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More than Snuggles: The Effect of Paid Family Leave on Infant Maltreatment

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Abstract

Child maltreatment is a pervasive problem in the United States with significant economic, health, and human capital consequences. Children under age one experience the highest rates of child abuse and neglect and the greatest likelihood of fatality from maltreatment, including shaken baby syndrome. Publicly-funded paid family leave (PFL) programs in the U.S. have been found to improve risk factors for maltreatment including increased parental time investments in children, better maternal and child health, and household income protection in the months surrounding a birth. We examine whether state PFL programs in the U.S. affect infant maltreatment. Using administrative data on child maltreatment reports to Child Protective Services (CPS), we compare reports of infants under age 1 in PFL states to reports of infants in non-PFL states before and after PFL was implemented. We find that PFL reduced reports of infant maltreatment by about 14 percent, and home removals by about 46 percent. We also observe fewer substantiated reports by about 22 percent. These results imply PFL has spillovers to the child welfare system that should be accounted for.

Keywords

child abuse and neglect; child well-being; paid family leave

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1.0 Introduction

Child abuse and neglect during infancy and early childhood has negative consequences. In the short-term, child maltreatment, including physical abuse, sexual abuse, emotional abuse, and neglect, impedes cognitive development, creates attachment problems, increases internalizing symptoms and externalizing behaviors, impairs social functioning, and lowers academic achievement (Kendall-Tackett & Eckenrode, 1996). The effects are long-lasting, persisting into adolescence and adulthood. For example, research has shown that child maltreatment often leads to behavioral and mental health problems (Fletcher, 2009; Thornberry et al., 2010), lower levels of educational attainment, employment, and earnings in adulthood (Currie & Spatz Widom, 2010; Zielinski, 2009), and criminal involvement later in life (Currie & Tekin, 2012). In addition to child victims' immediate suffering, child maltreatment also generates substantial costs to society. Peterson et al. (2018) estimate the total costs of maltreatment, which includes the direct costs of the child welfare system and long-term societal costs, to exceed \$2 trillion annually.

Among victims of child maltreatment, infants experience both the highest rates of abuse and neglect and the greatest likelihood of fatality due to maltreatment-related causes, including shaken baby syndrome (US DHHS, 2024). Relative to children over age 1, infants require disproportionately higher care. According to the CDC, infants require special care surrounding feeding, diapering, and sleep. A typically developing infant will also experience a higher number of social and developmental milestones than their toddler peers (CDC, 2020), which will likewise require more intensive parenting. Resource constraints may also heighten maltreatment risk, especially among households whose economic circumstances change adversely in the months surrounding a birth (e.g., single mothers who live without other adults (Stanczyk, 2020)). Both the higher care demands on their parents and infants' vulnerability may partially explain their elevated risk of maltreatment. Additionally, children living in poverty are five times as likely to be the victim of child maltreatment than those in high-income families (Sedlak et al., 2010).

In this paper, we examine the relationship between state-level paid family leave (PFL) programs and infant maltreatment reports. Unlike other developed countries, the U.S. does not have a federal PFL program. However, as of October 2024, 13 states plus D.C. have passed legislation to create paid family and medical leave programs. Relying mostly on the first state PFL program in the U.S. (California), research has shown that PFL has improved maternal, infant, and child health, and many other positive indicators of child development (Bailey et al., 2019; Bullinger, 2019; Doran et al., 2020; Lee et al., 2020; Lichtman-Sadot & Bell, 2017; Pihl & Basso, 2019; Trajkovski, 2019). The impacts of state PFL programs on child abuse and neglect, however, are less clear.

In the current study, we examine whether state PFL programs affect child abuse and neglect reports among infants. Using age-specific administrative reports to Child Protective Services (CPS) agencies nationwide and a staggered difference-in-differences approach, we hypothesize that PFL programs would reduce infant maltreatment reports, given the strong conceptual link between income support policies and child maltreatment.

2.0 Background

2.1 Paid Family Leave

Paid family leave is the option to take time off work to care for a family member while continuing to receive compensation. New parents in the U.S. do not have consistent access to paid family leave. Rather, they piece together unpaid leave (offered through the Family and Medical Leave Act (FMLA)), employer-sponsored paid leave, paid family leave offered through a handful of states, temporary disability insurance in a few states, or accrued sick and vacation time. Nationwide, only 59 percent of employees are eligible for unpaid leave through FMLA, due to its work history and employer size requirements (Klerman et al., 2012), and 18 percent of private sector workers are eligible for employer-sponsored leave (U.S. Bureau of Labor Statistics, 2019). These statistics highlight the inaccessibility of paid leave options for parents in the United States. Access to any leave (employer sponsored or unpaid) is even lower for low-income employees (Beach & Walsh, 2021), whose children are most at-risk for child maltreatment.

Thirteen states plus D.C. have passed state-level PFL legislation. PFL programs vary in their structures (e.g., leave lengths, wage replacement amounts, and eligibility requirements), but generally offer new parents time off after the birth or adoption of a child, and employees time to care for ill family members while replacing wages and protecting the right to return to work. In this paper, we focus on the former as most of the claims for these programs are for bonding with a newborn (CA EDD, 2024).

California's PFL program was the first program in the United States, and it went into effect in 2004. Since then, New Jersey, Rhode Island, New York, Washington D.C., Washington, Massachusetts, Connecticut, Oregon, Colorado, Maryland, and Delaware have enacted paid family leave programs. These programs range in their duration of leave from 4 weeks to 12 weeks, though most programs offer 12 weeks. Programs typically provide between 50–70 percent of earnings (ranging from 50–100 percent), usually with a maximum weekly benefit amount. Some states have a sliding scale based on income, where lower-income employees receive larger wage replacement rates. States also vary in their prior work requirements and employer size eligibility. Mothers of less advantaged groups—e.g., non-Hispanic black, non-college educated, unmarried, and Hispanic mothers—have been shown to take up leave more in both California and New York (Rossin-Slater et al., 2013; Nguyen et al., 2023). Fathers are both less likely to take leave and take shorter leaves, than mothers (Baum & Ruhm, 2016).

2.2 How Paid Family Leave Could Affect Child Maltreatment

Theoretically, there are many ways in which paid family leave programs can affect child abuse and neglect (which includes failure to meet a child's basic safety, health, and emotional needs). As an example, PFL may allow parents to better afford basic needs through increased income, which is particularly relevant for neglect. PFL also offers parents more time to spend with their young children, which may reduce absent and/or neglectful parenting, but has an unclear influence on other forms of abuse. Finally, PFL can improve

parental mental health, intra-household relationships, and lower stress, which may reduce child endangerment and abuse. We discuss each of these pathways in detail below.

2.2.1. Household Financial Resources: Compared to not working or unpaid leave, PFL increases family income, which can improve a caregiver's ability to provide a child with basic needs, such as food, shelter, diapers, healthcare, and other resources for childrearing (Berger, 2007; Berger & Waldfogel, 2011). As an example, infants require essential and expensive products, such as diapers. Diapers are an example of critical expenses that are not eligible for anti-poverty program assistance like SNAP or WIC. As such new parents depend on stable and secure income, like that from PFL, to meet their new infant's needs. About 30% of families struggle to maintain an adequate supply of diapers (Smith et al., 2013). Without the provision of necessities like diapers, infants may suffer neglect (Kazaks & Lane, 2000), which occurs when a child's material needs are not met. Babies that lack proper diapering are also at heightened risk of abuse, as they may be cranky, cry more, and less bonded to their caregivers (Prevent Child Abuse New Jersey, nd). Mothers with infants experiencing diaper need and food insufficiency are also at risk of depressive symptoms (Austin & Smith, 2017).

In the short-run, paid family leave in California increased maternal employment (Baum & Ruhm, 2016; Byker, 2016; Rossin-Slater et al., 2013), though evidence on maternal employment in the long-run is mixed (Bailey et al., 2019; Baum & Ruhm, 2016; Rossin-Slater et al., 2013). Perhaps due to increased employment, Stanczyk (2019) found that the implementation of PFL was associated with both increases in family income, and reductions in family poverty, especially for those who were single, less educated, and had low incomes. Lenhart (2021) further shows that California's PFL reduced food insecurity among families recently experiencing a birth, and, consistent with Stanczyk (2019), these results are largest among low-income households. Since policies that increase household incomes and buffer against material hardship have been shown to reduce child maltreatment, particularly for younger children (Berger et al., 2017; Biehl & Hill, 2018; Cancian et al., 2013; Klevens et al., 2015, 2017; Raissian & Bullinger, 2017; Rostad, Klevens, et al., 2020; Rostad, Ports, et al., 2020), we expect paid family leaves to reduce child maltreatment through this channel. Furthermore, many of these policies with a documented association with child maltreatment are similarly tied to employment, such as minimum wages (Raissian & Bullinger, 2017), the earned income tax credit (Berger et al., 2017; Biehl & Hill, 2018; Rostad, Ports, et al., 2020), and childcare subsidies (Maguire-Jack et al., 2023), suggesting an overlap between parents participating in the labor market and those at-risk for child maltreatment.

2.2.2. Parental Engagement: Changes in employment patterns can also change parental time use. PFL programs in the U.S. have been shown to increase leave-taking by parents (Baum & Ruhm, 2016; Nguyen et al., 2021; Rossin-Slater et al., 2013). In California, the duration of leave-taking among mothers increased by three to six weeks (Rossin-Slater et al., 2013), and leave-taking by both mothers and fathers independently was also more likely (Baum & Ruhm, 2016). These increases in leave have resulted in greater parental time investments in children. Specifically, three studies have found improvements in various measures of breastfeeding (e.g., ever breastfed, exclusive breastfeeding) as a result

of PFL in California, though the populations most strongly affected are inconsistent across these studies (Hamad et al., 2018; Huang & Yang, 2015; Pac et al., 2019). Three other studies also shed light on parental time investments in children. Each of these studies finds improvements in the amount and/or quality of time parents spend with children, including time spent reading with young children (Bailey et al., 2019; Bullinger, 2019; Trajkovski, 2019). Further, mothers engaging in more high-quality infant-mother interactions increases attachment security (Plotka & Busch-Rossnagel, 2018). Increasing parental investments in children, whether through breastfeeding or other educational or recreational time with children, likely affects several other outcomes, including potentially increasing mother-infant attachment and influencing child maltreatment.

Although a recent line of research examining the role of employment loss on child maltreatment generally suggests more child maltreatment, especially neglect (e.g., Brown and De Cao, 2020; Lindo et al., 2018; Schenck-Fontaine et al., 2017; Schenck-Fontaine & Gassman-Pines, 2020), other research shows that unemployment may actually decrease child maltreatment, especially if the employment is associated with gaps in supervision or the use of unsuitable caregivers (Lindo et al., 2018; Paxson and Waldfogel, 2002; Raissian 2015). PFL may allow parents to care for their children directly, rather than having to choose between income and appropriate infant care. We note, however, that research on the role of *unexpected unemployment* may not apply to the case of a *planned* leave of absence from work, as in the case of paid family leave. Nonetheless, these studies highlight the tradeoff between employment and childcare, demonstrate that economic conditions play a role in children's well-being, and highlight potential ways PFL can enhance a child's care environment.

2.2.3 Parental Mental Health and Family Relations: Paid family leave—especially during the postpartum period—can also affect maternal mental health. Stress, anxiety, and depression among caregivers are important risk factors for physical abuse and neglect (Stith et al., 2009). If these psychological issues result in caregivers developing unhealthy coping strategies, such as substance use and abuse, children can be at a greater risk of maltreatment (Bullinger & Ward, 2021). Recent research shows that California's PFL program improved mental health among mothers (Bullinger, 2019; Doran et al., 2020; Irish et al., 2021; Lee et al., 2020) and reduced alcohol consumption (Lee et al., 2020), both which may serve as protective factors against child maltreatment. However, related but distinct from mental health is the issue that providing full-time care for an infant can be stressful. If new parents are not well-supported, infants may be at a greater risk for harm.

PFL can also improve intra-family relations and reduce conflict within the household, as well. For example, father's leave-taking is associated with increased engagement in parenting (Petts & Knoester, 2018; Pragg & Knoester, 2017; Seward, Yeeatts, & Zottarelli, 2002), more coparenting (Petts & Knoester, 2020), and greater relationship stability (Petts, Carlson, et al., 2020), which can affect child maltreatment (Schneider, 2016). Father leave-taking is also associated with better child-father relationships (Petts, Knoester, & Waldfogel, 2020), even among non-resident fathers (Pilkaukas & Schneider, 2020). Furthermore, evidence from other countries shows that when fathers have greater access to leave post-childbirth, both mental and physical maternal health improves (Persson & Rossin-Slater,

2019), and long-term sex specialization within the household reduces (Patnaik, 2019). After California's PFL program, parents were more likely to take leave at the same time (Bartel et al., 2018), and father's leave-taking also increased modestly (Baum & Ruhm, 2016). If these changes affect family conflict and shift the balance of power in family relationships, children's well-being may be affected (Berger, 2005; Schneider, 2016).

2.2.4. Empirical Evidence of PFL on Children in the U.S. Many studies of the effects of PFL on child outcomes have been conducted outside the U.S., limiting their generalizability to the U.S. (Currie & Rossin-Slater, 2015). Although the literature on how PFL impacts children in the U.S. is scarce, it is fairly consistent. For example, in one of the first studies, Kleven et al. (2016) found that the 2004 California PFL policy was associated with a reduction of 5.1 abusive head trauma admissions per 100,000 children under 1 year of age. However, the effect took several years to manifest, suggesting either a delayed effect due to the gradual take-up of the California program, or that there may be some other factor driving the results. Tanis et al. (2024) compare the infant maltreatment report rate in states with PFL programs to those without and find lower rates in PFL states.

Other studies find improvements for infant health and well-being (Bullinger, 2019; Chatterji et al., 2022; Montoya-Williams et al., 2020; Pihl & Basso, 2019; Roy Choudhury & Polacheck, 2021). Roy Choudhury & Polacheck (2021) and Chatterji et al. (2022) both observe improvements in vaccination rates among infants in both California and New York, respectively. Pihl and Basso (2018) find a nearly 6% decrease in infant hospitalizations following implementation. This translates to approximately 4,380 hospital admissions at a cost savings of nearly \$218 million. Bullinger (2019) documents improvements in overall parent-reported infant health. Montoya-Williams et al. (2020) and Chen (2022) show declines in the post-neonatal mortality rates. Among older children (in elementary school), Lichtman-Sadot and Bell (2017) show improved health outcomes that are associated with breastfeeding, such as hearing problems, overweight, and attention-deficit/hyperactivity disorder (ADHD). Most of these studies find stronger health improvements among children from more disadvantaged backgrounds.

In sum, due to its ability to a) smooth income when the economic well-being of families worsens in the months surrounding a birth (Stanczyk, 2019), b) increase parental investments in children (Bailey et al., 2019; Bullinger, 2019; Trajkovski, 2019), and c) improve mental health among parents (Bullinger, 2019; Doran et al., 2020; Irish et al., 2021; Lee et al., 2020), we hypothesize that state-level PFL programs in the U.S. reduced reports of child maltreatment. We further expect that maltreatment types that are the result of financial strain and/or parental time use (e.g., neglect) and those that often co-occur with parental psychopathology (e.g., physical abuse) will be more strongly affected by PFL.

3.0 Data and Methodology

3.1 Data

3.1.1 Data Source: We use data on child maltreatment reports to Child Protective Services (CPS) from state child welfare administrative data, submitted to the National Child Abuse and Neglect Data System (NCANDS): Child File. This file contains report-

level information on screened-in reports, including the alleged maltreatment type (i.e., neglect, physical abuse, etc.), the disposition of the current report (i.e., substantiated, unsubstantiated, etc.), and the reporter type (i.e., social worker, medical personnel, family, friends, etc.). Each report may contain up to four unique allegations of maltreatment, and the disposition of each allegation is contained in the data file. The data cover the period 2004Q4–2020Q1, allowing comparison of pre- and post-PFL trends for three states (New Jersey (PFL implemented in 2009), Rhode Island (PFL implemented in 2014), and New York (PFL implemented in 2018); California’s program began before 2004Q4. We begin in 2004Q4 due to the completeness of data beginning in 2004 and end in 2020Q1 to avoid capturing the overall decline in maltreatment reporting that occurred during the early stages of the Covid-19 pandemic (e.g., Baron et al., 2020; Bullinger et al., 2021).

3.1.2. Measures: The outcomes of interest are child maltreatment report rates for infants (under age 1). We construct this measure by summing the total number of child maltreatment reports in each quarter-year, using the duplicate count to avoid undercounting child maltreatment occurrences. In other words, if a child was reported more than one time, they counted more than one time in the rate’s numerator. We use US child population counts to construct the child maltreatment report rate per 10,000 children for each state in our data set.

To better understand potential mechanisms, child maltreatment report rates are disaggregated into rates by maltreatment type, focusing on neglect and physical abuse, as these have been most consistently associated with income support policies. We also split by reporter type, since the increased time spent at home as a result of paid family leave likely changes who is able to observe the child. We also construct a removal rate as the number of removals per 10,000 children. In sum, our dataset is a state-quarter panel dataset, consisting of 48 states plus Washington, D.C., across 62 quarter-years, for a total sample size of 3,038. North Dakota and Oregon are excluded from the analysis, as they did not begin contributing data to NCANDS until 2012.

In general, child maltreatment reports serve as a reliable proxy for true maltreatment risk, as they trend proportionally with other measures of harm (Drake et al., 2011). Nonetheless, we also examine substantiated reports of maltreatment. These are cases in which the CPS agency has determined there is enough evidence to warrant statutory maltreatment.

3.2 Analytic Approach

Our analytical strategy takes advantage of the fact that three states implemented their PFL programs during the study period. As a result, we compare report rates of infant maltreatment in states that implemented their PFL programs relative to states that did not, before and after PFL was implemented in each state. Specifically, we estimate the following staggered difference-in-differences (DD) model:

$$CM_{sqy} = \beta_0 + \beta_1 PFL_{sqy} + \alpha_s + \delta_q + \tau_y + \varepsilon_{sqy} \quad (1)$$

where CM is the child maltreatment report rate for infants under age 1 in state s during quarter-year qy . PFL equals one for the report rate among infants in PFL states once their programs were implemented (i.e., qy is after implementation) and zero otherwise. State, quarter, and year fixed effects adjust for unobserved time-invariant heterogeneity within states, seasonality in reporting by quarter, and time trends in child maltreatment common across all infants (e.g., the Great Recession). We also bootstrap the standard errors (1,000 replications) to account for the small number of treatment clusters (MacKinnon and Web, 2016).

Estimating a staggered difference-in-differences approach using ordinary least squares could lead to biased estimates (Athey & Imbens, 2022; Callaway & Sant'Anna, 2021; De Chaisemartin & d'Haultfoeuille, 2020; Goodman-Bacon, 2021; Sun & Abraham, 2021). In particular, the observed estimates may be biased in cases where there are heterogeneous treatment effects of PFL either within-states over time or between states treated at different times. When all treated states are pooled together across groups, the latter case may also bias the leads and lags in event studies (Sun and Abraham, 2021). To account for the staggered rollout of PFL programs, we employ the Callaway & Sant'Anna's (2021) estimator, which uses "never treated" and "not yet treated" states as a control group. This approach precludes the inclusion of California since its program went into effect before the study period began. Therefore, our analytic sample consists of $n=2,976$ and our estimates are based off three PFL states (NJ, RI, and NY). Finally, this approach recommends against including covariates.

Importantly, the difference-in-differences approach assumes that non-PFL states will be a good counterfactual for the PFL states. In other words, trends in infant maltreatment reporting should follow along similar paths before PFL was implemented in both groups of states. We assess "parallel trends" assumption by performing an event study—which documents one coefficient estimate for each time period leading up to and following PFL implementation—allowing us to observe whether there were differential trends in infant maltreatment report rates across PFL and non-PFL states.

4.0 Results

Table 1 presents descriptive statistics. This table shows that maltreatment report rates for infants are, on average, lower for PFL states during the sample period. Substantiation rates, however, were lower in non-PFL states. Reports of neglect are higher for PFL states than non-PFL states, but physical abuse and removals are greater in non-PFL states throughout the duration of this time period. Note, however, that the "post-PFL" time period is grouped with the "pre-PFL" time period for PFL states and may reflect potential changes due to PFL.

Figure 1 further dissects the overall infant maltreatment report rate by PFL states and control states, where each vertical line corresponds to a specific state's PFL implementation date. Visually, when compared to the control states, although the overall trend for the total report rate is generally increasing, it appears to decelerate immediately following each state's PFL implementation.

Figure 2 documents the event study analysis for the overall infant report rate, based on the Callaway & Sant'Anna (2021) estimate accounting for staggered PFL rollout across states. This figure shows the estimates for each quarter leading up to and following PFL implementation. Importantly, this figure shows no consistent differences in PFL states to non-PFL states in infant maltreatment reporting in the quarters leading up to PFL implementation. There appears to be a slight decrease in infant maltreatment reports in the two quarters before PFL implementation, relative to the omitted time period of one quarter before PFL was implemented. Following PFL adoption, the estimates jump to zero, then gradually lower and remain negative for at least 3 years.

Figure 3 shows the event study analysis for infant substantiation rate. Similarly, this figure shows no consistent differences in PFL states to non-PFL states in infant substantiation rates in the pre-PFL period. After PFL, there is no obvious and consistent change in the substantiation report rate.

Table 2 summarizes the overall effect of PFL on infant maltreatment report rates. This table shows reductions in infant maltreatment report rates of about 8.32 reports per 10,000 children ($p < 0.01$). Relative to the mean value of 61.23, this reduction represents about a roughly 14 percent decline. When split by maltreatment type, estimates suggest declines in neglect and physical abuse, however, these estimates are not significantly different from zero. Substantiated rates of infant maltreatment also decrease by about 5.5 reports per 10,000 children ($p < 0.01$), which represents a decrease of about 22 percent. The decline in substantiations is largely coming from fewer substantiated cases of neglect, where we see a reduction of 8.4 per 10,000 children ($p < 0.05$). Finally, we also observe reductions in removals of 3.71 per 10,000 children, or about 46 percent ($p < 0.01$).

Appendix A displays the “by group” estimates as reported in the Callaway & Sant'Anna (2021) estimates. In other words, this table decomposes the overall estimate on report rates into each treatment state's estimate. Here we see that Rhode Island and New Jersey tend to be driving the observed effects. We discuss this feature of the data in greater detail in the discussion.

To better understand where the reduction in reports is originating, we next examine changes in report rates by reporter type. Table 3 shows reductions of infant maltreatment reports from social services, medical providers, “educational personnel,” and parents themselves. In other words, one type of reporter does not appear to be driving the effects.

5.0 Discussion and Conclusion

We examine the effect of state paid family leave (PFL) programs in the U.S. on infant maltreatment reports. We compare maltreatment report rates of infants under age one in PFL states to infant report rates in non-PFL states before and after PFL was implemented in each PFL state. We find that PFL reduced overall reports of maltreatment, with comparable reductions in reports of neglect and physical abuse. That is, neither type of child maltreatment is driving the finding but rather both are contributing to the reduction. This is likely because the many mechanisms explored in the literature review—an increase

in compensated time to stay at home with a newborn alleviates financial, time, and stress pressures while also leading to uptake of healthy behaviors like vaccine uptake—leads to risk reductions across maltreatment types. Given PFL has the potential to positively affect so many domains of an infant’s caretakers, this may help explain the reduction in home removals, which are typically employed when the overall home environment is not safe for a child.

We also find reductions in substantiated reports of maltreatment. Given that we find that the reductions in reporting come from multiple places: social services, medical care providers, education personnel, and parents (and with most other categories being negative but not significant) we do not think substantiations are driven by changes in one particular reporter type. We also note that there has been a long-standing debate in the literature about how we should interpret the reliability of substantiation rates (Drake et al., 2003). They tend to not correlate well with child-risk or predict future re-report for maltreatment. Instead, reports occur when a person observes a child and believes them to be at risk of maltreatment. Therefore, we believe the results on report rates and removal rates are much more meaningful than the substantiated report rates. Overall, our results indicate that PFL adoption reduces reporting across many types of reporters, substantiated rates of maltreatment, and home removals, indicating that PFL is protective for infants.

When considering our findings, it is important to know that our measure of child maltreatment reports is an imperfect measure of child harm (Fallon et al., 2010). Many scholars view the official child maltreatment rates (which come from the data we have used in this paper) as an undercount of harm experienced by children. However, others cite low substantiation rates as evidence that children are over-reported to CPS (Besharov, 1990). Our study is not set out to measure the precise levels of child maltreatment, but rather the *change* due to PFL adoption. As long the errors in child maltreatment reporting are not correlated with the adoption of PFL policies, then our strategy yields an unbiased measure of how much the adoption of PFL policies affect child maltreatment rates. We also note that child maltreatment is an egregious form of child harm, and PFL policies could also affect other types of child harm and child well-being.

Though our results are important for policymakers and practitioners to know, and important in the broader PFL discussion, our data do not allow us to disentangle mechanisms. These reductions may suggest an income effect, changes in parental time use or engagement, or improvements in parental well-being. For example, perhaps the reduction in overall report rates signals fewer “light touch” reports more closely associated with poverty coming to the attention of child welfare agencies, leaving room for the more serious cases of maltreatment to emerge. The reductions in parent reports may signal more time spent with parents and less risky caregivers.

An important consideration is which new parents are able to take advantage of PFL and how PFL-eligible parents overlap with the population at risk for CPS involvement. As previously discussed, poverty is a risk factor for child maltreatment, which would indicate new parents—most likely mothers—would not have a strong attachment to the labor force or work in a job that makes them PFL-eligible (based on tenure, number of hours worked, firm size,

etc.). Moreover, even if a new mother is eligible, she may not be able to take time off for less than her full wage. For all these reasons, PFL uptake among low-wage mothers is likely lower than middle- and high-wage mothers (as seen in California and documented by Pihl and Basso, 2019). If the population most at risk for child maltreatment does not have equal or adequate access to a protective policy, this speaks to a reason for policymakers to consider expansion or improved access among those who are the most vulnerable. Doing so would increase the protective effects of the policy and mean that the estimates found here are attenuated.

Our analysis uses aggregate-level data. This approach is common in child maltreatment research, and while it has several strengths, it also has limitations. The first is that these are intent-to-treat estimates, as opposed to treatment-on-the-treated estimates. In other words, our aggregation implicitly assumes that infants in PFL states have parents that are eligible for or enrolled in the PFL program, but we cannot verify this assumption or exclude those children that do not meet this requirement. Relatedly, although the NCANDS data include information on alleged perpetrators, in practice this variable is mostly missing. Ideally, we would like to show that child maltreatment perpetrated by parents is the most responsive to PFL policies, and though caregivers are by far the most common group to perpetrate child maltreatment, our data do not allow to make distinctions among whose perpetrations fall following PFL implementation.

Lichtman-Sadot (2016) finds women shifted the timing of their births in response to PFL in the short-term. Golightly & Meyerhofer (2022) also find increases in fertility among higher birth order births and older mothers. Though these shifts may have been short-lived, they may contribute to short-term demographic shifts in parenting and may also be the influence behind the change in infant maltreatment in the quarters before PFL implementation. Nonetheless, if the results are operating through changes in the composition of mothers this finding is still an important effect of paid family leave programs worth documenting.

Our analysis indicated an overall reduction in infant maltreatment reports, substantiated reports, and home removals as a result of PFL. Upon further interrogation (Appendix A), we find that these effects tend to be driven by New Jersey and Rhode Island. In FY2014—the same year the PFL program was implemented in Rhode Island—the state changed the way various maltreatment types were coded. For example, domestic violence switched to become categorized as emotional abuse instead of neglect (DCYF, 2016, pg. 2). Although this change would affect each of the maltreatment types and could influence the substantiation rate, it would not influence the overall report rate and home removal rate. As a result, we put more emphasis on the findings for total report rate and home removals, where all three treatment states are less subject to these changes in reporting categorization.

In this study, we offer three specific contributions to the literature and to ongoing PFL policy debates. First, this research adds to the literature demonstrating the potential scope of PFL effects. By measuring child well-being, this work has implications for the development of human capital due to the well-established long-term relationship between child well-being and adult health and human capital. This work can expand the conversation of PFL beyond traditionally studied outcomes, such as labor market and health effects, to incorporate

measures of involvement with child welfare agencies. Understanding how PFL operates will allow policymakers to strengthen existing PFL programs and may also inform how other programs can be bolstered to support families or children that do not directly benefit from PFL (such as older children). Child welfare agencies spent over \$29 billion in 2014 alone (which does not include indirect or long-term societal costs of child maltreatment). There are potentially vast implications for government budgets and other macroeconomic factors (Connelly & Rosinsky, 2018). In addition to demonstrating possible cross-program interactions between family services and employment services, this work may in turn offer a more complete cost-benefit analysis of PFL programs.

Second, much of the research on paid family leave in the U.S. has focused on California. This study includes the subsequent three state PFL programs that were implemented in the U.S. (New Jersey, Rhode Island, and New York). This feature of the study is important due to the differences across state PFL programs, and the consistency of the findings with earlier research on California's PFL and child outcomes.

Finally, we add to the recently emerging evidence base for the role of public policies providing economic supports for families in child maltreatment prevention. Policies that increase household incomes have been shown to reduce child maltreatment, particularly for younger children (Berger et al., 2017; Biehl & Hill, 2018; Cancian et al., 2013; Kleven et al., 2015, 2017; Raissian & Bullinger, 2017; Rostad, Kleven, et al., 2020; Rostad, Ports, et al., 2020). The results from this study are consistent with this body of research and add to the considerations policymakers may wish to take into account as debates concerning the adoption of PFL continue at both the state and federal levels.

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Appendix A.: Main Results for Report Rates, with CS Estimates by Group

	Total	Neglect	Physical Abuse	Removals
Reports				
CS Estimate	-8.32 ***	-8.59	-3.68	
SE	(2.54)	(7.35)	(3.37)	
Mean Y in Treatment States	61.23	53.55	7.41	

	Total	Neglect	Physical Abuse	Removals
Relative % Change	-13.6%	-16.0%	-49.6%	
CS Estimates by Group				
New Jersey	-7.06 ***	-0.45	-7.48 ***	-3.13 ***
SE	(2.25)	(2.04)	(1.87)	(0.42)
Rhode Island	-13.01 ***	-25.72 ***	1.87	-6.04 ***
SE	(2.11)	(1.93)	(2.62)	(0.52)
New York	-1.58	-1.69	-0.08	-0.11
SE	(1.10)	(0.83)	(0.68)	(0.28)

Source: NCANDS 2004q4–2020q1. Notes: N=2,976. PFL States include New Jersey (2009), Rhode Island (2010), New York (2018). States that implemented a PFL program before the study period are dropped (e.g., California in 2004). States that implemented a PFL program after the study period are considered control/non-PFL states. Regressions employ the Callaway & Sant’Anna (2021) estimator for a staggered difference-in-difference approach. Bootstrapped standard errors (1,000 replications) are in parentheses.

*
p<0.10,

**
p<0.05,

p<0.01

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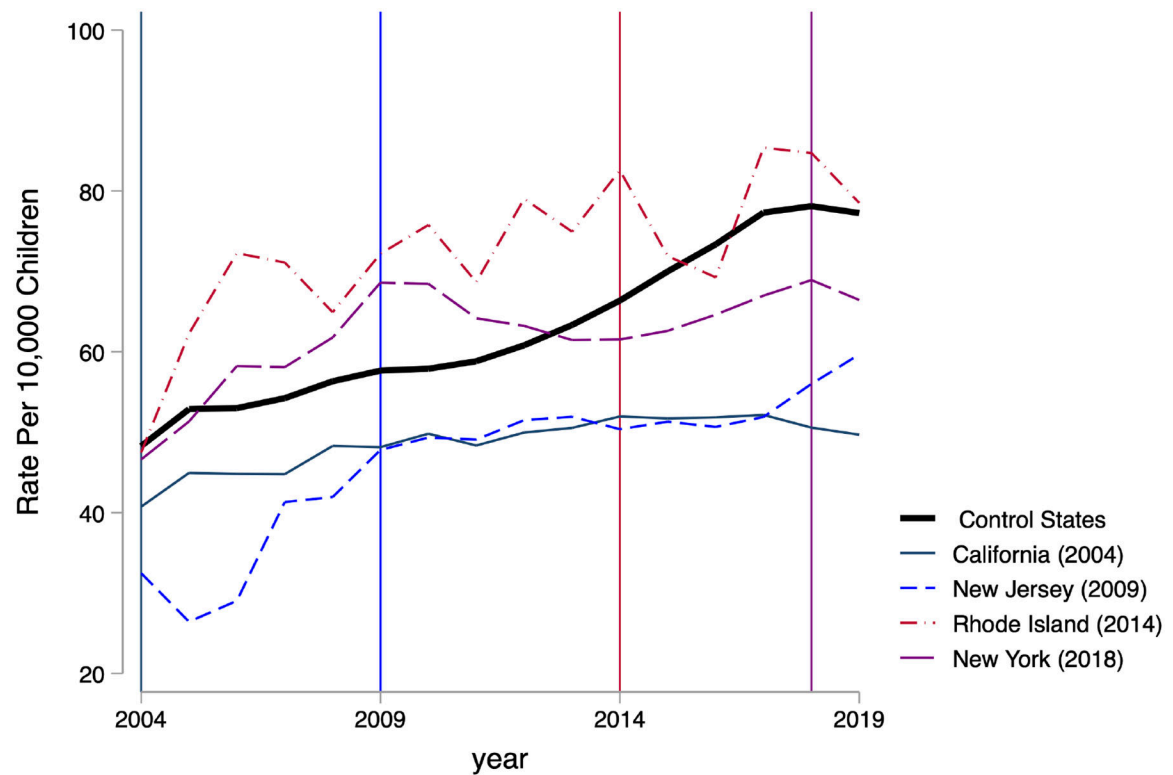


Figure 1. Trends in Infant Maltreatment Report Rates, by PFL Program Status

Source: NCANDS 2004q4–2020q1. Notes: PFL States include New Jersey (2009), Rhode Island (2014), New York (2018). California implemented a PFL program before the study period (in 2004) and is only included in Figure 1 for visual representation. States that implemented a PFL program after the study period are considered control/non-PFL states. The unit of analysis is the state-quarter.

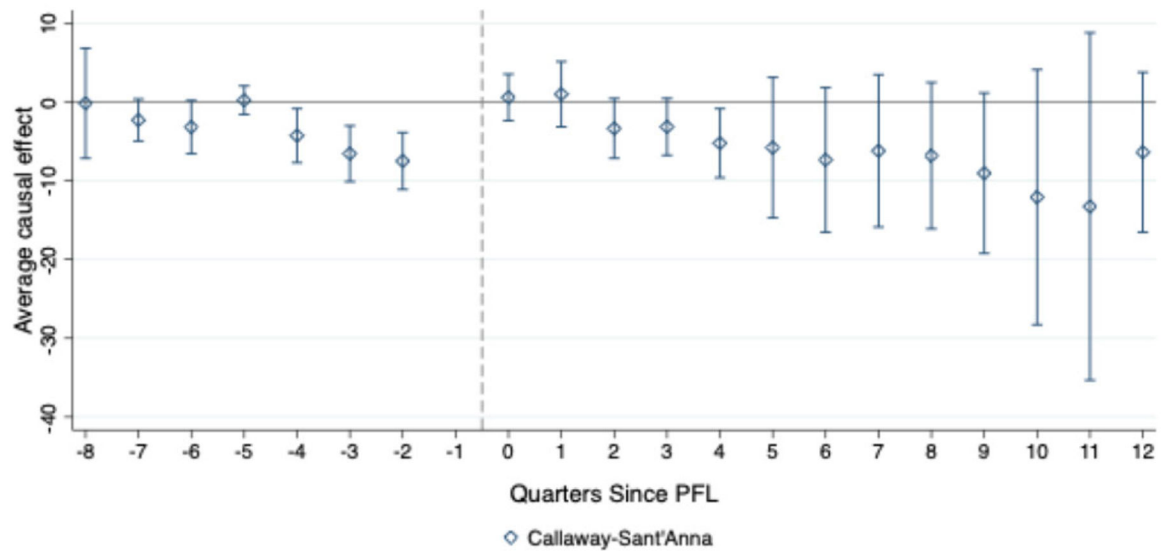


Figure 2. Event Study of Effect of PFL on Infant Maltreatment Report Rate

Source: NCANDS 2004q4–2020q1. Notes: PFL States include New Jersey (2009), Rhode Island (2014), New York (2018). States that implemented a PFL program before the study period are dropped (e.g., California in 2004). States that implemented a PFL program after the study period are considered control/non-PFL states. The unit of analysis is the state-quarter.

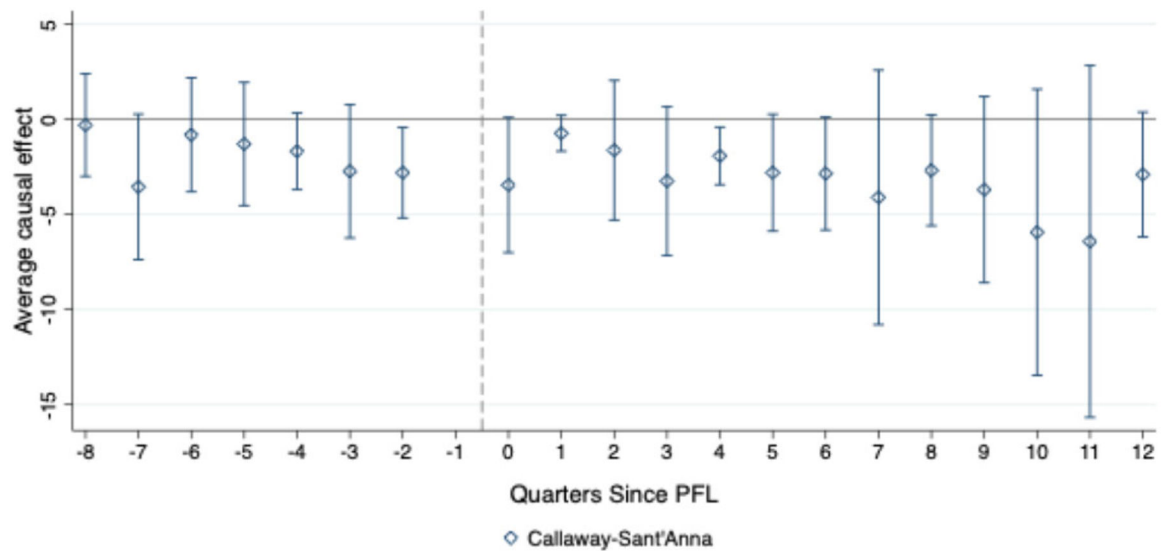


Figure 3. Event Study of Effect of PFL on Infant Maltreatment Substantiation Rate

Source: NCANDS 2004q4–2020q1. Notes: PFL States include New Jersey (2009), Rhode Island (2014), New York (2018). States that implemented a PFL program before the study period are dropped (e.g., California in 2004). States that implemented a PFL program after the study period are considered control/non-PFL states. The unit of analysis is the state-quarter.

Table 1.

Descriptive Statistics

	PFL States		Non-PFL States	
	Mean	SD	Mean	SD
Child Outcomes Per 1,000 Children				
Total Reports	61.2	13.7	63.8	31.9
Neglect Reports	53.5	13.2	49.2	30.1
Physical Abuse Reports	7.4	4.9	13.2	18.5
Total Substantiations	24.3	12.5	20.2	12.6
Neglect Substantiations	20.4	9.5	16.2	12.0
Physical Abuse Substantiations	4.4	4.9	4.7	6.6
Removals	7.9	7.0	8.2	5.2
Reports Per 1,000 Children, by Reporter Type				
Social Services	9.6	7.3	10.1	10.8
Medical Providers	16.4	10.0	17.0	13.1
Mental Health Providers	0.8	0.5	1.1	1.2
Law Enforcement	10.5	4.6	10.7	6.6
Educational Personnel	2.3	1.5	1.8	1.7
Daycare Staff	0.2	0.2	0.4	0.4
Parents	2.9	0.7	2.4	1.9
Family	3.9	1.4	5.0	3.3
Neighbors	2.8	1.3	2.8	2.6
N	186		2790	

Source: NCANDS 2004q4–2020q1. Notes: PFL States include New Jersey (2009), Rhode Island (2010), New York (2018). States that implemented a PFL program before the study period are dropped (e.g., California in 2004). States that implemented a PFL program after the study period are considered control/non-PFL states. The unit of analysis is the state-quarter.

Table 2.
Effect of PFL on Infant Maltreatment Report Rates, by Maltreatment Type

	Total	Neglect	Physical Abuse	Removals
Panel A: Reports				
CS Estimate	-8.32 ***	-8.59	-3.68	
SE	(2.54)	(7.35)	(3.37)	
Mean Y in Treatment States	61.23	53.55	7.41	
Relative % Change	-13.6%	-16.0%	-49.6%	
Panel B: Substantiated Reports				
CS Estimate	-5.50 ***	-8.40 **	0.23	-3.71 ***
SE	(1.10)	(3.99)	(2.25)	(0.98)
Mean Y in Treatment States	24.30	20.43	4.38	7.92
Relative % Change	-22.6%	-41.1%	5.3%	-46.8%

Source: NCANDS 2004q4–2020q1. Notes: N=2,976. PFL States include New Jersey (2009), Rhode Island (2010), New York (2018). States that implemented a PFL program before the study period are dropped (e.g., California in 2004). States that implemented a PFL program after the study period are considered control/non-PFL states. Regressions employ the Callaway & Sant’Anna (2021) estimator for a staggered difference-in-difference approach. Bootstrapped standard errors (1,000 replications) are in parentheses.

*
p<0.10,

**
p<0.05,

p<0.01

Table 3.
Effect of PFL on Infant Maltreatment Report Rates, by Reporter Type

	Social Services	Medical Providers	Mental Health Providers	Law Enforce- ment	Edu- cational Personnel	Daycare	Parents	Family	Neigh- bors
Average Treatment Effects (CS Estimate)	-2.27 ***	-3.23 ***	0.10	-0.59	-0.70 **	-0.29	-0.30 *	-0.13	-0.14
SE	(0.84)	(1.03)	(0.07)	(1.71)	(0.32)	(0.30)	(0.15)	(0.31)	(0.56)
Mean Y in PFL states	9.57	16.35	0.82	10.50	2.33	0.20	2.88	3.91	2.84
Relative % Change	-23.7%	-19.8%	12.1%	-5.6%	-30.0%	-144.8%	-10.4%	-3.3%	-4.9%

Source: NCANDS 2004q4–2020q1. Notes: N=2,976. PFL States include New Jersey (2009), Rhode Island (2014), New York (2018). States that implemented a PFL program before the study period are dropped (e.g., California in 2004). States that implemented a PFL program after the study period are considered control/non-PFL states. Regressions employ the Callaway & Sant’Anna (2021) estimator for a staggered difference-in-difference approach.

*
p<0.10,

**
p<0.05,

p<0.01