clustered at the state level are reported in parentheses. Percent change is calculated by comparing the coefficient estimate with the pre-treatment mean in PSL adopting states.

***, **, * = statistically different from zero at the 1%, 5%, 10% level.

Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Appendix Table 6. Effect of a state paid sick leave mandate (lagged two years) on childcare outcomes among adults 22–59 years old with children in the household and no college degree (minutes per average day)

Outcome:	Primary childcare	Face time with children	Secondary childcare
Women and men			
Panel A: All	1.83	3.90	-2.89
	(2.16)	(6.63)	(7.83)
Pre-treatment mean, paid sick leave mandate states	68.37	307.40	314.22
Percent change	2.68	1.27	-0.92
Observations	46168	46168	37826
Panel B: Youngest child	15.95**	-3.21	-20.65**
0–5 years old	(6.21)	(10.97)	(9.92)
Pre-treatment mean, paid sick leave mandate states	101.89	384.75	334.52
Percent change	15.65	-0.83	-6.17
Observations	20998	20998	20998
Panel C: Youngest child	-8.34**	10.72	20.17**
6–17 years old	(3.37)	(6.75)	(10.20)
Pre-treatment mean, paid sick leave mandate states	39.09	239.81	286.06
Percent change	-21.34	4.47	7.05
Observations	25170	25170	16828
Women			
Panel D: All	4.97	-3.49	-5.56
	(3.76)	(7.89)	(11.56)
Pre-treatment mean, paid sick leave mandate states	86.84	365.30	377.86
Percent change	5.72	-0.96	-1.47
Observations	27393	27393	22422
Panel E: Youngest child	20.73*	-5.18	-25.68**
0–5 years old	(11.18)	(16.47)	(12.65)
Pre-treatment mean, paid sick leave mandate states	127.68	461.46	405.76
Percent change	16.24	-1.12	-6.33
Observations	12367	12367	12367
Panel F: Youngest child	-9.51**	-8.70	10.76
6–17 years old	(4.65)	(11.29)	(18.98)
Pre-treatment mean, paid sick leave mandate states	50.58	279.93	338.33
Percent change	-18.80	-3.11	3.18
Observations	15026	15026	10055
Men			
Panel G: All	-2.48	13.25	-1.15
	(3.00)	(10.32)	(15.27)
Pre-treatment mean, paid sick leave mandate states	47.76	242.75	243.22
Percent change	-5.19	5.46	-0.47
Observations	18775	18775	15404
Panel H: Youngest child	4.18	-2.76	-16.58
0–5 years old	(7.95)	(25.24)	(18.31)
Pre-treatment mean, paid sick leave mandate states	72.56	297.54	253.54
Percent change	5.76	-0.93	-6.54

Observations	8631	8631	8631
Panel I: Youngest child	-5.55	32.36**	29.86*
6–17 years old	(3.81)	(14.40)	(17.83)
Pre-treatment mean, paid sick leave mandate states	26.47	195.73	229.26
Percent change	-20.97	16.53	13.02
Observations	10144	10144	6773

Notes: The sample for primary childcare and face time with children includes only those with children under age 18 in the household, while the sample for secondary childcare includes only those with children under age 13 in the household. Each outcome includes childcare related to household children only. The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Standard errors clustered at the state level are reported in parentheses. Percent change is calculated by comparing the coefficient estimate with the pre-treatment mean in PSL adopting states.
***, **, * = statistically different from zero at the 1%, 5%, 10% level.
Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Appendix Table 7. Effect of a state paid sick leave mandate (lagged two years) on specific types of primary childcare among adults 22–59 years old with children in the household and no college degree (minutes per average day)

Outcome:	Total	Routine	Education	Other
Women and men				
Panel A: All	1.83	-0.53	0.36	1.99
	(2.16)	(1.77)	(0.73)	(1.53)
Pre-treatment mean, paid sick leave mandate states	68.37	32.39	6.84	29.14
Percent change	2.68	-1.64	5.26	6.83
Observations	46168	46168	46168	46168
Panel B: Youngest child	15.95**	2.17	3.19*	10.58***
0–5 years old	(6.21)	(4.17)	(1.80)	(2.67)
Pre-treatment mean, paid sick leave mandate states	101.89	53.91	5.82	42.16
Percent change	15.65	4.03	54.81	25.09
Observations	20998	20998	20998	20998
Panel C: Youngest child	-8.34**	-3.96**	-1.55	-2.83
6–17 years old	(3.37)	(1.59)	(1.36)	(2.05)
Pre-treatment mean, paid sick leave mandate states	39.09	13.59	7.74	17.76
Percent change	-21.34	-29.14	-20.03	-15.93
Observations	25170	25170	25170	25170
Women				
Panel D: All	4.97	1.33	-0.04	3.68*
	(3.76)	(2.94)	(1.25)	(2.02)
Pre-treatment mean, paid sick leave mandate states	86.84	43.56	9.04	34.24
Percent change	5.72	3.05	-0.44	10.75
Observations	27393	27393	27393	27393
Panel E: Youngest child	20.73*	4.72	2.30	13.70***
0–5 years old	(11.18)	(6.76)	(2.97)	(4.57)
Pre-treatment mean, paid sick leave mandate states	127.68	70.72	7.79	49.17
Percent change	16.24	6.67	29.53	27.86
Observations	12367	12367	12367	12367
Panel F: Youngest child	-9.51**	-3.45	-1.46	-4.60*
6–17 years old	(4.65)	(2.27)	(2.30)	(2.68)
Pre-treatment mean, paid sick leave mandate states	50.58	19.44	10.15	20.98
Percent change	-18.80	-17.75	-14.38	-21.93
Observations	15026	15026	15026	15026
Men				
Panel G: All	-2.48	-3.20*	1.17	-0.45
	(3.00)	(1.67)	(0.94)	(2.30)
Pre-treatment mean, paid sick leave mandate states	47.76	19.92	4.39	23.44
Percent change	-5.19	-16.06	26.65	-1.92
Observations	18775	18775	18775	18775
Panel H: Youngest child	4.18	-2.50	3.81**	2.86
0–5 years old	(7.95)	(4.13)	(1.93)	(4.55)
Pre-treatment mean, paid sick leave mandate states	72.56	34.79	3.58	34.20
Percent change	5.76	-7.19	106.42	8.36
Observations	8631	8631	8631	8631

Panel I: Youngest child	-5.55	-4.41*	-0.58	-0.55
6–17 years old	(3.81)	(2.29)	(1.08)	(2.21)
Pre-treatment mean, paid sick leave mandate states	26.47	7.16	5.09	14.22
Percent change	-20.97	-61.59	-11.39	-3.87
Observations	10144	10144	10144	10144

Notes: The sample includes only those with children under age 18 in the household. Each outcome includes childcare related to household children only. The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Standard errors clustered at the state level are reported in parentheses. Percent change is calculated by comparing the coefficient estimate with the pre-treatment mean in PSL adopting states.

***,**,* = statistically different from zero at the 1%, 5%,10% level.

Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Appendix Table 8. Effect of a state paid sick leave mandate (lagged two years) on other time-use outcomes among adults 22–59 years old with children in the household and no college degree (minutes per average day)

Outcome:	Household activities	Sleep	Leisure
Women and men			
Panel A: All	-4.70	0.36	4.92
	(3.61)	(3.02)	(6.24)
Pre-treatment mean, paid sick leave mandate states	124.26	520.35	245.84
Percent change	-3.78	0.07	2.00
Observations	46168	46168	46168
Panel B: Youngest child	-5.84	12.69**	-8.40
0–5 years old	(5.14)	(4.98)	(5.93)
Pre-treatment mean, paid sick leave mandate states	123.30	522.15	237.45
Percent change	-4.74	2.43	-3.54
Observations	20998	20998	20998
Panel C: Youngest child	-2.44	-9.59**	14.40*
6–17 years old	(4.67)	(4.47)	(8.06)
Pre-treatment mean, paid sick leave mandate states	125.11	518.77	253.17
Percent change	-1.95	-1.85	5.69
Observations	25170	25170	25170
Women			
Panel D: All	-0.92	0.63	-18.42***
	(4.52)	(4.27)	(7.03)
Pre-treatment mean, paid sick leave mandate states	162.43	527.37	230.21
Percent change	-0.57	0.12	-8.00
Observations	27393	27393	27393
Panel E: Youngest child	-6.55	6.69	-14.12
0–5 years old	(5.50)	(6.39)	(13.31)
Pre-treatment mean, paid sick leave mandate states	163.76	534.16	224.22
Percent change	-4.00	1.25	-6.30
Observations	12367	12367	12367
Panel F: Youngest child	7.87	-5.63	-26.11***
6–17 years old	(6.55)	(7.44)	(8.87)
Pre-treatment mean, paid sick leave mandate states	161.26	521.33	235.54
Percent change	4.88	-1.08	-11.09
Observations	15026	15026	15026
Men			
Panel G: All	-9.04**	-3.13	30.72***
	(4.30)	(4.91)	(8.30)
Pre-treatment mean, paid sick leave mandate states	81.65	512.51	263.29
Percent change	-11.07	-0.61	11.67
Observations	18775	18775	18775
Panel H: Youngest child	-5.81	8.07	4.57
0–5 years	(8.33)	(8.52)	(12.03)
Pre-treatment mean, paid sick leave mandate states	77.30	508.49	252.50
Percent change	-7.52	1.59	1.81

Observations	8631	8631	8631
Panel I: Youngest child	-12.32**	-13.81*	51.19***
6–17 years	(5.81)	(7.77)	(11.78)
Pre-treatment mean, paid sick leave mandate states	85.38	515.95	272.55
Percent change	-14.43	-2.68	18.78
Observations	10144	10144	10144

Notes: The sample includes only those with children under age 18 in the household. Each outcome includes childcare related to household children only. The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Standard errors clustered at the state level are reported in parentheses. Percent change is calculated by comparing the coefficient estimate with the pre-treatment mean in PSL adopting states.

***, **, * = statistically different from zero at the 1%, 5%, 10% level.

Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Appendix Table 9. Effect of a state paid sick leave mandate (lagged two years) on any primary childcare (average day) and primary childcare (conditional on providing any care, minutes per average day) among adults 22–59 years old with children in the household

Outcome:	Primary childcare (any)	Primary childcare (minutes if minutes>0)
PSL mandate	0.01	3.74
	(0.01)	(2.89)
Pre-treatment mean, paid sick leave mandate states	0.64	119.14
Percent change	1.56	3.14
Observations	78080	51522

Notes: The sample includes only those with children under age 18 in the household. Each outcome includes childcare related to household children only. The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Standard errors clustered at the state level are reported in parentheses. Percent change is calculated by comparing the coefficient estimate with the pre-treatment mean in PSL adopting states.

***, **, * = statistically different from zero at the 1%, 5%, 10% level.

Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).

Appendix Table 10. Effect of a state paid sick leave mandate (lagged two years) on primary childcare among adults 22–59 years old with children in the household (minutes per average day) using alternative estimators

Outcome:	Coefficient estimate (standard error)
Gardner (2022)	4.45**
	(1.76)
Percent change	5.80
Borusyak et al. (2025)	8.59**
	(4.08)
Percent change	11.20
Callaway and Sant'Anna (2021)┼	1.49
	(2.86)
Percent change	1.82
Wooldridge (2023)	5.22***
	(1.25)
Percent change	6.81
Stacked difference-in-differences┼┼	5.45*
	(3.19)
Percent change	6.97
Two-way fixed-effects difference-in-differences	4.61**
	(1.80)
Percent change	6.01
Pre-treatment mean, paid sick leave mandate states	76.70
Observations	78080

Notes: The sample includes only those with children under age 18 in the household. Each outcome includes childcare related to household children only. The regression includes state-level variables, individual characteristics, state fixed-effects, and time (month-year) fixed-effects. The unit of observation is a respondent in a state in a year. Diary days from March 18th–May 9th, 2020 are excluded, because Census Bureau call centers were closed due to the COVID-19 pandemic. Data are weighted by American Time Use Survey weights. Regressions are estimated with OLS. We use a two-step DID procedure proposed by Gardner (2022). Standard errors clustered at the state level are reported in parentheses. Percent change is calculated by comparing the coefficient estimate with the pre-treatment mean in PSL adopting states.

***, **, * = statistically different from zero at the 1%, 5%, 10% level.

┼There are no time-varying covariates included in the Callaway and Sant'Anna (2021) procedure.

┼┼Cohorts with less than 700 treated observations over the full study periods are excluded due to small sample sizes. The specification replaces state fixed-effects with cohort-by-state fixed-effects and time fixed-effects with cohort-by-time fixed-effects.

Source: 2004–2023 American Time Use Survey (Flood et al. 2023); A Better Balance (2025).