Public Paid Leave and Private Benefits: Evidence on Crowd-Out and Welfare

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Abstract

How do firms respond to state-level paid family and medical leave (PFML) programs financed by payroll taxes? Over the last decade, 10 U.S. states and D.C. have implemented PFML, expanding access to paid leave for caregiving needs. Using 2009–2023 firm-job level data from the National Compensation Survey, we estimate event-study and difference-in-differences models to assess how public PFML crowds out private benefits. We find clear evidence of fringe benefit crowd-out through public paid leave programs: family leave declines by five percentage points, personal leave by seven, and vacation by four. PFML raises welfare if employees value benefits at least $0.95 per dollar.

Keywords: Family leave, parental leave, medical leave, social insurance, entitlement programs, fringe benefits, crowd-out

JEL classification: I12, I18, J22, J28, J32, J38, J88, H75

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1 Introduction

Whether public programs crowd out employer-provided private benefits is a central question in public economics. Under standard assumptions, theory predicts that firms reduce the voluntary provision of substitutable benefits when public programs expand, thereby reducing potential welfare gains of public program provision. Empirical economic research has therefore examined the crowding out and crowding in of private benefits in response to public programs, most prominently in the context of employer-sponsored health insurance in the United States (Cutler and Gruber, 1996; Lo Sasso and Buchmueller, 2004; Clemens, 2015). Further, economic research has identified public insurance provision as a reason for the low take-up rates of private long-term care insurance (Sloan and Norton, 1997; Brown and Finkelstein, 2008; Braun et al., 2019) and private disability insurance (Autor et al., 2014; Cabral and Cullen, 2019; Cao et al., 2026). Moreover, economic research has identified statistically significant substitution effects between sick leave and disability insurance (Staubli, 2011), disability insurance and social assistance (Borghans et al., 2014) or unemployment and TANF benefit receipt (Leung and O'Leary, 2020).[1]

This paper is the first to measure crowd-out in response to public, paid family and medical leave (PFML) programs. We focus on the United States, one of the few developed countries that does not offer such paid leave universally (Pichler et al., 2026). Since 2017, ten U.S. states and D.C. have implemented PFML, funded by payroll taxes and enabling workers to take paid leave for their own illness or to care for relatives. In particular, we examine in a reduced-form causal-effects framework how and whether firms adjust their voluntary provision of paid leave and other fringe benefits in response to these new public programs. Obviously, if firms reduce their private PMFL offerings, workers' utility and welfare from these new public programs are diminished. Alternatively, if firms use private paid leave to differentiate jobs and attract labor, the introduction of a state-run program may induce firms to *bolster* fringe benefits—a phenomenon referred to as crowding-in or "job up-scaling" (Maclean et al., 2025).

herein are those of the authors and do not necessarily reflect the views of the funding institutions. Neither our employers nor we have any relevant or material financial interests related to the research described in this paper. We take responsibility for all remaining errors in and shortcomings of the paper.

[1] Stepner (2019) find *positive* spillover effects between private short-term and public long-term disability insurance. The mechanism is short-term disability insurance to provide benefits during the waiting period for long-term disability insurance in Canada.

This paper makes use of firm–job level data from the Bureau of Labor Statistics' National Compensation Survey (NCS), the only nationally representative dataset that provides detailed information on employer-provided fringe benefits in the U.S. Exploiting the NCS rotating panel from 2009 to 2023, we estimate event-study and difference-in-differences models to assess how firms modify their benefit offerings following the introduction of state PFML programs. Importantly, unlike employer-sponsored health insurance, employer-provided paid leave benefits do *not* affect eligibility for public PFML, making this setting particularly well-suited to study firm responses to public insurance expansions.

We find little evidence that firms reduce employer-provided short-term disability insurance (STDI) or long-term disability insurance (LTDI) after states introduce universal medical leave benefits. One explanation is the relatively low employer cost per hour worked for these benefits (STDI: \$0.04; LTDI: \$0.07). Firms may also use these insurance products to attract workers. In addition, medical leave coverage—also called "temporary / short-term disability insurance" or "long-term sick leave"—may improve worker productivity and retention following health shocks (Powell and Seabury, 2018; Marie and Vall-Castello, 2023).

By contrast, we find strong evidence for crowding out of firm-provided family leave benefits in response to publicly provided paid family leave. After states introduce PFML, the share of jobs with family leave decreases significantly by five percentage points off a relatively low baseline of 16%. We also find that firms reduce (substitutive) paid personal leave by seven percentage points and paid vacation by four percentage points. These paid leave benefits are typically directly provided by self-insured employers and are relatively costly: paid vacation costs firms \$1.24 per employee hour, while paid personal leave costs \$0.22 per employee hour. Our heterogeneity analyses show that medium-sized firms drive these crowding-out effects. Smaller firms rarely offer such costly benefits, while larger firms may continue to provide them after public insurance programs expand, likely to attract and retain workers.

In the final part of the paper, we assess the welfare effects of public PFML by exploiting our causally elicited reduced-form crowding-out effects, calibrated baseline risks, and expected worker benefits under universal coverage. Fringe benefit crowd-out matters quantitatively and economically for welfare conclusions, especially when broad, fungible, and valuable paid time off benefits are crowded out. Further, baseline coverage rates in the absence of public programs matter. Applying bounds on payroll-tax pass-through rates, we find that, on aver-

age, employees have to value a marginal public PFML dollar by at least $0.95 to make PFML welfare improving. This valuation very likely applies to employees who earn low wages and are at a high risk of work disability. It also likely applies to (future) parents, especially in small and large firms, respectively, who do not experience benefit crowd-out.

Our findings contribute to three strands of the economics literature. First, we add to the research on the crowding out of private workplace benefits by public programs, see above and Cutler and Gruber (1996); Lo Sasso and Buchmueller (2004); Clemens (2015). To date, this literature has focused on health insurance. To our knowledge, this is the first paper to show paid leave benefit crowd-out through public programs. Second, as also discussed, we contribute to the literature on interaction effects in social insurance (Staubli, 2011; Borghans et al., 2014; Fevang et al., 2017; Leung and O'Leary, 2020) by showing that such interactions also operate through firms' benefit provision. Third, our results inform the literature on employer mandates and paid leave policies (Summers, 1989; Gruber, 1994; Ruhm, 1998; Buchmueller et al., 2011; Maclean et al., 2025) by documenting how state-administered expansions of paid leave reshape the composition of employer-provided benefits.

2 Paid Leave in the United States

FMLA. The Family and Medical Leave Act (FMLA) of 1993 is the primary federal law governing leave from work. The Act grants eligible employees in firms with at least 50 workers the right to take up to 12 weeks of job-protected, but unpaid, leave for childbirth, their own illness, or the illness of a family member (Waldfogel, 1999; Thomas, 2025). Eligibility requires at least 1,250 hours of work in the previous year. Due to these restrictions, a substantial share of the U.S. workforce——close to half according to some estimates—is not covered by FMLA (Jorgensen and Appelbaum, 2014). Several states have therefore enacted additional leave provisions, such as the California Family Rights Act (CFRA) (Civil Rights Department, 2024).

2.1 State-Level TDI, Workers Compensation, and Paid Sick Leave Mandates

TDI and WC. In addition to FMLA, nearly all states mandate Workers' Compensation (WC) insurance, which provides paid leave and medical coverage for work-related injuries and illnesses (Cabral et al., 2022). Several states also operate Temporary Disability Insurance (TDI)

programs covering non–work-related health shocks. Five states introduced TDI programs in the 1940s[2]: Rhode Island (1942), California (1946), New Jersey (1948), and New York (1949); and Puerto Rico and Hawaii implemented these programs in the 1960s. TDI typically provides wage replacement for up to 26 weeks of sickness (California, up to 52 weeks) and typically 12 weeks pre- and post-childbirth (SSA, 2016, 2023). State agencies administer these programs and finance them through payroll deductions. In our main analysis, to focus on clean variation, we disregard all these TDI states.

Employer Mandates for Paid Sick Leave. At the time of writing, 18 states and the District of Columbia have employer mandates for paid sick leave. These laws typically enable workers to accrue one hour of paid sick leave for every 40 hours worked, with unused leave rolling over to the following year. Monitoring is relatively light; doctors' notes are generally not required. Evidence shows that these employer mandates substantially increase coverage and reduce job inequality in access to sick leave (Maclean et al., 2025). In the first year after gaining access, eligible workers take roughly two additional sick days and labor costs increase modestly, but there is little evidence of substantial wage or employment losses (Pichler and Ziebarth, 2020). Maclean et al. (2025) also find crowding-in of complementary fringe benefits as firms adjust compensation packages.

2.2 State Paid Family and Medical Leave (PFML) Programs

Early Programs in California and New Jersey. California implemented the first state-level paid family leave program in 2004 through the *California Paid Family Leave Act*, see Bailey et al. (2025) for clean evidence on the absence of effects on female employment, earnings, or childbearing. The program provides paid leave to care for sick family members or newborn children.[3] New Jersey introduced a similar program in 2009. Because our data begin in 2009, these early programs do not provide identifying variation, and we exclude these states from the main analysis.

[2]These four states also introduced PFML, see Table A1. In practice, this means that they run one integrated program where primarily family leave benefits were added through PFML.

[3]Definitions of eligible family members vary across state PMFL programs and may include grandparents or grandchildren; see Table A1.

Identifying variation. Our main approach rests on identifying variation from the District of Columbia (2020), Washington (2020), Massachusetts (2021), and Connecticut (2022).[4] Table A1 summarizes all 13 state-level and the District of Columbia's PFML provisions enacted to date.

Program Benefits and Funding. In most states, PFML programs provide up to 12 weeks of paid leave. Employees apply for benefits through state agencies, and benefits replace a share of prior wages, ranging from roughly 50% (New York) to full wage replacement in some states. Programs are financed through new wage payroll taxes ranging from about 0.5% in D.C. to 1.2% in Colorado, Minnesota and Rhode Island. These taxes are usually shared between employers and employees. In our analysis, treatment begins when benefit payments start; see Table A1.

2.3 Employer-Provided Family and Medical Leave Benefits

NCS routinely includes binary flags for whether firms offer specific benefits, but no explicit details on benefit generosity. That said, the NCS provides hourly costs for some fringe benefits, allowing us to approximate benefit generosity. Unfortunately, this information is missing for family leave. Therefore, in Table A2, we compile examples of family and medical leave benefits that are voluntarily provided by firms. In particular, we document employer-provided leave benefits in control states with a similar economic structure than the main treatment states, namely Wisconsin, New Hampshire and Illinois. We also include two states where PFMLA became effective on January 1, 2026: Maryland and Minnesota.

This descriptive evidence allows us to qualitatively assess whether firm-provided benefits are roughly as generous as those under state-provided PFMLA. As seen, first, we note relevant heterogeneity across firms. Second, family leave ranges between 4 and 16 weeks paid at 100% of regular wages. This means that while duration generosity is probably slightly below the common 12-week state-level generosity, replacement-rate generosity is higher at full regular wages, not at 80% (MA) or 90% (DC, WA). Thus, henceforth, we conclude that public vs. private family leave is of roughly the same actuarial value, that is, overall generosity.

[4] Rhode Island and New York previously operated TDI programs that largely overlap with medical leave benefits (see Section 2.1). We therefore examine these states separately and exclude them from the main control group.

3 National Compensation Survey (NCS)

The National Compensation Survey (NCS), conducted by the Bureau of Labor Statistics (BLS), provides detailed information on wage and non-wage compensation in the U.S. The survey underlies several official statistics on labor costs and compensation and is used, among other purposes, to inform wage adjustments for federal employees. The NCS is uniquely suited to our analysis because it provides nationally representative information on employer-provided fringe benefits at the firm-job level over time.

The NCS is a rotating, nationally representative panel at the firm-job level. Firms remain in the sample for three to five years.[5] We employ the restricted-access version of the NCS, which includes geographic identifiers that allow us to match establishments to state-level PFML programs; see Section 2.[6] Human resource administrators employed in surveyed firms report both employer-provided wage and non-wage benefits by job type to BLS field economists, reducing response errors that may arise in employee surveys when employees are unaware of their benefits. Further details on sampling and survey design are provided in the NCS documentation (BLS, 2022, 2025a).

We use survey years 2009 to 2023, focusing on the end-of-March survey wave because many fringe benefits are only available in the first quarter. Thus, defining event time such that $t = 0$ corresponds to the March following the start of PFML benefit payments, we observe $t = 0, .., 3$ for Rhode Island, New York and Washington state; $t = 0, 1, 2$ for the District of Columbia and Massachusetts; $t = 0, 1$ for Connecticut.

[Insert Table 1 about here]

Sample Selection. We keep the microdata at the firm-job level and restrict the sample to private-sector establishments. As mentioned, we exclude states with long-standing TDI programs because TDI and PFML benefits overlap. Table 1 reports the summary statistics. Our main sample contains 474,544 firm-job observations covering the years 2009 to 2023. Using the Consumer Price Index, we convert all monetary values to 2023 U.S. dollars.

[5] Technically, the NCS is an establishment-level survey. We routinely use BLS-provided weights. We use the terms "firm," "employer," and "establishment" interchangeably.

[6] Because of changes at the BLS by the Trump Administration, we lost access to the restricted-use data.

Outcome Variables. Our main binary outcomes capture employer-provided family and medical leave benefits. We hypothesize that firms reduce the provision of substitutive benefits once states introduce PFML programs. Prior to PFML adoption, 16% of jobs offer paid family leave and 38% STDI (Table 1). Firms typically self-insure paid family leave, whereas STDI and LTDI are often provided through commercial insurers.

We further examine employer responses in LTDI (36%), paid personal leave (43%), and paid vacation days (77%). In addition, we study non-substitutive benefits, such as dental insurance (48%), medical insurance (71%) and prescription drug insurance (69%). To assess welfare consequences, we estimate effects on total annual paid leave hours (156 hrs pre-treatment), that is, "moral hazard" , annual hours worked (1,655 hrs pre-treatment), annual hours paid (1,804 hrs pre-treatment), and hourly wages ($31.67 pre-treament).

Covariates. Table 1 also reports job characteristics used as controls. These include indicators for full-time work (75%) and union coverage (8%), as well as occupation and industry classifications. The most common occupations in the sample are food preparation and serving, production, and transportation and material moving. The most common industries are retail trade, manufacturing, and administrative, support, and waste management services.

4 Empirical Approach

As states adopted PFML programs at different times, we employ staggered difference-in-differences (DD) methods following Callaway and Sant'Anna (2021) ("CS"). The CS estimator is robust to bias arising from treatment-effect heterogeneity and dynamic treatment effects across states with a staggered policy roll-out, yielding an unbiased estimate of the average treatment effect on the treated (ATT).

The CS framework defines treatment groups by their year of adoption g and estimates a sequence of event-time effects. The group-time average treatment effects are defined as:

$$ATT(g,t) = \mathbb{E}\left[Y_{i,t}(g) - Y_{i,t}(\infty) \mid G_i = g\right],$$

where $ATT(g,t)$ measures the average treatment effect for units first treated in period g evaluated in period $t \geq g$. The term $\mathbb{E}[Y_{i,t}(\infty) \mid G_i = g]$ denotes the untreated potential outcome for group g at time t.

Under the parallel trends assumption, $ATT(g,t)$ is identified by comparing the change in outcomes for the treated group between periods $g-1$ and t with the corresponding change for the never-treated group ($G_i = \infty$) (Roth et al., 2023):

$$ATT(g,t) = \mathbb{E}\left[Y_{i,t} - Y_{i,g-1} \mid G_i = g\right] - \mathbb{E}\left[Y_{i,t} - Y_{i,g-1} \mid G_i = \infty\right]. \tag{1}$$

The estimator is implemented using the corresponding sample analogs:

$$\widehat{ATT(g,t)} = \frac{1}{N_g} \sum_{i:G_i=g} \left[Y_{i,t} - Y_{i,g-1}\right] - \frac{1}{N_{g'}} \sum_{i:G_i=g'} \left[Y_{i,t} - Y_{i,g-1}\right].$$

We cluster standard errors ($\mu_{f,j,t}$) at the state level (Bertrand et al., 2004) and apply BLS-provided sample weights to generate nationally representative estimates of PMFL policy impacts.

5 Results

This section presents our empirical results. Given the structure of the NCS data, the reduced-form estimates focus on the extensive margin, that is, whether firms discontinue or maintain fringe benefits after the introduction of state PFML insurance programs. While firms could theoretically adjust the generosity of existing policies, such intensive-margin responses are unlikely because many benefits are standardized insurance products and employer-provided leave benefits are already relatively limited in international comparison (Pichler et al., 2026). Our results show that PFML programs crowd out several employer-provided paid leave benefits, particularly paid family leave, paid personal leave, and paid vacation days, while we find little evidence of adjustments in firm provision of disability insurance.

5.1 Employer-Provided Paid Family Leave and Short-Term Disability Insurance

Figure 1a and b display event-studies for two non-mandated fringe benefits that are potential substitutes for PFML: *paid family leave* and *short-term disability insurance* (often referred to

as "medical leave" today). *A priori*, we expect crowding out of these benefits, that is, we expect (some) firms to eliminate the provision of these benefits once states introduce PFML coverage.

[Insert Figure 1 and Table 2 about here]

First, Figure 1b shows little evidence that firms reduce STDI provision. Two years after PFML implementation, we can rule out reductions larger than four percentage points at the 95% confidence level. One explanation is that STDI is relatively inexpensive, costing roughly four cents per hour worked or 0.1% of gross wages (Pichler and Ziebarth, 2024), see Table 1. Further, firms may continue to offer these benefits to differentiate their jobs and to attract qualified labor. STDI also helps with worker retention after health shocks and keeps frail employees linked to the workplace.

In contrast, we find clear evidence that firms cut paid family leave once PFML programs are introduced. Figure 1a shows immediate, clear and significant reductions by March following public PFML implementation at $t = 0$ and also at $t = 1$ by about five percentage points. Recall that these estimates are identified by Connecticut, the District of Columbia, Massachusetts, and Washington state. The decrease at $t = 3$ is about twice as large, at 10 percentage points, but only identified in Washington state, with about three million private-sector jobs. The pool ATT in Column (1) of Table 2 is -4.7 percentage points relative to a pre-reform baseline of 15.6% of jobs offering paid family leave; that is, we find a significant and large crowding-out effect of about 30%.

5.2 Firm-Provided Paid Personal Leave and Vacation Days

Figures 1c and d show event-studies for two additional paid leave benefits that may substitute for PFML: *paid personal leave* and *paid vacation days*. Absent PMFL benefits, employees typically use their paid personal leave and vacation days for health-related needs such as giving birth (Cronin et al., 2026). However, while state-provided PFML typically covers 12 weeks of paid family leave and up to 24 weeks of medical leave (Table A1), paid personal leave and vacation days are less generous and typically cover only five to 15 days per year (BLS, 2025b). BLS-provided cost estimates per hour worked, in conjunction with average hourly wages (Table 1), imply 2.2 weeks of paid vacation and 0.4 weeks of paid personal leave, on average.

Similar to family leave, Figures 1c and d show clear crowding-out effects for paid personal leave and vacation days. Moreover, these effects increase over time. Three years after PFML implementation, 15% fewer jobs offer paid personal leave and 10% fewer jobs offer paid vacation days. Averaging across post-treatment years, the estimated ATT effects are -7 percentage points (-16%) for paid personal leave and -4 percentage points (-5%) for paid vacation days (Table 2).

5.3 Other Fringe Benefits

Finally, Figures 1e and f report results for two potentially complementary benefits: *dental insurance* and *long-term disability insurance (LTDI)*. There is some suggestive evidence that dental insurance declines in the third year after PFML adoption. However, recall that this point estimate is solely identified by Washington and the average ATT estimate is not statistically significant. Neither is it for LTDI (Table 2, columns (5) and (6)). Appendix Figure B2 shows similarly insignificant results for medical and prescription drug coverage.

5.4 Effect Heterogeneity

Figure 2 presents heterogeneous effects across job characteristics and firm size. We stratify the analysis by full-time versus part-time jobs, union versus non-union jobs, and firm size. The figure reports ATT estimates and 95% confidence intervals for all six outcomes.

[Insert Figure 2 about here]

For STDI and LTDI (Figures 2b and f), we find little evidence of systematic effects across subgroups. Most coefficient estimates are close to zero, with the exception of suggestive crowding-*in* effects for LTDI among large firms, although these effects lose statistical significance after correcting for multiple hypothesis testing.

In contrast, we consistently find crowding-out effects for paid family leave, paid personal leave, and paid vacation days among full-time jobs and in medium-sized firms. One explanation is that part-time jobs (baseline coverage 6.4%) and small firms (baseline coverage 10.1%) are substantially less likely to offer these benefits absent public PMFL.

In summary, medium-sized firms drive the observed crowding-out effects. At the same time, large firms are somewhat *more* likely to offer benefits such as dental insurance or LTDI

after PFML adoption, that is, we find suggestive evidence for "crowding-in." One possible explanation is that large firms use these benefits to differentiate themselves in the labor market and attract skilled workers. This pattern is consistent with recent evidence by Cengiz et al. (2019) and Maclean et al. (2025), who document similar positive spillover effects of benefit regulation.

5.5 Robustness

Appendix Figure B1 examines alternative adjustment margins, including hourly wages (Figure B1a), annual hours on paid leave (Figure B1b), annual hours worked (Figure B1c), and annual hours paid (Figure B1d). We find no systematic evidence that state PFML affects these outcomes.

Overall, the results show substantial crowding out of employer-provided paid leave benefits among medium-sized firms, no evidence of crowding out among small firms, and even some evidence of crowding in among large firms.

6 Welfare Analysis

In a final step, we assess public PFML welfare using a sufficient-statistics framework that combines reduced-form estimates of crowd-out with calibrated benefit values. Our starting point is:

$$\begin{aligned} \Delta W = & V^{pub} - V^{priv} \\ & - C^{gov} - M^{util} + C^{wage} - D^{labor} \end{aligned} \tag{2}$$

where ΔW denotes the change in welfare, V^{pub} denotes the value of public PFML, and V^{priv} is the (change in the) value of firm-provided benefits that are partially crowded out as a result of public PFML.[7] C^{gov} are the net government cost of the new public program, C^{wage} is the wage compensating differential in response to the new payroll taxes and changes in fringe benefits, D^{labor} are potential labor-market distortions, and M^{util} are utilization responses ("moral hazard"). Both V^{pub} and V^{priv} incorporate transfer and insurance components (Chetty, 2006; Hendren and Sprung-Keyser, 2020).

[7] We write welfare explicitly in changes as Δ but, for simplicity, denote all other policy-induced changes omitting Δ.

6.1 Simplifying Assumptions.

For now, we adopt three benchmark assumptions, but relax some below. First, we assume that state-level PFML is approximately fiscally neutral, implying that payroll tax revenues equal program expenditures, i.e., $C^{gov} = 0$. This assumption reflects current reality, see IMPAQ and IWPR (2017) and Appendix Table A1. However, payroll taxes may increase further should utilization dynamically increase in the future, for example, due to changes in social norms and more fathers taking parental leave.

Second, Figures B1a and c show that the estimated effects on wages and annual hours worked are not statistically significant and centered around zero, but also imprecisely estimated.[8] Consequently, we abstract from D^{labor} but, following the literature (Fuest et al., 2018), apply bounds on wage incidence responses, C^{wage}, below.

Third, Figure B1b suggests that the impact on annual hours on paid leave is limited as well, thus, we set $M^{util} = 0$.[9]

As a result, we obtain $\Delta W = V^{pub} - V^{priv} + C^{wage}$. In what follows, using secondary, representative data, we calibrate V^{pub} using the employee-level annual risks of a severe health shock that would lead to medical leave eligibility and of becoming a parent that would lead to family leave eligibility. Further, we calibrate benefit generosity using average wage and labor supply data from Table 1 and weighted PFML program parameters from Appendix Table A1. Moreover, pre-reform fringe benefit provision rates, along with our causal crowd-out estimates, allow us to calibrate V^{priv}. As mentioned, we will bound the potential wage-incidence response, C^{wage}, resulting from higher payroll taxes and fewer fringe benefits.

We begin by assessing family vs. medical leave separately. After that, we assess the bundled PFML program. Note that, in what follows, we will focus on the primary component of family leave, parental leave.

[8] Note that our empirical design does not separately identify workers' willingness to pay for PFML benefits through estimated wage effects. In particular, the absence of a statistically significant wage response does not imply that benefits are fully valued or offset through wage compensation. We therefore treat valuation as a parameter and examine its role below.

[9] We do not model any potential positive externalities of parental leave taking, given the very limited evidence that it causally increases lifecycle fertility (Dahl et al., 2016; Bailey et al., 2025) and given that the large positive externalities documented in the literature are causally linked to health insurance coverage of children (Goodman-Bacon, 2018) or early childhood education programs (Heckmann, 2026).

6.2 Family Leave.

Extensive Margin—Coverage. Pre-reform, only 15.6% of jobs offered family leave (Table 2). One of our central findings shows a crowd-out effect of 4.7 percentage points or about a third. Thus, on the extensive margin, we obtain three distinct employee groups. First, a group whose family leave benefits are crowded out 1:1 ($s_R^F = 0.047$). Second, one group that enjoys both, public and private family leave benefits post-reform ($s_T^F = 0.109$). Third, the newly insured ($s_N^F = 0.844$), that is, workers who gain access to family leave due to the new state program.

Under the maintained assumption that public and private family-leave benefits are similar cash transfers (cf. Appendix Tables A1 vs. A2), the first "crowd-out" group experiences no change in benefits, whereas, for the second group, benefit generosity increases substantially. The third group is by far the largest group and has gained access to paid family leave benefits. Note that this increase in access for the third group will largely determine welfare effects.

Intensive Margin—Generosity. Let $p_F = 0.02$ denote the annual probability of becoming a new parent in a given year among all FMLA-eligible employees. With 12 weeks of leave at 85% replacement[10] and weekly earnings of \$954 (Table 1 using hourly wages and annual hours paid), public parental (family) benefits equal $B_F^{pub} = 12 \times 0.85 \times 954 = \$9,730$ per newborn and parent. Thus, $p_F B_F^{pub} = \$195$ per worker-year. The change in welfare due to the newly state-provided parental leave, ΔW_F, is then:

$$\begin{aligned}
\Delta W_F &= V^{pub_F} - V^{priv_F} - V^{priv_{other}} + C^{wage} \\
&= \underbrace{\left(V^{pub} - V^{priv}\right)}_{R} + \underbrace{V^{pub}}_{N} + \underbrace{V^{pub}}_{T} - V^{priv_{other}} + C^{wage} \\
&= \underbrace{s_N^F \nu_N^F p_F B_F^{pub}}_{N} + \underbrace{s_T^F \nu_T^F p_F B_F^{pub}}_{T} - V^{priv_{other}} + C^{wage}
\end{aligned} \tag{3}$$

since for group s_R^F : $V^{pub} - V^{priv} \approx 0$. $V^{priv_{other}}$ stands for the other paid leave crowd-out effects, e.g., paid vacation and personal days. Further, ν_N^F and ν_T^F capture the value of a marginal PFML dollar. These valuation parameters indicate willingness to pay for a dollar of public benefits. Plugging given values into equation (3), we obtain:

[10] We obtain this number through a weighted average for duration and replacement rate using private sector employment in the three states District of Columbia (0.54 million), Massachusetts (3.7 million), and Washington (three million) see BLS (2023) and Appendix Table A1.

$$\Delta W_F = 185\nu^F - V^{priv_{other}} + C^{wage}$$

for $\nu_N^F = \nu_T^F$. In words, the expected average public parental (family) leave benefit per newborn equals \$185 per worker and year, net of welfare costs (that is, paid leave benefit crowd-out and wage changes due to public PFML).

First, let us now bound C^{wage} and the assumed pass-through rate of the new payroll taxes to wages. Specifically, let us assume that workers definitely pay half the payroll tax as intended by policymakers and that the other half of the pass-through rate is bound between 0 and 100%, $\tau_{rho} \in [0.5, 1]$. We obtain: $\nu_F^{BreakEven} = 0.535\,\tau_{rho}$, implying $\nu_F^{BreakEven} \in [0.27, 0.54]$.[11] In words, abstaining from other paid leave crowd-out and assuming a 100% wage pass-through rate of the employer share of the payroll tax, as long as employees value a dollar of public parental leave benefits at least 54 cents, public family leave would be welfare-improving under the maintained assumptions. Also note that this calculation is conservative in that we focus on parental leave as the largest component of family leave, but omit the value of being able to care for other relatives with caregiving needs, primarily parents.

Second, let us now consider the other paid-leave crowd-out, $V^{priv_{other}}$. Recall that we identified crowd-out in paid vacation days (-4 percentage points) and personal leave (-7.3 percentage points). Assigning this crowd-out to family leave is plausible, given our central finding of large crowd-out effects for employer-provided family leave benefits but none for medical leave ("STDI"), see Table 2. To calculate the benefit value of the crowded-out paid vacation and personal leave, we take estimated "per hour" costs for paid vacation (\$1.24) and paid personal leave (\$0.22), yielding annual benefit values of \$2122 (2.2 weeks) for paid vacation and \$376 (0.4 weeks) for personal leave. Weighted by the percentage point crowd-out shares, this yields private-benefit crowd-out of \$112 per worker-year, and we obtain $\nu_F^{BreakEven} \in [0.87, 1.14]$.

Further, although the assignment of crowded-out paid leave matters for assessing the welfare effects of family leave as a (hypothetical) separate program, worker heterogeneity in the valuation of a marginal parental leave dollar matters probably even more for its welfare assessment. Our calculation so far masks such crucial heterogeneity. Specifically, Figure 2a implies that public family leave valuation is lower for employees in medium-sized firms who bear

[11] This calculation uses weighted payroll taxes in Table A1 of 0.75% (0.54 million) in the District of Columbia, 0.88% (3.7 million) in Massachusetts, and 1.13 (three million) in Washington, and then uses estimates in IMPAQ and IWPR (2017) yielding a payroll tax of 0.2% to fully fund the PMFL program: $\Delta W_F = \$185\nu_F - 0.002 \times \$49,586\tau_{rho}$

most of the crowd-out effects. Further, employees of childbearing age who plan to become parents certainly value parental leave benefits very highly, especially as these benefits include dismissal protection and change social norms around taking parental leave (Ekberg et al., 2013; Unterhofer and Wrohlich, 2017). Future parents likely even value public parental leave benefits by more than 1.14 on the dollar in the upper-bound scenario with full payroll tax pass-through and full assignment of all crowding-out effects to newly introduced public family leave benefits. On the other hand, employees who do not plan to become parents likely do *not* value such benefits, not even with 27 cents on the dollar in the lower-bound scenario.

In conclusion, the welfare effects of public family leave benefits depend crucially on how the crowding-out of paid leave is allocated. Further, assuming universal on-the-job coverage, public family leave entails a redistribution from childless employees to employees with dependent children and relatives with care needs. Finally, note that, contrary to medical leave, parental leave is strictly speaking not an insurance program, as giving birth is rarely an unexpected event. This could explain the low pre-reform fringe benefit coverage rate, a potential result of adverse selection, as firms might anticipate strong sorting and utilization effects and thus underprovide family leave, relative to employees' willingness to pay for it through lower wages.

6.3 Medical Leave.

Extensive Margin—Coverage. Pre-reform, 38.1% of jobs offered medical leave, i.e., STDI, see Table 2. A second central finding of this paper is the absence of crowd-out effects for STDI.

Intensive Margin—Generosity. Let $p_M = 0.03$ denote the probability of a severe health shock in a given year for private sector employees, and let average medical leave duration equal eight weeks (IMPAQ and IWPR, 2017) at 85% replacement (Table A1). With weekly earnings of \$954 (Table 1), expected annual public medical-leave benefits then equal \$195 per worker-year, slightly more than for family leave above. Hence, letting $\tau_{rho} \in [0.5, 1]$ we obtain[12] as break-even: $\nu_M^{BreakEven} \in [1.02, 2.03]$.

There are two main reasons the break-even thresholds are higher for medical leave than for family leave, even in the absence of crowd-out effects. First, the pre-reform coverage rates are

[12] Following IMPAQ and IWPR (2017) and above, we assume a separate payroll tax that would fully fund medical leave of 0.8% of annual earnings, thus $\rho \cdot 0.008 \cdot 49{,}586 = 396.7\,\rho$

multitudes higher, 38% for medical vs just 16% for family leave, implying that public medical leave leads to a much smaller share of newly covered employees. Second, according to IMPAQ and IWPR (2017), medical leave program costs are four times higher than family leave expenses, resulting in assumed separate payroll taxes—representing the key cost component of the public programs—of 0.8% vs. 0.2%.

6.4 Total Public PFML Welfare.

In a final step, following the same logic as above, we assess overall program welfare. Note that, in this last step, we can unambiguously assign all crowd-out effects to the bundled PFML program using our reduced-form causal estimates in Table 2. Combining all findings, total welfare is: $\Delta W_{PFML} = 185\,\nu_F + 195\,\nu_M - 112 - 496\,\tau_{rho}$ and varying the pass-through rate with $\rho \in [0.5, 1]$, we obtain:

$$\nu_{PFML}^{BreakEven} \in [0.95,\ 1.60]. \tag{4}$$

6.5 Discussion

While public family leave is very likely to increase welfare among future parents, adults without children likely value the marginal parental-leave dollar below the welfare-improving threshold. From a lifetime perspective, most employees have children, so overall, family leave likely improves welfare.

In contrast, the bundled public PFML benefits would require average employees to value the benefit by at least \$0.95 on the dollar, assuming that employees effectively pay half of the newly enacted payroll taxes as intended by policymakers. By contrast, this calculation conservatively abstains from the value of caring for other relatives as part of family leave. Probably more importantly, this average break-even threshold masks crucial heterogeneity across employee subgroups; for example, low-income employees are more likely to experience health shocks, implying a lower break-even threshold (Cao et al., 2026).

Finally, note that we have implicitly assumed that the value of a dollar of cash benefits is identical in the "good" vs "bad" state, whereas in reality, new parents likely value parental leave benefits more and have higher consumption utility when caring for their newborn. Regarding medical leave, people in poor health may value a dollar less due to lower consumption

utility (Finkelstein et al., 2013). On the other hand, although the literature lacks clear causal evidence on this, medical leave might generate positive societal externalities as it facilitates not just current employment, but labor market attachment—and potentially productivity through improved health—in the long run. It may prevent early labor market withdrawal through take-up of disability benefits due to permanent work disability; see Fang and Gavazza (2011) for evidence of such dynamic inefficiencies in health insurance.

7 Conclusion

We empirically assess how firms respond to the newly introduced state-level paid family and medical leave (PFML) programs and whether there is evidence for crowd-out of employer-provided paid leave benefits. To test for such crowd-out effects, we use representative firm-job-level data from the BLS, employing staggered difference-in-differences models and variation across three states and the District of Columbia over the period 2009 to 2023.

We find little evidence that PFML crowds out relatively inexpensive (and potentially complementary) short- and long-term disability insurance group policies. But we find clear evidence for substantial crowd-out of family leave benefits that, pre-reform, were already provided at much lower rates (16% vs 38%). We also find strong evidence of paid vacation and personal leave crowd-out, likely triggered by the family leave component of PFML.

Finally, we assess potential welfare effects by considering our causally identified crowding-out effects and calibrated expected benefits relative to baseline risk among U.S. employees. Overall, employees must value the marginal dollar of cash benefits by at least $0.95 to make the overall program welfare improving. However, this average view masks crucial employee heterogeneity: employees in medium-sized firms bear the largest burden of crowd-out costs, and individuals without children, as well as healthy employees, bear most of the program costs. Future parents, as well as employees with low incomes and higher risks of health shocks, who have little to no access to voluntary employer-provided benefits, are the main beneficiaries of public PFML programs.

Future research will provide more evidence on how dynamics in the utilization of public PFML will affect labor costs, hiring, and long-term labor market outcomes.

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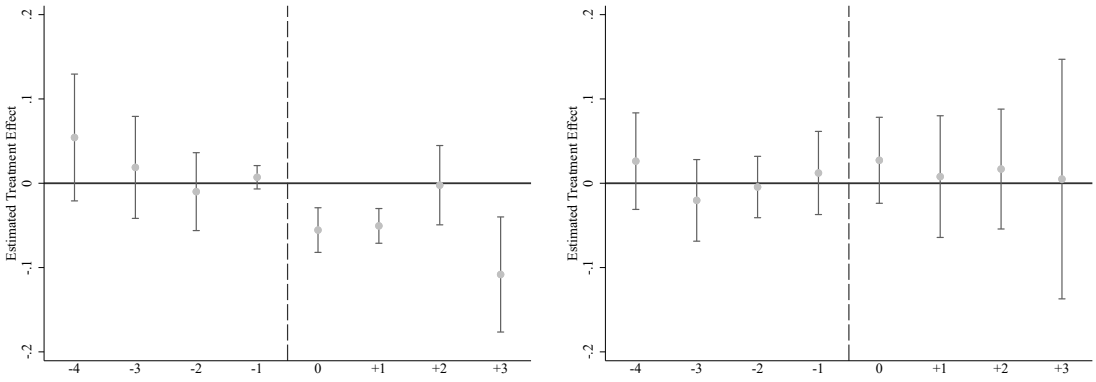
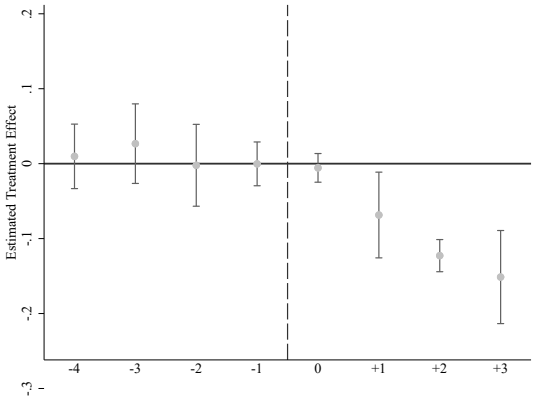
Figure 1: State-Level PFML and Employer-Provided Benefits

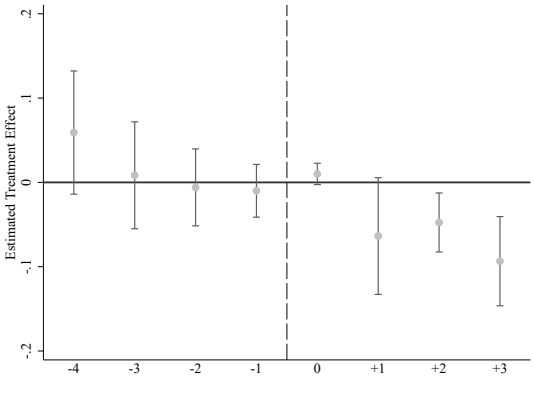


(a) Family leave

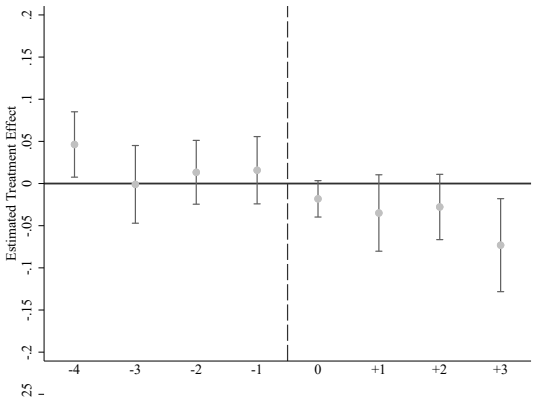
(b) Short-term disability insurance



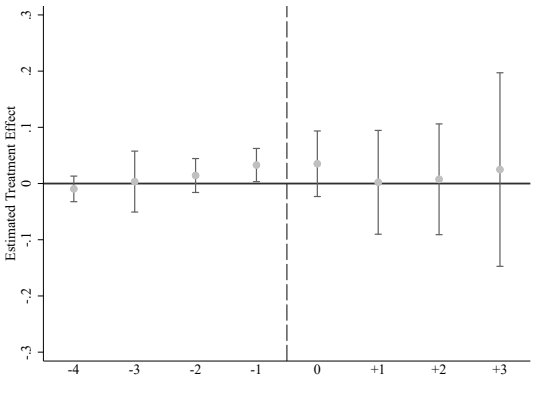
(c) Paid personal leave



(d) Paid vacation



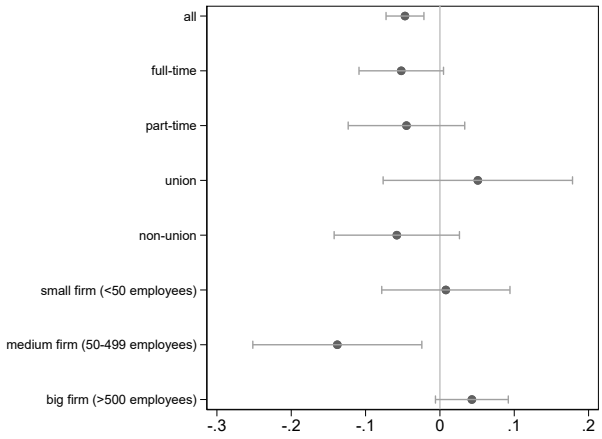
(e) Dental insurance



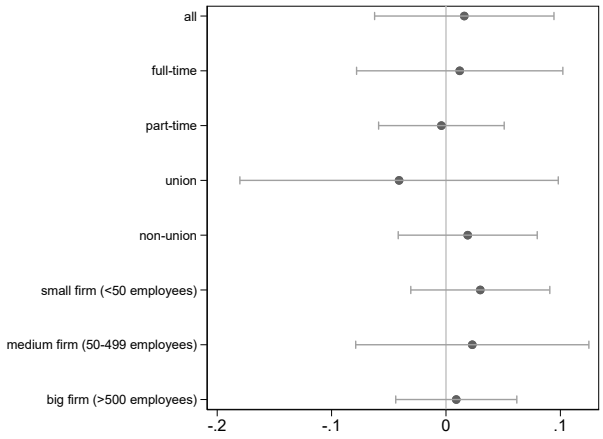
(f) Long-term disability insurance

Notes: NCS data from 2009-2023. All graphs show Callaway and Sant'Anna (2021) event studies. Standard errors are clustered at the state level and the gray bars depict 95% confidence intervals. For more information about the PFML reforms, see Table A1.

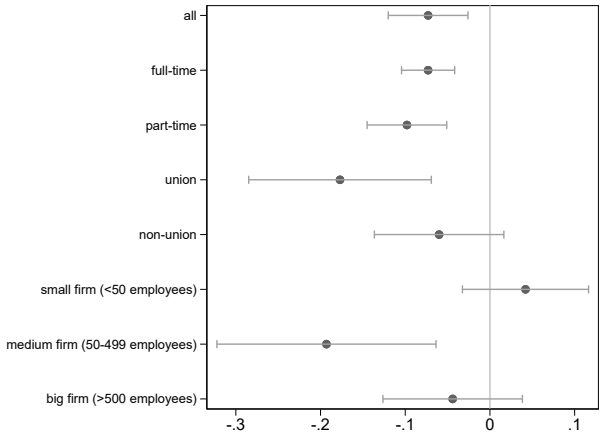
Figure 2: State-Level PFML and Employer-Provided Benefits: Effect Heterogeneity



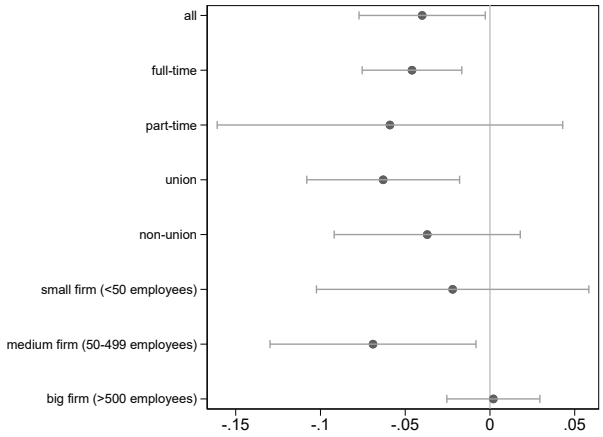
(a) Family leave



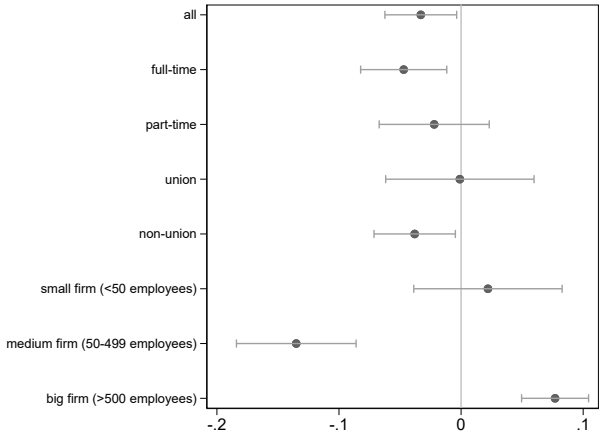
(b) Short-term disability insurance



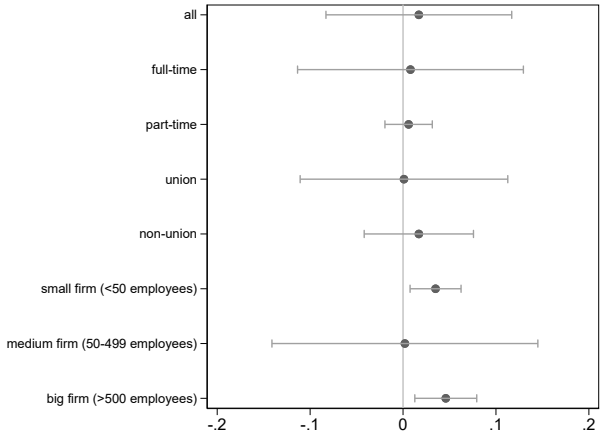
(c) Paid personal leave



(d) Paid vacation



(e) Dental insurance



(f) Long-term disability insurance

Notes: NCS data from 2009-2023. All graphs show Callaway and Sant'Anna (2021) event studies. Standard errors are clustered at the state level and the gray bars depict 95% confidence intervals. For more information about the PFML reforms, see Table A1.

Table 1: Descriptive Statistics, National Compensation Survey (NCS)

	All	Treated States, pre-mandate	Control States
Main outcomes			
Family leave offered (binary)	0.146	0.156	0.142
Short term disability offered (binary)	0.369	0.381	0.366
Long term disability offered (binary)	0.344	0.361	0.340
Personal leave offered (binary)	0.407	0.433	0.402
Paid vacation offered (binary)	0.778	0.771	0.780
Dental insurance offered (binary)	0.418	0.485	0.407
Job characteristics			
Full-time employment (binary)	0.746	0.723	0.749
Part-time employment (binary)	0.254	0.277	0.251
Non-unionized (binary)	0.922	0.904	0.926
Unionized (binary)	0.0776	0.0956	0.0745
Hourly wage (in $2022)	26.76	31.67	25.85
Annual hours worked	1711.4	1654.5	1721.3
Annual hours paid	1853.1	1804.2	1861.3
Annual paid leave hours paid	146.8	156.1	145.0
Other fringe benefits			
Medical insurance offered (binary)	0.692	0.706	0.690
Prescription drug insurance offered (binary)	0.679	0.689	0.677
Sick leave offered (binary)	0.664	0.733	0.648
Main occupations (by share)			
Food preparation & serving	0.102	0.0946	0.103
Production	0.0860	0.0563	0.0912
Transportation & material	0.0851	0.0664	0.0881
Health practitioners & technicians	0.0645	0.0622	0.0651
Installation, maintenance, & repair	0.0457	0.0384	0.0471
Business & financial operations	0.0434	0.0532	0.0416
Management	0.0433	0.0556	0.0410
Construction & extraction	0.0423	0.0402	0.0426
Main industries (by share)			
Retail trade	0.133	0.126	0.135
Manufacturing	0.118	0.0950	0.121
Admin, support, waste mgmt; remed. services	0.0711	0.0673	0.0715
Professional, scientific, technical services	0.0678	0.0945	0.0633
Construction	0.0529	0.0517	0.0530
Finance & insurance	0.0509	0.0517	0.0509
Wholesale trade	0.0455	0.0391	0.0467
Transportation & wharehousing	0.0452	0.0341	0.0471
Firm size	691.6	873.3	638.9
Observations	474544	67365	400919

Notes: NCS data from 2009-2023 (BLS, 2022). Data are yearly and at the firm-job level; they are weighted by BLS provided weights. Minimum and maximum values not available due to data confidentiality reasons. According to BLS' definition, "medical insurance" is health insurance without drug coverage.

Table 2: State-Level FML and Employer-Provided Benefits

Outcome	**Paid family leave**	**Short-term disability insurance**	**Paid personal leave**	**Paid vacation**	**Dental insurance**	**Long-term disability insurance**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Pretreatment mean: *(in treated localities)*	0.1555	0.3814	0.4334	0.7705	0.4847	0.3613
Panel A						
PFML effective	-0.047***	0.001	-0.073***	-0.040**	-0.006	0.016
	(0.013)	(0.051)	(0.024)	(0.019)	(0.049)	(0.042)
Year FE	X	X	X	X	X	X
State FE	X	X	X	X	X	X
Panel B						
PFML effective	-0.062***	0.040*	-0.048	-0.050**	-0.023	0.024
	(0.014)	(0.024)	(0.030)	(0.022)	(0.016)	(0.040)
Year FE	X	X	X	X	X	X
State FE	X	X	X	X	X	X
Employee + mandate controls	X	X	X	X	X	X

Source: NCS 2009-2022 (BLS, 2022). FE=fixed-effects. Each column in each panel stands for one Callaway and Sant'Anna (2021) model accounting for possible biases due to treatment dynamics and heterogeneity; ***, **, and * = statistically different from zero at the 1%, 5%, and 10% level. All models are weighted using NCS weights provided by the BLS. Employee and mandate controls: unionized job and part-time employment as well as indicators for PTO and sick pay mandates. Standard errors clustered at the state level and reported in parentheses. All models have 474,544 firm-job observations. The sample omits all six TDI states (CA, NJ, NH, NY, RI, HI) and focuses only on private-sector firms.

Table 3: Welfare Decomposition of PFML

	Value ($)	Description
Family Leave		
Benefits for employee groups:		
Newly insured	164	$s_N^F p_F B_F^{pub}$
Top-up	21	$s_T^F p_F B_F^{pub}$
Costs		
Replacement	0	1:1 substitution, s_R^F
Private paid leave crowd-out	-112	Vacation + personal leave
Payroll tax incidence	$[-49.59; -99.17]$	$\tau_\rho \in [0.5; 1]$
$\nu_F^{BreakEven} \in$	[0.87;1.14]	
Medical Leave		
Public benefits	195	$p_M B_M^{pub}$
Payroll tax incidence	$[-198.34; -396.69]$	$\tau_\rho \in [0.5; 1]$
$\nu_M^{BreakEven}$	[1.02, 2.03]	
Total PFML	380	
Payroll tax incidence	$[-247.93; -495.86]$	$\tau_\rho \in [0.5; 1]$
$\nu_{PFML}^{BreakEven} \in$	[0.95;1.60]	

This table shows the separate components of the assessed welfare effects. The total welfare equation is in equation (2). As discussed in the main text, newly levied payroll taxes fully fund the program (Table A1), thus $C^{gov} = 0$ and Figure B1 rationalizes $M^{util} = 0$. The table shows how we bound the change in wages C^{wage}, varying the incidence of the employer share of the payroll tax between 0 and 100%, $\tau_\rho = [0.5; 1]$. s stands for the empirical shares of employees, with $s_R^F = 0.047$ indicating the crowd-out group for private family leave, $s_T^F = 0.109$ the top-up group whose benefit generosity doubles, and $s_N^F = 0.844$ those who newly gained access to family leave. $p_F = 0.02$ is the annual probability of becoming a parent among employees, and $p_M = 0.03$ is the likelihood of a major work-limiting health shock in a given year. Annual Benefit values B are calibrated using weighted duration and replacement rates from Table A1, along with hourly wage and annual hours worked data from Table 1. Values for paid vacation and personal days, $V^{priv_{other}}$ are calculated using BLS data on average costs per hour worked for paid vacation days ($1.24) and paid personal days ($0.22). See Section 6 for more details.

Appendix

Table A1: Overview of State-Level Medical and Family Leave Benefits in the U.S.

Region (1)	Law Passed (2)	Law Effective - Premium (3)	Law Effective - Benefits (4)	Content (5)
California	September 26, 2002	Jan 1, 2004	July 1, 2004	TDI since 1946; 52 weeks for own disability; 6 weeks (8 weeks starting from 2020) for family (including grandchildren, siblings, and parents of a spouse or domestic partner); benefits of 70%-90% of wages; 1.3% of wages paid by employee only
New Jersey	May 2, 2008	Jan 1, 2009	Jan 1, 2009	TDI since 1948; 26 weeks for own disability; 6 weeks (12 weeks starting from 2020) for family (including grandchildren, siblings, parents of a souse or domestic partner, and other persons with close relationships); benefits of 85% of wages; 0.23% of wages jointly paid
Rhode Island	July 11, 2013	no change	Jan 1, 2014	TDI since 1942; 30 weeks for own disability; 8 weeks for family; benefits of 60% of wages; 1.3% of wages paid by employee only
New York	April 1, 2016	July 1, 2017	Jan 1, 2018	TDI since 1949; 26 weeks for own disability; 8 10 (2019) 12 (2021) weeks for family (including grandchildren, siblings starting from 2022); benefits of 50-67% of wages; premium of 0.432% of wages jointly paid
Washington D.C.	February 17, 2017	July 1, 2019	July 1, 2020	12 weeks for own disability, 12 weeks since 2022 (started at 6) for family (including siblings); benefits of 90% of wages; 0.75% of wages paid by employer
Washington	July 5, 2017	Jan 1, 2019	Jan 1, 2020	12 weeks for own disability, 12 weeks for family (including grandchildren, siblings, parents of a spouse or domestic partner, and other persons with close relationships); benefits of 90% of wages; premium of 1.13% of wages up to SS cap, jointly paid (firms w/ <50 employees not required to pay);
Massachusetts	June 28, 2018	Oct 1, 2019	Jan 1, 2021	20 weeks for own disability, 12 weeks for family (including grandchildren, siblings, and parents of a spouse or domestic partner); benefits of 80% of wages; premium of 0.88% of wages jointly paid (firms w/ <25 employees not required to pay);
Connecticut	June 25, 2019	Jan 1, 2021	Jan 1, 2022	12 weeks for own disability and family (including grandchildren, siblings, parents of a spouse or domestic partner, and other persons with close relationships); benefits of 95% of wages; 0.5% of wages paid by employees
Oregon	August 9, 2019	Jan 1, 2023	September 3, 2023	12 weeks for own disability and family (including grandchildren, siblings, parents of a souse or domestic partner, and other persons with close relationships); benefits up to 100% of wages; premium of 1% of wages jointly paid (firms w/ <25 employees not required to pay)
Colorado	November 3, 2020	Jan 1, 2023	Jan 1, 2024	12 weeks for own disability and family (including grandchildren, siblings, parents of a souse or domestic partner, and other persons with close relationships); benefits of 90% of wages; premium of 0.88-1.2% of wages jointly paid (firms w/ <10 employees not required to pay)
Maryland	April 9, 2022	July 1, 2025	July 1, 2026	12 weeks for own disability and family (including grandchildren, siblings, and parents of a spouse or domestic partner); benefits of 90% of wages; premium of 0.9-1.2% of wages jointly paid of Secretary of Labor (firms w/ <15 employees not required to pay)
Delaware	May 10, 2022	Jan 1, 2025	Jan 1, 2026	6 weeks for own disability and family (grandparents not included); employers with <25 employees only benefits of 80% of wages; 0.08-0.32% of wages jointly paid
Minnesota	May 25, 2023	Jan 1, 2026	Jan 1, 2026	12 weeks for own disability and family (including grandchildren, siblings, parents of a spouse or domestic partner, and other persons with close relationships); benefits of 90% of wages; 0.88% of wages jointly paid
Maine	July 11, 2023	Jan 1, 2025	May 1, 2026	12 weeks for own disability and family (including grandchildren, siblings, parents of a spouse or domestic partner, and other persons with close relationships); benefits of 90% of wages; 1% of wages jointly paid

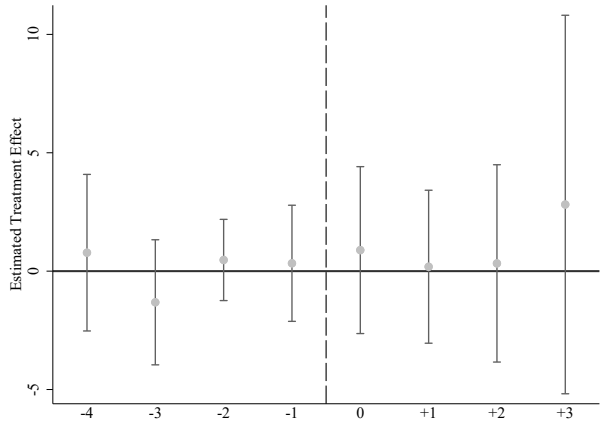
Source: A Better Balance (2026); National Partnership for Women and Families (2023), own collection, own illustration. Note: In terms of covered family members, all states except for Delaware include own children, parents, grandparents, spouses, and domestic partners. Nevada (Jan 1, 2020), Maine (Jan 1, 2023), and Illinois (Jan 1, 2024) passed paid time off mandates, requiring employers to allow employees to accrue general paid time off without a specific reason.

Table A2: Overview of Firm-Level Medical and Family Leave Benefits in the U.S.

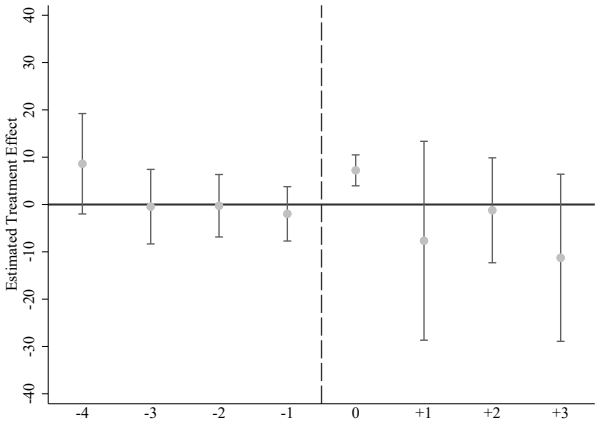
State (1)	Firm (2)	Benefit Type (3)	Max Duration (4)	Replacement Rate (5)	Notes and Sources (6)
Wisconsin	Harley Davidson	Parental	8 weeks	100%	Web Source as of March 26, 2026; pregnancy leave is just for giving birth
		Student Loan Assistance	N/A	0%	
	Menards	Parental	6 weeks	Unpaid	Web Source as of March 26, 2026
		Student Loan Assistance	N/A	0%	
New Hampshire	Fidelity Investments	Parental	16 weeks birth, 12 weeks adoption	100%	Web Source as of March 26, 2026
		Student Loan Assistance	Payment structure not specified	$15,000	
	Dartmouth-Hitchcock Medical Center	Parental	8 weeks	100% for 6, 60% for 2 weeks	Web Source as of March 26, 2026
		STDI	90 days	100%	
		Student Loan Assistance	Outstanding loans, repaid over 4 years	$20,000	Only Registered Nurses are Eligible
Illinois	Grubhub	Parental	16 weeks	100%	Web Source as of March 26, 2026
		STD	12 weeks	N/A	
		Student Loan Assistance	N/A	0%	
	Morningstar	Parental	8 weeks	100%	Web Source as of March 26, 2026
		Student Loan Assistance	N/A	0%	
	EDF Renewables (medium sized)	Parental	8 weeks	100%	Web Source as of March 26, 2026
		Student Loan Assistance	N/A	0%	
Maryland	Johns Hopkins	Parental	4 weeks	100%	Web Source as of March 26, 2026
		STDI	26 weeks	60-100%	replacement rate on "sliding scale", no more details
	Marriott	Parental	8 weeks	100%	Web Source as of March 26, 2026; family caregiving unpaid: FMLA
		STDI	12 weeks	60%	no LTD or paid vacation, national holidays
	Lockheed Martin	Parental	6 weeks	100%	Web Source as of March 26, 2026; family caregiving unpaid: FMLA
		STDI	26 weeks	100% for 8 weeks, 60% next 10	LTD 26 weeks after STD at 50-60%
		Paid Vacation/National holidays	PTO	100%	Vacation and National Holidays grouped together, categorized as non-working paid days
Minnesota	Target	Parental	4 Weeks	100%	Web Source as of March 26.2026
		STDI	20 weeks	75% for 8 weeks, then 60%	7-day waiting period for STDI, LTDI after 150 days of STDI
		Paid vacation/National holidays	N/A, accrued	depends on employment type	Vacation and National Holidays grouped together, categorized as non-working paid days
	Best Buy	Medical	6 weeks	100%	Web Source as of March 26, 2026; medical leave for own condition only
		Parental	4 weeks	100%	
		STDI & LTDI	STDI up to 6 weeks	100%	
		Paid Vacation/National holidays	Tenure dependent	100%	5 floating (employee chooses dates), 2 fixed holidays Vacation and National Holidays grouped together, categorized as non-working paid days
	United Health	Parental	6 weeks	N/A	Web Source as of March 26, 2026; caregiver = "family" leave
		Caregiver Leave	2 weeks	N/A	
		STDI & LTDI	N/A	60%	
		Paid Vacation/National holidays	8 national & one floating	100%	Vacation and National Holidays grouped together, categorized as non-working paid days
	U.S. Bank	Parental Leave	10 weeks	100%	Web Source as of March 26, 2026; adoptions, fathers also eligible
		STDI	13 weeks	100% for 12 weeks, then 60%	
		LTDI	after 26 weeks	50%	
		Paid Vacation/National holidays	2-5 weeks	100%	11 holidays, one floating (employee chooses date), Vacation and National Holidays grouped together, categorized as non-working paid days

Sources: See last column, own collection, own illustration. All listed firms are considered large under the definition in the NCS. STDI=short-term disability insurance ("medical leave"); LTDI=long-term disability insurance

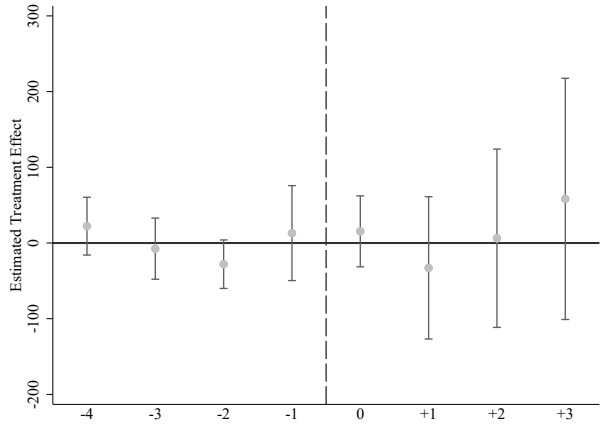
Figure B1: State-Level FML: Wages, Hours Worked and Paid



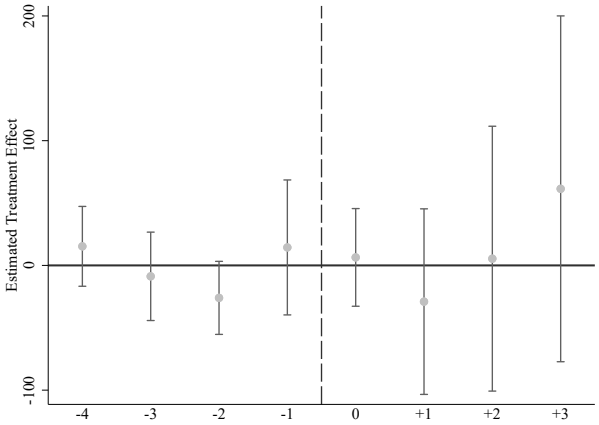
(a) Wage



(b) Annual hours on paid leave



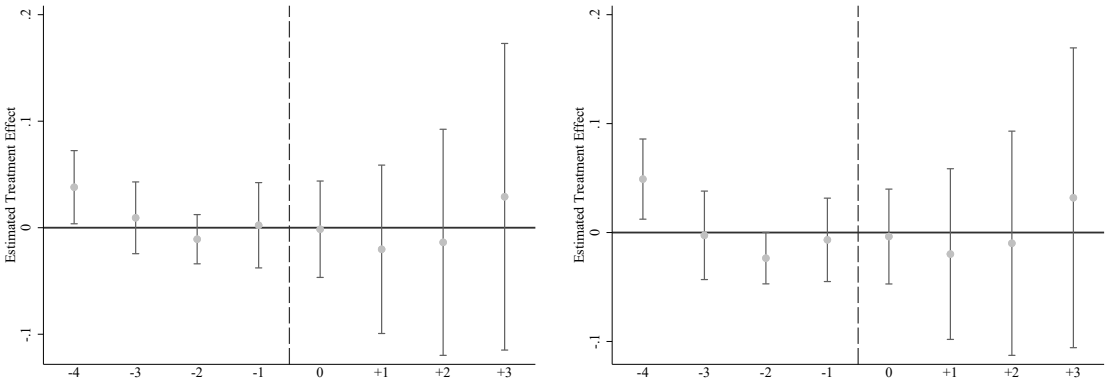
(c) Annual hours worked



(d) Annual hours paid

Notes: NCS data from 2009-2023. All graphs show Callaway and Sant'Anna (2021) event studies. Standard errors are clustered at the state level and the gray bars depict 95% confidence intervals. Event studies include year and firm fixed effects. For more information about the FML reforms, see Table A1.

Figure B2: State-Level FML and Employer-Provided Benefits (II)



(a) Medical insurance

(b) Prescription drug insurance

Notes: NCS data from 2009-2023. All graphs show Callaway and Sant'Anna (2021) event studies. Standard errors are clustered at the state level, and the gray bars depict 95% confidence intervals. Event studies include year and firm fixed effects. For more information about the FML reforms, see Table A1.