Paid Family Leave Laws and Firm Resource Allocation

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THIS DRAFT: April 8, 2023

Abstract

Using the adoption of state-level Paid Family Leave (PFL) laws as an exogenous shock to local labor markets, I examine how firms reallocate labor internally and adjust aggregate investment. Consistent with a reduction in labor market frictions, I find firms reallocate employees to treated establishments, increase the number of employees and establishments in the treated states, and reduce aggregate investment in capital expenditures. This change in investment policy supports the substitutability of labor and capital in a firm's production function. Collectively, the evidence supports the argument that the adoption of a PFL program attracts business activity to the state.

JEL Classification: G30; J01; J24; L22

Keywords: Labor Markets, Investment, Human Capital, Paid Family Leave, Corporate Finance

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1 Introduction

The inherent success of a firm relies heavily on its employees. In a recent survey paper, Graham (2022) confirms this statement and finds that firms that take a stakeholder-centric approach rank employees as the most important stakeholder to the firm. This should come as no surprise since modern firms have become more reliant on their employees (Zingales, 2000). With employees becoming a central focus, firms will need to be diligent in their ability to attract and retain employees. One way that firms can attract and retain high-quality employees is to offer paid family leave as a benefit (Liu et al., 2021). However, offering these paid family leave benefits can be very costly for firms and some employees might not value them. Recently, states throughout the U.S. have begun to enact state-level Paid Family Leave (PFL) laws that provide this benefit to employees within the state, at little to no direct financial cost for the firm.

In this paper, I use the staggered adoption PFL laws in the United States as an exogenous shock to examine how firms reallocate employees across their establishments and adjust their investment policies in response to a change in local labor markets. PFL laws are passed at the state-level and provide job-protected paid leave to employees for the purpose of bonding with a newborn baby, a newly adopted child, or to provide care to a sick family member. Although support for the passage of PFL laws has gained traction in recent years, critics continue to argue that employee access to job-protected paid parental leave will impose excessive costs on firms, even if the firm does not have to pay for the benefit[1].

Nearly all of the state-level PFL programs are funded through an employee payroll tax, so the direct financial costs to the firm of paying for the paid family leave benefit is alleviated (Summers, 1989). The ability to offer paid family leave to employees without paying for the benefit makes it more appealing for firms to locate operations and employees within states that provide this benefit. However, there are other indirect costs of the paid family leave benefits that firms need to consider. This includes the costs associated with things such as lost productivity, or the costs of wages for temporary workers that cover for the employee

[1] In Section 2 I provide a more detailed discussion on the institutional background of PFL laws in the United States.

on leave. Therefore, paid family leave benefits that are funded through an employee payroll tax may still be extremely costly to firms. The costs, both direct and indirect, of the PFL programs to firms is where both the proponents, and opponents of the programs find their footing.

Proponents of PFL laws argue that firms will benefit from reduced labor market frictions. For example, employees that previously would have left the labor force following the birth of a child are now provided job protected paid leave and are able to remain employed following the birth of a child (Baker and Milligan (2008)).[2] Further, individuals that remained out of the labor force may find it beneficial to rejoin the labor force to access the benefits provided by the PFL laws (Ruhm (1998); Blau and Kahn (2013)). Taken together, this will lead to an increase in the local labor supply where the PFL program is in effect. An increase in the local labor supply will put downward pressure on wages, *ceteris paribus*. Assuming that capital and labor are substitutes in production, a decrease in wages will lead firms to increase investment in labor and decrease investment in capital.

On the other side, opponents of PFL laws argue that employees may take advantage of the program and the benefits provided by the laws. Bartel et al. (2021) invalidates this argument by showing that there is no significant impact employee performance following the passage of a PFL law. Opponents also argue that firm specific human capital may become less valuable since there is no guarantee that the employee will return to work following the paid family leave. Gottlieb et al. (2021) find support for this argument and show that following an extended leave, employees are more likely to become entrepreneurs instead of returning to work. If this is a concern for firms, and again assuming that capital and labor are substitutes in production, firms will increase investment in capital and reduce investment in labor, *ceteris paribus*.

Using establishment-level data from the Your-economy Time Series (YTS) database, I find support for the proponents of PFL laws. Specifically, I find evidence that PFL laws lead to an increase in investment in labor and a decrease in investment in capital expenditures.

[2]Not all PFL laws explicitly provide job protection to employees that take advantage of the program, however, in the events where the PFL does not provide job protection an additional state law is passed along side the PFL law that does provide job protection.

To infer a causal interpretation and alleviate the recent concerns that have been raised in regard to the use of a two-way fixed effects (TWFE) estimator when treatment is staggered (Goodman-Bacon (2021); Baker et al. (2022); De Chaisemartin and D'Haultfoeuille (2022)), I implement a *Stacked* Difference-in-Difference (DiD) approach following Cengiz et al. (2019) and Pant et al. (2022) in my main establishment-level tests. To ensure the parallel trends assumption holds in the pre-treatment period, I implement dynamic regressions for each analysis. The rigor of these tests ensures the estimates from this DiD approach provide valid estimates of the effect of PFL laws on employee allocation across establishments.

I begin my analysis by documenting a reduction in labor market frictions within the treated states following the passage of a PFL law. To do this I implement the Callaway and Sant'Anna (2021) estimator and examine the counties along the state border for the treated states and the neighboring control states. Consistent with PFL laws being labor friendly and incentivizing employees to either remain in or join the workforce, I find a significant increase in the number of employees located in treated counties along the state border in comparison to the control counties directly across the border in the control state for the year immediately after the passage of a PFL law. The magnitude of the increase is sizeable as well, with an average treatment effect of a 4.4% increase in the number of employees in the county in the year following the PFL law passage. This is much larger than the sample median county percent change in the number of employees of 0.6%.

In my first establishment-level analysis I examine the intensive margin and show that following the passage of a PFL law, firms reallocate employees to the establishments located in the treated states and away from their other establishments located in untreated states. This result is robust to a variety of control variables and fixed effects, including industry-year-cohort, establishment-cohort, and state-cohort fixed effects[3]. The reallocation of employees across establishments in response to a local labor law where the firm has operations that I document is consistent with the result of Giroud and Mueller (2015). The key difference between my study and their study is that I examine the effect of exogenous changes to local labor laws whereas they examine exogenous changes to firm monitoring costs.

[3] By saturating the model and including a variety of fixed-effects I mitigate the concern of any unobservable factors having a confounding effect on the reallocation of employees.

To better understand the dynamics of how firms reallocate their resources I next examine the extensive margin. In a survey paper, Bartik (1991) concludes that labor costs play a significant role in where a firm locates operations. Giroud and Rauh (2019) find that following an increase in state tax rates corporate entities reduce the number of employees and the number of establishments in the state. If PFL laws make the state more attractive for firms to invest in, then the total number of employees and the total locations owned by a firm within the state should increase following the passage of a state-level PFL law. I find that following the passage of a state-level PFL law, firms increase the total number of employees and the total number of locations owned in the treated states compared to the number of employees and locations located in the neighboring border states. By increasing the number of employees and locations in states with PFL laws, firms are signaling that they find PFL laws beneficial, lending further support to the argument that both employees and firms can benefit from PFL laws.

In summary, at the intensive margin, following the passage of a PFL law, firms increase the number of employees at establishments located in the treated states and reduce the number of employees at establishments located in untreated states. I find consistent results at the extensive margin and find that firms increase the total number of employees and locations within treated states following the passage of a PFL law. This granular establishment-level analysis provides insight into the efficient reallocation of the firm's employees following a shock to local labor laws, showing that, not only employees, but also the firms that employ them can benefit from a state provided paid parental leave program.

My final analysis examines the aggregate firm-level effects of state-level PFL laws. As discussed above, if labor and capital are substitutes in production, a decrease in the cost of either input is expected to lead to more investment in that input and less investment in the other. I find support for this argument and show that following the passage of a state-level PFL law in a state where the firm has operations, investment in capital expenditures decreases significantly compared to firms without operations in a state with a PFL law. At the same time I find some evidence of an increase in total firm employment following the passage of a PFL law. This is consistent with the result of Dougal et al. (2015) who find that firm

investment decisions are largely influenced by location-based time-varying factors. The location of firm operations and the local labor laws that govern them have an effect on the firm's investment decisions.

Additionally, I exploit several dimensions of cross-sectional heterogeneity in additional tests at the intensive margin, extensive margin, and aggregate firm-level. I find that the results are more pronounced for firms that are financially constrained and for firms that are more labor intensive. These results are intuitive and provide further support for the argument that PFL laws increase the labor supply and make the state more attractive for firms to invest in. Lastly, to address the endogeneity concerns with firms that have operations in the treated states being different from firms without operations in the treated states, I complete my firm-level regressions on a matched sample. Specifically, at the firm-level I employ entropy-balancing to ensure the observable characteristics of the treated firms are similar to the characteristics of the untreated firms. Entropy balancing reweights the sample observations to ensure the treatment and control groups are derived from similar distributions (Hainmueller, 2012). My results are robust to using the entropy-balanced sample.

This paper contributes to the relatively new, but rapidly growing literature that documents the effect of paid family and medical leave laws on firms. Currently, whether paid family leave benefits are beneficial or detrimental to firms is still up for debate. Appelbaum and Milkman (2015) conducted a survey of California employers, a majority of whom reported a positive or insignificant effect of PFL laws/benefits on firm productivity, profitability, employee turnover, and employee morale. Examining a Danish reform to paid family leave benefits, Brenøe et al. (2020) do not find significant negative effects on firms and suggest that the cost of paid family leave to employers is relatively small. Bennett et al. (2020) find that firms headquartered in a treated state experience improved profitability following the passage of a PFL law. Lim (2021) argues that innovative firms benefit more from the passage of a PFL law through a reduction in labor market frictions, which allows the innovative firms to access more high-skilled human capital.

In contrast, several studies find a negative effect of PFL laws on firms. Ginja et al. (2020) find that following an expansion to the parental leave benefit in Sweden, employers experi-

enced higher wage costs driven by increased hiring and hours for existing employees. Gallen (2019) studies the same Danish reform to paid family leave as Brenøe et al. (2020) and finds the probability of firm shut-down increases after the reform. Huebener et al. (2022) study a German reform to paid family leave benefits and find that firms with difficult to replace labor experience negative effects driven by increased costs associated with hiring new workers to cover for the employee on leave.

I add to this literature by examining the impact of PFL laws on the firm's labor reallocation and investment strategies. Understanding the impact of PFL laws on firms is important on two levels. First, it has direct policy implications. Paid family leave laws have become front and center in the political debate with more and more states passing such laws. Additionally, the Business Roundtable has sent several letters to the US Congress pushing for such legislation at the federal level suggesting firms benefit from mandatory paid family leave[4].

Second, it will affect nearly all employees that work within the treated states. Much of the existing PFL literature focuses on the effect of PFL laws on female workers. Although PFL programs are more beneficial to female employees, these laws have implications for all the non-female employees as well. In support of this argument, Bartel et al. (2018) examines the paid family leave program in California and finds that the law increases parental leave taking by fathers. Several additional studies on the California PFL program find similar results and show that the rate of male participation in PFL programs has been steadily increasing from year to year (Chee and Nation (2020); Cowan and Kallerman (2021)). According to Cowan and Kallerman (2021), the percentage of PFL claims made by male workers in California has increased from 16% of the total claims in 2004 when the program began to 38% of the total claims in 2018. This provides support for the notion that all employees within the state will be impacted by the passage of a state-level PFL law.

This paper also contributes to the literature on the relationship between local labor laws

[4]In December of 2019 Ginni Rometty, Chairman, President and CEO of IBM Corporation and Chair of the Business Roundtable Education and Workforce Committee sent a letter to Congress, as well as the President urging them to take action related to paid family and medical leave. The letters can be found at https://www.businessroundtable.org/business-roundtable-urges-congress-to-act-promptly-on-paid-family-and-medical-leave.

and firm outcomes. Serfling (2016) finds a causal relationship between firing costs and firm capital structure. Bai et al. (2020) provide evidence that greater employment protection leads to lower investment rates for firms. Al-Sabah and Ouimet (2021) show that following the introduction of mandated paid sick leave policies, county-level employment increases. I add to this literature by studying how a shock to local labor market frictions affects firm investment policies. It is important to understand the interplay of investment in labor and investment in capital expenditures. As we go into the future the firm's labor force will continue to become more important for firms. Therefore, as firms continue to innovate and grow, they will need to assure that they have quality human capital to meet their firm specific needs (Zingales, 2000).

Finally, this paper also contributes to the internal markets literature. Stein (1997) suggests that firms benefit from internal markets by gaining the ability to reallocate resources away from projects with poor prospects and towards projects with greater potential. Giroud and Mueller (2015) provide evidence that firms efficiently reallocate resources internally following a reduction in information transfer costs. Similarly, Tate and Yang (2015) suggest that diversified firms can allocate human capital more efficiently internally compared to the open market. I contribute to this literature by showing how firms are able to reallocate employees internally following a shock to a local labor markets where the firm has operations.

The remainder of the paper is organized as follows. I discuss the institutional background of PFL laws and provide the motivation for my hypotheses in Section 2. Section 3 discusses the data sources and methodology. The establishment-level and aggregate firm-level results are discussed in Section 4. Section 5 concludes.

2 Institutional Background and Motivation

2.1 Family Medical Leave Laws in the US

The United States is currently the only developed country in the world that does not provide its citizens with job-protected paid time off to care for a newborn child. In 1993

the United States took the first step toward providing such a benefit to its citizens with the passage of the Family Medical Leave Act (FMLA). The Family Medical Leave Act requires all firms with 50 or more employees to provide unpaid time off for major medical events including the care for a newborn child. Passage of the Family and Medical Leave Act was a step in the right direction, however, the design of the program left many employees ineligible for the benefit. Even if an employee is eligible to take FMLA leave, they may be reluctant to use the benefit due to a loss of income. The shortcomings of the FMLA program prompted the call for a more inclusive paid family medical leave program.

There has been little progress made at the federal level when it comes to designing a more inclusive program that provides job-protected paid parental leave. The most recent attempt to pass a federal paid family leave program came in 2021. The Build Back Better Act[5] included a federally funded paid family leave program and was passed by the house of representatives. However, the bill failed to gain traction and was rebranded as the Inflation Reduction Act[6] leaving out the paid family leave program. Given the difficulty that paid family leave legislation has had at the federal level, many states have taken matters into their own hands with the passage of state-level PFL laws. The state-level PFL laws address a major shortcoming of FMLA providing paid time off rather than unpaid time off.[7]

As with many policies in the US, paid family leave is taking a bottom-up implementation approach. That is, policy is being implemented at the state-level before being implemented at the national-level. As of 2022, eleven states plus the District of Columbia have passed a PFL law mandating a paid parental leave benefit. California became the first state to pass a PFL law which became effective in 2004 and Delaware is the most recent state to pass a PFL law, doing so in 2022. Table 1 provides the full list of states, along with when the law was enacted, when the law becomes effective, and how the program is funded. Despite a greater number of states passing a PFL law, in a 2021 survey the U.S. Bureau of Labor Statistics (BLS) found that only around 23% of workers in the US have access to paid family leave through

[5] https://www.shrm.org/resourcesandtools/hr-topics/benefits/pages/house-passes-build-back-better-act-with-paid-leave-and-aca-subsidy-provisions.aspx

[6] https://www.congress.gov/bill/117th-congress/house-bill/5376/text

[7] For more information on the Family and Medical Leave Act (FMLA) see https://www.dol.gov/agencies/whd/fmla.

their employer. This survey provides evidence that many employees still do not have access to a paid parental leave benefit in the US.

To be competitive in labor market and attract skilled labor, employers should strive to provide benefits that their employees desire. Given that many employers still do not offer paid parental leave programs, one might wonder whether employees indeed perceive this type of benefit as valuable. In a 2016 survey on parental leave conducted by Deloitte[8], an overwhelming majority of employee respondents (77%) stated that the amount of paid parental leave benefits offered by an employer could influence their decision to join the firm, providing anecdotal evidence for paid parental leave programs being valuable to employees. Empirical evidence also suggest that employees value parental leave benefits. Rossin-Slater et al. (2013) examine how California's paid family leave program usage among mothers and find that the program doubled the overall use of maternity leave. As discussed earlier, Bartel et al. (2018) find an increase in leave taking among Californian fathers. Finally, Baum and Ruhm (2016) find consistent results in California, showing an increase in leave taking among mothers and fathers. Together, this evidence suggests that paid family leave benefits are valuable to employees.

Since many firms still do not offer paid parental leave benefits to their employees, the costs of offering paid parental leave may still outweigh the benefits to the firm. Table 1 shows that employers in Washington D.C. are the only employers that are responsible for completely funding the contributions to the program. In nearly every other state the program is completely funded by employees through a payroll tax. When the PFL program is funded through an employee payroll tax, firms do not incur any direct costs of providing paid parental leave benefits. However, even though the direct costs are mitigated, firms may still incur other costs associated with hiring temporary workers and/or overtime wages for existing employees as they cover for the employee on leave. Additionally, when high-skilled employees take leaves, firms may experience decreased productivity from being unable to find a replacement. Until there is a federal paid family leave program in place, many firms will continue to be reluctant to offer paid family benefits to their employees.

[8]For additional details see: https://www2.deloitte.com/content/dam/Deloitte/us/Documents/about-deloitte/us-about-deloitte-paternal-leave-survey.pdf

Naturally, with California being the first state to pass a PFL law, many states that have subsequently passed a PFL law have borrowed certain components from California's law while simultaneously excluding certain provisions. For example, the weekly benefit paid to those on leave and the duration of the paid leave available to employees differs among states. Figure 1 Panel A shows the maximum weekly benefit paid to employees and Panel B shows the total number job-protected leave weeks available to employees on leave in each state. The number of weeks available to someone on paid leave in 2022 ranges from 5 weeks in Rhode Island, 8 weeks in California and Washington DC, and 12 weeks in the remaining states. The maximum weekly benefit has more variation across states since it is often tied to the average weekly wage paid within the respective state. The maximum benefit ranges from $780 in Connecticut to $1,446 in Oregon.

2.2 Theoretical Motivation and Hypotheses

The way that firms react and reallocate resources following the passage of a state-level PFL law is not straightforward and how firms inevitably react will be affected by several factors. The first factor is whether employees find the paid family leave benefit to be valuable. Summers (1989) points out that if a benefit that is funded through an employee payroll tax is only offered through the workplace and it is not valued by employees, the benefit program will be inefficient. Many of the state-level PFL programs are funded through an employee tax and all laws require the person taking leave to be employed within the state. With the existing empirical evidence already documented in the literature, and the anecdotal survey evidence, the benefits offered by PFL laws will be efficient and will be of value to many employees.

Assuming that PFL laws are valued by employees, there is expected to be an increase in labor supply that will benefit firms located in the state with the effective PFL law (Gruber (1994)). An increase in the labor supply suggests that the cost of labor will be reduced. A reduction in the cost of labor, coupled with the benefits of attracting new employees to the firm suggests that establishments in a state that passes a PFL law will be more appealing for the firm to invest in going forward. Firms may also find it easier to hire employees in the

states with a PFL law due to the reduced labor market frictions.

The second factor that will influence how firms react is whether or not the state-level PFL law imposes excess costs on the firm. This factor is expected influence a firm's investment policy. Many of the state-level PFL programs are funded through an employee tax, so the direct costs to the firm of paying for the paid family leave benefit will be alleviated.

There are many indirect costs to the firm that will need to be considered. As I discussed above, these include costs such as hiring additional or temporary workers to cover for the employee away on leave or lost productivity due to key human capital being on leave, among other things. Hiring additional employees to cover for an employee away on leave can be extremely costly. Blatter et al. (2012) finds that the marginal hiring costs, or the costs of searching for and training new employees, can be as high as 24 weeks of wage payments. Given the ex ante high cost of hiring additional employees, an increase in the labor supply following the passage of a PFL law is expected to reduce the cost of labor. Assuming that capital and labor are substitutes in production coupled with the fact that firms have limited capital to invest to begin with, firms may reduce their investment in capital expenditures and shift towards investing more in their labor force.

Taken together, the above arguments provide the motivation for my five main hypotheses.

Hypothesis 1: *PFL laws reduce labor market frictions and increase the number of individuals in the labor force within the state.*

Hypothesis 2: *Following the passage of a state-level PFL law, firms will shift employees to their establishments located in the treated state and away from their untreated establishments located in other states.*

Hypothesis 3: *Firms will increase the number of establishments owned in states with a PFL law in effect.*

Hypothesis 4: *Firms will increase the number of employees located in states with a PFL law in effect.*

Hypothesis 5: *Firms with operations that are located in a state with a PFL law will reduce investment in capital expenditures and increase investment in labor following the PFL law becoming effective.*

In addition to my main empirical tests examining the above hypotheses, I further exploit the cross-sectional variation of the level of financial constraint a firm experiences and the level of labor intensity at the firm in additional analyses.

3 Sample Selection and Methodology

3.1 Sample Selection

To complete the analysis of labor reallocation across establishments, I utilize granular establishment-level data from the Your-economy Time Series (YTS) database from the Business Dynamics Research Consortium (BDRC) at the University of Wisconsin. The YTS database is composed of annual snapshots from the Infogroup Historic Datafiles and provides establishment-year level information on location, industry, employment and sales for both public and private firms[9]. Each establishment within the YTS database is linked to a headquarters location, creating a network of establishments for each firm. This network of establishments is crucial for analyzing the effect of PFL laws on labor reallocation within a firm.

The YTS database allows for a granular analysis of how PFL laws will affect firms. An identification challenge that presents itself with this analysis is whether other local economic shocks are driving firms to invest in establishments located in the states with an enacted PFL law. I'm able to mitigate this identification concern by controlling for state-level economic variables as well as including a variety of fixed effects in each regression.

To be included in the sample I require the firm to be public and have accounting data available in the Compustat database and stock return data available in the CRSP database. After identifying all public firms in the YTS database I exclude firms with less than 100 em-

[9]For additional information on the validity of the YTS database and how the YTS database is constructed see Kunkle (2018)

ployees[10] and firms that are missing Compustat data on total assets, total sales, or book equity. Since I am interested in labor reallocation across establishments in different states, I require each firm in the sample to have an establishment in at least two states in a given year. This sample criteria results in 13,107,487 establishment-year observations covering 1,668,765 unique establishments and 53,684 firm-year observations covering 5,133 unique firms.

3.1.1 Variable Construction

The main variables used in my establishment-level labor reallocation tests come from the YTS database. For each establishment the total number of employees at the establishment and the establishment's location are collected. The main dependent variable in the establishment-level regressions discussed below is the natural log of the number of employees at the establishment, *Emp*. Based on the state that the establishment is located within I create the main independent variables of interest, *Treated Est* and *OtherFirmEst*. *Treated Est* is an indicator variable equal to one if the establishment is located in a state that has an enacted PFL law and zero otherwise. Once I have created the *Treated Est* variable, I can determine which firms have at least one treated establishment in a given year. The *OtherFirmEst* variable is then created as an indicator variable equal to one if the establishment itself is not in a state with an enacted PFL law but the firm has at least one establishment that is in a treated state and zero otherwise.

Using the YTS database I also construct several firm-level variables that are used as control variables in the establishment-level regressions. The first variable is *Main Business*, which is an indicator variable equal to one if the establishment is part of one of the firm's main businesses and zero otherwise. A main business is defined by a four-digit NAICS code industry that accounts for at least 25% of the firms employment based on the employees at each establishment in the YTS database. To control for the establishment's location relative to the firm's headquarters location I create an indicator variable, *HQ State*, equal to one if the establishment is located in the same state as the firm's headquarters. I also include several

[10] Results are robust to excluding the filter on the number of employees reported in Compustat.

firm-level variables from Compustat, including *Size*, *CashFlow*, *Fixed Assets*, *Leverage*, and *Profitability*. In addition to the firm-level variables I also collect state-level GDP data from the Bureau of Economic Analysis (BEA), and the county-level unemployment data from the Bureau of Labor Statistics (BLS) for each establishment.

The YTS database is the underlying source of the main dependent variables, *#State Emp* and *#State Loc*, in the extensive margin regressions as well. *#State Emp* is the total number of employees at establishments located within a given state in a given year. *#State Loc* is the total number of locations located within a given state in a given year. The main independent variable is *Treated State*, which is an indicator variable equal to one if a state has an enacted PFL law and zero otherwise. In addition to controlling for the state GDP, log(*State GDP*), and whether or not the state is the headquarters state, *HQ State*, I also collect the State Coincident Index provided The Federal Reserve Bank of Philadelphia to control for local employment conditions within the state. Additionally, I control for the same firm-level variables from Compustat discussed above in the intensive margin regressions.

In my firm-level analysis I rely on both the YTS database and Compustat. The main dependent variables include *Investment Rate* and *Ind Adj Emp*. *Investment Rate* is calculated as the firm's capital expenditures less sales of property, plant and equipment in year *t* divided by the average net property, plant and equipment in years *t* and *t-1* from Compustat. *Ind Adj Emp* is the total number of employees in year *t* less the 4-digit NAICS code industry median employees in year *t* from Compustat. The main independent variable of interest is *Treated PFL*. *Treated PFL* is an indicator variable equal to one in the first year, and all subsequent years, following the firm having at least one establishment in the YTS database located within a state that has an enacted PFL law and zero otherwise. For the firm-level regressions I follow the investment literature and control for *M/B Assets*, *CashFlow*, *Size*, *Cash*, *Leverage*, *Profitability*, and *Sales Growth*. Each of the control variables is defined in Appendix A.

3.2 Methodology

3.2.1 Establishment-Level Specification

The passage of the state-level PFL laws are staggered, which allows me to implement a generalized difference-in-difference approach. This is also know as a two-way fixed effects (TWFE) estimator. Using staggered exogenous shocks, such as the passage of a state-level PFL law, is more appealing than using a single exogenous shock (Roberts and Whited, 2013). However, recently there has been pushback on using a standard TWFE estimator. The argument against using a standard TWFE estimator is that there is likely to be a bias in the estimation when there are heterogeneous treatments across groups and time periods (Sun and Abraham (2021); Callaway and Sant'Anna (2021); De Chaisemartin and D'Haultfoeuille (2022); Baker et al. (2022)). With the potential issues of the standard TWFE estimator, I employ a *Stacked* Difference-in-Difference (DiD) approach following Cengiz et al. (2019) and Pant et al. (2022). Similar to Pant et al. (2022), the *Stacked* DiD approach is superior to other approaches suggested in the literature for my setting due to the establishment-level sample being an unbalanced panel. Along with the *Stacked* DiD I also estimate a TWFE estimator on the full establishment-year sample for comparison in my baseline regressions.

The goal of using a *Stacked* DiD approach is to compare treated observations to control observations from the same time period that are either never treated during the full sample period, or not yet treated in the time period being analyzed. To create the *Stacked* DiD sample I first create cohorts composed of a panel of all establishment-year observations from year t-4 to year t+4 relative to a PFL law becoming effective. Due to the YTS data being from 1997 through 2019 and requiring data to be available from year t-4 through year t+4, I'm only able to create cohorts for the passage of a PFL law in California, New Jersey, and Rhode Island. This is the result of many PFL laws taking effect in recent years. The treated establishments are those located within the state that has a PFL law enacted in year t. I remove establishments from each cohort when the first year of treatment for the firm is before year t in the respective cohort. For example, New Jersey's PFL law became enacted in 2008, six years after California's PFL became enacted. If an establishment is owned by a firm that was first treated following California's law being enacted in 2002, the establishment is dropped

from the New Jersey cohort. I apply a similar filter to the Rhode Island cohort. This sample setup allows for the comparison of treated establishments, other firm establishments, and control establishments from the same time period. The final result of this process is an establishment-year-cohort sample of 4,862,309 observations.

My main establishment-level analysis aims to capture how firms reallocate employees across establishments following the passage of a PFL law. To capture this I follow the methodology and identification strategy of Giroud and Mueller (2015) and estimate the following specification:

$$\begin{aligned} ln(Emp_{ijcst}) = \alpha_{ic} + \alpha_{ktc} + \alpha_{sc} + \beta_1 \times TreatedEst_{ijcst} \\ + \beta_2 \times OtherFirmEst_{ijcst} + \gamma' \mathbb{X}_{ijcst} + \epsilon_{ijcst} \end{aligned} \tag{1}$$

where EMP_{ijcst} represents the number of employees at establishment i of firm j in cohort c located in state s in year t. α_{ic}, α_{ktc}, and α_{sc} are establishment-cohort, industy-year-cohort, and state-cohort fixed effects, respectively. Industry is at the 4-digit NAICS code level and is defined at the establishment level. *Treated Est* is an indicator variable equal to one if the establishment is located in a state that has an enacted PFL law and zero otherwise. *OtherFirmEst* is an indicator variable equal to one if the establishment itself is not in a state with an enacted PFL law but the firm has at least one establishment that is in a treated state and zero otherwise. $\mathbb{X}$ is a vector of control variables including *State GDP, Unemp Rate, Main Business, HQ State, Size, CashFlow, Fixed Assets, Leverage*, and *Profitability*. Standard errors are clustered at the state level and all variables are defined in Appendix A.

Panel A of Table 2 presents the summary statistics for the *Stacked* DiD establishment-year sample. The average (median) establishment in the full sample has approximately 28 (9) employees. Approximately 5.5% of the observations are treated at some point during the sample period and approximately 44.4% of the observations are not treated themselves but instead are part of a firm that has at least one treated establishment in the given year.

3.2.2 Extensive Margin Specification

The establishment-year regressions discussed in the previous section shed light on how firms reallocate employees across establishments in response to a state-level PFL law being enacted. I next analyze the extensive margin and examine whether or not the passage of a state-level PFL also effects the number of employees and the number of locations that a firm has within a given state. It has been shown in the literature that labor costs play a significant role in where a firm locates operations (Bartik, 1991). If the passage of a state-level PFL law decreases the cost of labor in the state, it is expected that firms increase their physical presence in the given state and also increase the total number of employees in that state. To test this prediction I also implement a *Stacked* DiD approach. I create a cohort-firm-state-year level panel that includes the states that have a PFL law enacted in year t and their bordering states for years $t-4$ through $t+4$ around the PFL law taking effect. Formally, I estimate the following specification:

$$y_{jstc} = \alpha_{tc} + \alpha_{jsc} + \beta_1 \times TreatedState_{jstc} + \gamma^{'} \mathbb{X}_{jstc} + \epsilon_{jstc} \tag{2}$$

where y_{jst} is either the total number of employees in the respective state, *#State Emp*, or the total number of locations owned by firm *j* in state *s* in year *t*, *#State Loc.* *Treated State* is the main variable of interest and is an indicator variable equal to one if the state has an enacted Paid Family Leave (PFL) law and zero otherwise. $\mathbb{X}$ is a vector of control variables including *State GDP*, *StateCoinIndex*, *HQ State*, *Size*, *CashFlow*, *Fixed Assets*, *Leverage*, and *Profitability*. Standard errors are clustered at the state-firm level and all variables are defined in Appendix A. Panel B of Table 2 presents the summary statistics for the extensive margin cohort-firm-state-year sample. On average a firm has around four locations and 117 employees located within a state in a given year.

3.2.3 Firm-Level Specification

In my final analysis I examine the aggregate effects of state-level PFL laws on firm-level investment and the firm's overall labor force. My baseline firm-level regressions implement a TWFE regression with the following specification:

$$y_{jt} = \alpha_j + \alpha_t + \beta_1 \times TreatedPFL_{jt} + \gamma' \mathbb{X}_{j,t-1} + \epsilon_{jt} \quad (3)$$

where the dependent variable y_{jt}, represents either investment in capital expenditures, fixed assets, or the number of employees of firm j in year t. I calculate investment in capital expenditures, *Investment Rate*, as the firm's capital expenditures (capx) in year t less the sale of property, plant, and equipment (sppe) in year t scaled by the average net property, plant, and equipment (ppent) in years t and t-1. To proxy for aggregate firm-level labor force investment, I calculate *Ind Adj Emp* as the total number of employees (emp) in year t less the 4-digit NAICS code industry median employees in year t from Compustat. *Treated PFL* is an indicator variable equal to one in the first year, and all subsequent years, following the firm having at least one establishment in the YTS database located within a state that has an enacted PFL law and zero otherwise. Following the investment literature, $\mathbb{X}$ is a vector of firm control variables lagged one year including *M/B Assets*, *CashFlow*, *Size*, *Cash*, *Leverage*, *Profitability*, and *Sales Growth*. Standard errors are clustered at the firm level. All variables are defined in Appendix A. Panel C of Table 2 presents the summary statistics for the firm-year sample.

4 Results

4.1 PFL Laws and the Local Labor Market

Labor market outcomes are a key consideration for policymakers in the decision to pass a PFL law. State policymakers want to increase the local economic activity and attract businesses to invest in their state. When designing the PFL programs the goal is to provide a paid family leave benefit that allows individuals to either remain in or join the labor force. If the PFL programs are successful in this endeavor, the total number of employees in the state will increase, giving firms a larger pool of potential employees. This is the prediction of Hypothesis 1.

I use the County Business Patterns (CBP) data provided by Eckert et al. (2020) and calcu-

late the percent change in the number of employees[11] in each county to examine the local labor market effects around the passage of a PFL law[12]. In the spirit of Holmes (1998), I use the CBP data to create a county-year panel to examine the labor market outcomes for treated states compared to the neighboring control states. The treated group includes all counties on the border of the states that pass a PFL law and the control group includes all counties on the border of the neighboring states. The sample includes 2,178 county-year observations from 1998 to 2017.

To alleviate concerns of using a TWFE estimator discussed above, I implement the Callaway and Sant'Anna (2021) estimator. Figure 2 presents the results of this analysis. Consistent with the passage of a PFL reducing labor market frictions, there is a significant increase in county-level employment within the treated states following the passage of a PFL law. The increase is sizeable as well, with an average treatment effect of 4.4% in the year after a PFL law is enacted. The coefficients in the period prior to the treatment are all insignificant and close to zero, which meets the requirements of the parallel trends assumption. This result supports the notion that PFL laws increase the size of the labor force within the state.

4.2 Establishment-level Intensive Margin Analysis

4.2.1 Establishment Baseline Regressions

After establishing that local labor market frictions are reduced in the state following the passage of a PFL law in the previous section, I estimate my baseline establishment-year regressions to analyze how firms reallocate employees across establishments following the passage of a state-level PFL law. This is a direct test of my second hypothesis that firms increase the number of employees at their establishments in the treated states and reduce the number of employees at their establishments in other non-treated states. I implement the *Stacked* DiD sample and equation (1) from above to examine if this is the case. The dependent variable in each specification is the natural log of the number of employees located at an establishment. The coefficient on *Treated Est* should be positive and significant while the

[11] The percent change in the number of employees in each county is calculated as the number of employees in the county in year *t* divided by the number of employees in the county in year *t-1* minus one.

[12] The data is downloaded from the Eckert et al. (2020) data repository at `http://fpeckert.me/cbp/`.

coefficient on *OtherFirmEst* should be negative and significant if firms optimally reallocate labor following the passage of a PFL law.

Table 3 presents the results of this test. In columns (1) and (2) I include only the indicator for whether an establishment is treated, *Treated Est*. Columns (3) and (4) only include the indicator for whether an establishment is one of the firm's other establishments located in a non-treated state, *OtherFirmEst*. Columns (5) and (6) present the full model with both indicator variables to examine the reallocation of employees across establishments. Across all the specifications the coefficient on the *Treated Est* indicator is positive and statistically significant and the coefficient on the *OtherFirmEst* indicator is negative and statistically significant, supporting Hypothesis 2.

These results suggest that treated firms shift their labor force to their establishments in treated states and away from those in other untreated states. Therefore, firms benefit from an internal labor market through the ability to adjust their labor force across establishments located in different states. In the next section, I address endogeneity concerns related to the parallel trends assumption when using a difference-in-difference model.

4.2.2 Establishment Dynamic Regressions

The results presented in Table 3 provide support for Hypothesis 2, yet, endogeneity concerns exist. To alleviate endogeneity concerns, I use the *Stacked DiD* sample and implement a dynamic regression model to control for pre-existing trends in the dependent variable. To provide causal interpretation, a difference-in-difference model needs to satisfy the parallel trends assumption. By estimating a dynamic regression, I check whether this assumption holds. In each regression the dependent variable is the natural log of the number of employees at an establishment and both the *Treated Est* variable and the *OtherFirmEst* variable are interacted with an indicator variable for the time relative to the PFL law being enacted in the state.

The results are reported in Table 4. I find all the coefficients in the pre-treatment period to be statistically insignificant for both the interactions with the *Treated Est* variable and the *OtherFirmEst* variable. The significant coefficients for the treated establishments occur in

the first and second year after the passage of the PFL law and The significant coefficients for the firm's other establishments occur three years after the passage of the PFL law. This suggests that the parallel trends assumption of a difference-in-difference model holds and the estimates are valid.

4.2.3 Establishment Cross-sectional Heterogeneity

The passage of a PFL law may elicit different reactions from firms. In this section, I examine how firm's characteristics, such as firm-level financial constraints and labor intensity, moderate firm's labor reallocation decisions. I implement the Stacked DiD regression for subsamples based on these firm-level characteristics in Table 5.

The expected reaction from a financially constrained firm compared to a non-financially constrained firm are expected to diverge. Assuming that PFL laws reduce the cost of labor in the treated state, it is expected that a financially constrained firm would benefit more than a firm that is not financially constrained. Prior to a reduction in the cost of labor, financially constrained firms may operate with a suboptimal number of employees due to the high cost of labor. If this is the case, it is expected that finanically constrained firms will reallocate labor to the establishments in the treated states and away from their establishments in other untreated states.

Non-financially constrained firms may not need to reallocate or cut employment at all. However, when they look to decrease the size of their labor force it is expected that they do so at establishments where labor is relatively more expensive. This suggests that non-financially constrained firms will decrease the number of employees at their establishments located within the untreated states.

Panel A in Table 5 present the results for the interactions based on firm's financial constraints. I use Size-Age Index from Hadlock and Pierce (2010) to split firms into financially constraint and non-financially constraint subsamples[13]. Firms with a Size-Age Index value above the median for year *t-1* enter a financially constrained subsample. Column (3) presents the full model with all the interaction terms included. The results align with my prediction.

[13] Results are qualitatively similar when using the Whited-Wu Index of financial constraint from Whited and Wu (2006).

The reallocation of employees occurs for financially constrained firms while non-financially constrained only cut employees at their other establishments where labor is relatively more expensive.

My final cross-sectional test examines how firm's investment focus may influence their reaction to a passage of a PFL law. Specifically, I hypothesize that the systematic differences between labor-intensive and capital-intensive firms determine how they react to a passage of a PFL law. PFL laws create a shock to labor-intensive firms' most valuable asset—-their employees. Labor-intensive firms rely more on labor force, hence, they should experience a greater shock following a change to local labor laws than capital-intensive firms. Because labor-intensive firms rely heavily on employees in their production function, they will benefit more from reallocating employees to establishments in the treated states. In contrast to labor-intensive firms, capital-intensive firms rely less on labor in the production function and, hence, a change to their labor allocation following a shock to local labor laws is unnecessary. At most, I would expect that capital-intensive firms may decrease the number of employees at the their untreated establishments, when such decrease is necessary for cost-cutting.

Panel B of Table 5 present results for the analysis using interactions based on the firm's labor intensity. Labor intensity is calculated as total number of employees in year *t-1* divided by the total net property, plant, and equipment (Compustat item ppent) in year *t-1*. Labor-intense firms have a labor intensity value above the median for year *t-1*, all other firms are considered capital-intensive. Again, column (3) presents the full model with all the interaction terms included. Labor-intense firms tend to reallocate their employees to their establishments in the treated and away from their establishments in untreated states following a passage of a PFL law. The result is consistent with employees being an important component in a labor-intensive firms production function and firms optimal locating labor where it is relatively cheaper. For capital intensive firms, there is no significant effect to the establishments in the treated states while there is a decrease at the firm's establishments in other states. Capital intensive firms only cutting labor at their establishments in the untreated states highlights the fact that labor is of lower importance in the firm's production

function.

Overall, the results presented in this section highlight the various responses different types of firms may have to a shock to local labor markets. I continue to exploit the various cross-sectional differences in each other model discussed below.

4.3 Extensive Margin Analysis

In this section I present my empirical results testing Hypothesis 2 and Hypothesis 3. I implement equation (2) to examine if PFL laws attract firms to the state. Specifically, I explore whether or not firms increase the total number of employees and the total number of locations within a state in response to a PFL law becoming effective.

The results presented in the previous section provide support for the argument that labor in the treated states is cheaper and incentivizes firms to invest in the treated state. If PFL laws truly make it more appealing for firms to invest in the treated state, along with shifting their labor force, I would also expect firms to increase their physical presence in the state. I implement equation (2) from above to test my third and fourth hypotheses and analyze how the total number of employees and the total number of locations a firm has within a treated state changes compared to the bordering states following the passage of a state-level PFL law. The sample used in this analysis is at the cohort-firm-state-year level inspired by the methodology in Giroud and Rauh (2019). Further, the sample only includes states that have a PFL law enacted and the states that border the treated states for years $t-4$ through $t+4$ around the PFL law being passed in year t.

Table 6 presents the results of this analysis for the full sample of firm-state-years meeting the previous criteria. Columns (1) and (2) present the results for the total number of employees in the state and and columns (3) and (4) present the results for the total number of locations within the state. *Treated State* is the main variable of interest in columns (1) and (3). *Treated State* is an indicator variable equal to one if the state has an enacted PFL law and zero otherwise. Each regression includes cohort-state-firm and cohort-year fixed effects to control for unobserved heterogeneity.

The results presented in columns (1) and (3) of Table 6 provide support for Hypothesis

2 and Hypothesis 3, respectively. However, similar to the intensive margin analysis above, there may still be concerns with endogeneity in the model. Therefore, I also implement a dynamic regression model for the extensive margin sample to ensure there aren't any pre-existing trends. Columns (2) and (4) present the results of the dynamic regressions for the total number of employees in the state and the total number of locations within the state, respectively.

I first focus on the number of employees located within a given state. The coefficient on *Treated State* in column (1) is significant at the 5% level and suggests that following the passage of a PFL law, firms add 5.831 more employees in the treated state compared to the neighboring border states. With the average number of employees located within a given state being 117.103, this corresponds to a 4.9% increase in the number of employees within the treated states.

Turning next to the result for the number of locations owned by a firm within a given state presented in column (3). The coefficient on *Treated State* suggests that firms add 0.387 establishments in the treated states following the passage of a PFL law. This result is statistically significant at the 1% level. With the average number of establishments located in a given state being 4.101, this corresponds to a 9.9% increase in the number of establishments located in the treated states.

The results of the dynamic models in columns (2) and (4) are consistent with the baseline results and the coefficients on the interactions in the pre-treatment period are all statistically insignificant. Therefore, the existence of pre-existing trends can be ruled out, satisfying the parallel trends assumption of a difference-in-difference model. Taken together, these results point towards the passage of a PFL law attracting business activity to the state.

4.3.1 Extensive Margin Cross-sectional Heterogeneity

In the previous section I showed that financially constrained firms are more likely to reallocate employees to their establishments located in the treated states and away from their establishments in the untreated states. This suggests that the cost of labor is higher in states without a PFL law. Therefore, financially constrained firms may actually look to

expand in the states with a PFL law. Non-financially constrained have more flexibility when it comes to where they locate employees and operations since their access to capital isn't as limited. Therefore, it wouldn't be surprising to find no effect for the firms that are not financially constrained.

Table 7 Panel A present the results of this subsample analysis. In columns (1) and (2) the dependent variable is *#State Emp* and in columns (3) and (4) the dependent variable is *#State Loc*. The results for financially constrained firms reported in columns (1) and (3) show that there is a statistically significant increase in both the number of employees and the number of locations within the treated states following the passage of a PFL law, respectively. For the non-financially constrained firms reported in columns (2) and (4), there is no significant effect on the number of employees in the state but there is a statistically significant increase in the number of locations within the treated states following the passage of a PFL law. These results are consistent with my predictions above.

Following the labor reallocation tests, the last cross-sectional analysis I complete explores whether or not there are any differences between labor intensive firms and capital intensive firms. Firms should seek to set up operations in a location where the inputs needed for production are the cheapest, holding everything else constant. Therefore, it would be expected that labor intensive firms are attracted to a state with a lower cost of labor. As discussed above, for capital intensive firms, labor isn't as important so a shock to local labor markets may not provide the firm any incentive to increase operations in the treated state. Based on these arguments I expect the increase in the number of employees and the number of firm establishments located within the treated states to be driven by the labor intensive firms.

The results in Panel B are consistent with this prediction. There is a positive and statistically significant increase in the number of employees and the number of establishments owned by labor intensive firms in the treated states following a PFL law taking effect reported in columns (1) and (3), respectively. Consistent with labor being less important in the firm's production function, there is no significant effect on the number of employees within the treated state for capital intensive firms reported in column (2). For capital intensive firms

there is a marginally significant increase in the number of establishments located within the treated states following the passage of a PFL law reported in column (4).

Overall, the results of the extensive margin analysis of the effect that PFL laws have on the number of employees and the number of locations owned within the state are consistent with the local labor market and intensive margin results presented in the previous sections. Everything points towards PFL laws increasing the appeal of investing in the treated state.

4.4 Firm-Level Results

In this section I present my empirical results testing Hypothesis 5. To examine how firm-level investment policies change in response to a state-level PFL law I implement equation (3) above. Specifically, I examine the changes to firm-level investment in capital expenditures, fixed assets, and investment in the total firm labor force.

In the establishment-level tests above, the results provide evidence of firms investing more in the treated states. In light of this evidence, it's natural to wonder what happens to the investment policies at the aggregate level following exposure to a PFL law. Does investment in capital expenditures and labor increase simultaneously or is there a substitution effect? I shed light on this question with the firm-level analysis presented in this section.

The results of the baseline firm-level regressions testing Hypothesis 5 on firm investment policies are presented in Table 8. Each test implements the TWFE model outlined in equation (3) above on the full firm-level sample. Columns (1) and (2) present the results of firm investment in capital expenditures where the dependent variable is *Investment Rate* which is calculated as the firm's capital expenditures (capx) in year t less the sale of property, plant, and equipment (sppe) in year t scaled by the average net property, plant, and equipment (ppent) in years t and t-1. Firm investment in labor is analyzed in columns (3) and (4) of Table 8 where the dependent variable is *Ind Adj Emp*. *Ind Adj Emp* is calculated as the total number of employees at the firm in year t less the 4-digit NAICS code industry median number of employees at a firm in year t from Compustat. Each regression includes the firm's previous year *M/B Assets*, *CashFlow*, *Size*, *Cash*, *Leverage*, *Profitability*, and *Sales Growth* as control variables, as well as firm and year fixed effects.

The prediction of Hypothesis 5 is that firms decrease investment in capital expenditures and increase investment in labor. This hypothesis supports the assumption that capital and labor are substitutes and when one input becomes relatively cheaper, firms shift to investing more in that input. In the setting of PFL laws, that translates into lower investment in physical capital and higher investment in labor. The results presented in columns (1) and (2) of Table 8 show a decrease in investment in capital expenditures. The coefficient on *Treated PFL* is negative and statistically significant, providing evidence that firms decrease investment in capital expenditures following exposure to a PFL law. When examining firm investment in labor reported in columns (3), I find a marginal increase in investment in labor following exposure to a PFL law. However, after controlling for the various firm characteristics in columns (4) the result is no longer statistically significant. This suggests that the firm's total labor force is relatively unchanged following the passage of a PFL law. Taken together with the establishment-level results above, this supports the reallocation of labor across establishments, rather than just an overall increase in the firm's total labor force.

As I discussed above, recently there has been pushback on using a standard TWFE regression as the coefficient estimates may be biased due to heterogeneous treatments across groups and time. To alleviate the concerns of the TWFE regression presented in Table 8 producing biased coefficients, I also implement the estimator developed by Callaway and Sant'Anna (2021). I present the results of using this method in Figure 3. Panel A of Figure 3 presents the result for investment in capital expenditures. In the periods prior to the firm being exposed to a state-level PFL law, there is no significant effect on the firm-level investment rate. In the post-treatment period following exposure to a PFL law, there is a negative and significant effect on firm investment in capital expenditures.

Panel B of Figure 3 presents the results for firm-level investment in labor, Ind Adj Emp. Again, there is no significant effect on firm investment in labor in the period prior to the firm being exposed to a PFL law. In contrast to the estimates from the TWFE estimates in Table 8, the average treatment effect in the post period is positive and significant. This suggests that there is a statistically significant increase in investment in the firm's labor force. The results using the Callaway and Sant'Anna (2021) estimator are in line with the results presented in

Table 8 and support the prediction of Hypothesis 5.

With a decrease in the level of investment in capital expenditures, and a shift towards investing more in their labor force, I consider two potential explanations for this increase in investment in labor. This result is most likely due to a lower cost labor where they have operations. Bennett et al. (2020) find that firms experience greater operating performance and increased productivity following the passage of a state-level PFL. With this result in mind, it is likely firms increase investment in labor due to the cost of labor decreasing where they have operations. This explanation is also in line with the results I find in the establishment-level regressions above.

Overall, the results presented in this section show that firms adjust investment policies in response to exposure to a state-level PFL law. Similar to the establishment-level analysis above, in the next section I explore the cross-sectional heterogeneity across firms. Specifically, I complete a subsample analysis for financially constrained versus non-financially constrained firms, and labor intensive versus capital intensive firms.

4.4.1 Firm-level Cross-sectional Heterogeneity

As with the establishment-level tests presented above, the changes to investment policy may not be homogeneous across all firms. In this section I exploit the cross-sectional heterogeneity among firms and complete the firm-level analysis for subsamples based on the firm's level of financial constraint and the firm's level of labor intensity. The results of these tests are presented in Table 9. The subsamples are determined using the same procedure discussed above in Section 4.2.3.

I begin with a discussion on the results for the financially constrained firms vs the non-financially constrained firms presented in Panel A of Table 9. Similar to the intensive margin and extensive margin results that examine the role that financial constraints play in a firm's investment decisions above, I expect the changes to investment policy at the firm level to differ at the firm-level as well. A reduction in the cost of labor is expected to benefit financially constrained firms more than non-financially constrained firms.

Column (1) in Table 9 shows that exposure to a state-level PFL law has no effect on in-

vestment in capital expenditures for financially constrained firms, while column (2) shows that there is a statistically significant decrease in investment in capital expenditures for non-financially constrained firms. In columns (3) and (4) of Panel A, exposure to a state-level PFL law appears to have no effect on investment in labor for both financially constrained and non-financially constrained firms. Both coefficients are statistically insignificant, positive, and of similar magnitude to the baseline result in Table 8.

Next I discuss the results for the subsamples based on the firm's labor intensity presented in Panel B of Table 9. In columns (1) and (2) we see a statistically significant reduction in investment in capital expenditures for both labor intensive and capital intensive firms, respectively. The decrease is of similar magnitude for both subsamples which suggests that both labor intensive and capital intensive firms cut investment in capital expenditures following the passage of a PFL law. Turning to columns (3) and (4) of Panel B, exposure to a state-level PFL law appears to have no effect on investment in labor for labor intensive firms while the capital intensive firms appear to increase their investment in labor. This result is only marginally significant at the 10% level.

Capital intensive firms see a statistically significant decrease in investment in capital expenditures while labor intensive firms experience no significant effects. Given that labor intensive firms rely more on labor in their production function, it would be expected that the changes to investment in capital expenditures would be driven by these firms. Since this is not the case, a substitution explanation between investment in capital expenditures and labor is unlikely.

Collectively, the results presented in this section are consistent with the establishment-level intensive margin and extensive margin results. In the next section I address potential selection bias issues in the firm-level analysis by completing the baseline firm-level analysis using a entropy-balanced sample.

4.4.2 Entropy-balanced Sample

The firm-level results above are consistent with firms with operations affected by PFL laws adjusting investment policies. However, there still exists endogeneity concerns with

the firms that select to locate in the states that pass the PFL laws. To alleviate this selection bias issue, I redo the analysis from Table 8 using an entropy balanced matched sample.

Entropy balancing reweights the sample observations to ensure the treatment and control groups are from similar distributions (i.e. similar mean, variance, and skewness) (Hainmueller, 2012). The use of entropy balancing removes the need for a propensity model and ensures co-variate balance between the treatment and control observations (Heimer and Simsek, 2019). I match each treated observation to a group of control firms on a set of observable variables from the previous year including *M/B Assets*, *CashFlow*, *Size*, *Cash*, *Leverage*, *Profitability*, and *Sales Growth*.

Table 10 present the results of the entropy balanced sample. Results are consistent in both significance and magnitude with the baseline firm-level regressions in Table 8. Following the passage of a PFL law, firms with operations in the treated state reduce investment in capital expenditures and fixed assets at the same time as an increase investment in their labor force. This result helps to alleviate the concerns of selection bias between the treated and control firms.

5 Conclusion

To date, the United States is the only developed country without a federally funded paid parental leave program, passing the decision to local state legislators. While more and more states are passing state-level PFL laws, how these laws impact treated firms remains unclear. In this paper, I use the staggered adoption of state-level PFL laws in the United States as an exogenous shock to examine how firms reallocate labor across their establishments and adjust investment policies in response to a state-level PFL law. To complete my analysis, I first implement a Stacked DiD regression framework to analyze firms' reallocation of labor. Additionally, I provide a causal interpretation using dynamic regressions to show that the parallel trends assumption holds in the pre-treatment period in each specification.

Overall, my findings provide evidence that state-level labor laws can have a positive effect on local labor markets and the firms with operations within the state. Specifically, when

a PFL law is enacted, firms tend to invest more in their labor force in the treated state. Additionally, firms increase the number of locations in the treated states relative to the number of locations in the neighboring untreated states. At the firm-level, I find treated firms reduce investment in capital expenditures and increase investment in their labor force. These strategic shifts are most likely driven by a reduction in the cost of labor relative to the cost of physical capital following the passage of a PFL law.

As PFL laws continue to gain traction and the United States is moving towards a federally funded PFL program, this paper provides important policy implications. Firms tend to invest more in their labor force when a PFL law is enacted in the treated state, which may result in increased employment opportunities. Furthermore, the change in investment policy from capital expenditures to the firm's labor force indicates that PFL laws can shift a company's strategic priorities towards its employees. Overall, the results of this paper support the implementation of state-level PFL laws.

Appendix A: Variable Definitions

Variable	Definition
Establishment Level Variables:	
Treated Est	Indicator variable equal to one if establishment i is located in a state that has an enacted PFL law and zero otherwise.
OtherFirmEst	Indicator variable equal to one if establishment i is not located in a state that has an enacted PFL law and another establishment owned by the same firm is located in a state with an enacted PFL law and zero otherwise.
Treated State	Indicator variable equal to one if the state has an enacted PFL law and zero otherwise.
Emp	Total number of employees at establishment i in year t from the YTS database.
#State Emp	The total number of employees of firm j within state s in year t.
#State Loc	The total number of establishments owned by firm j within state s in year t.
State GDP	State Real GDP in 2012 millions of dollars from the Bureau of Economic Analysis.
StateCoinIndex	The State Coincident Index provided The Federal Reserve Bank of Philadelphia for the establishment's state in year $t-1$. The index is calculated using four state-level variables which include non-farm payroll employment, average hours worked in manufacturing by production workers, the unemployment rate, and wage and salary disbursements adjusted for inflation.
Unemp Rate	The establishment county's unemployment rate for year t from the Bureau of Labor Statistics (BLS).
Main Business	Indicator variable equal to one if the establishment is part of one of the firm's main businesses and zero otherwise. A main business is defined by a four-digit NAICS code industry that accounts for at least 25% of the firms employment based on the employees at each establishment in the YTS database.

(*continued*)

HQ State	Indicator variable equal to one if establishment *i* is located in the same state as the firm's headquarters and zero otherwise.
Firm Level Variables:	
Treated PFL	Indicator variable equal to one if the firm has at least one establishment in a state with an enacted PFL law and zero otherwise. Calculated using the establishment-level employment data from the YTS Database.
Investment Rate	Capital expenditures less sales of property, plant and equipment in year *t* divided by the average net property, plant and equipment in years *t* and *t-1* from Compustat.
Ind Adj Emp	The total number of employees in year *t* less the 4-digit NAICS code industry median employees in year *t* from Compustat.
Fixed Assets	The firm's property, plant, and equipment (ppent) in year *t* scaled by the total assets (at) in year *t-1* from Compustat.
Size	The natural log of total assets
Preferred Stock	The first non-missing value from the following: liquidating value of preferred stock, redemption value of preferred stock, or carrying value of preferred stock.
Market Value	Total liabilities less deferred taxes and investment tax credit plus preferred stock plus the market value of equity.
M/B Assets	*Market Value* divided by book value of total assets .
Leverage	The total book value of leverage divided by total assets.
Cash Flow	Total operating cash flow divided by total assets.
Cash	Cash and short term investments divided by total assets.
Profitability	Income before extraordinary items plus depreciation divided by total assets.
Sales Growth	Sales in year *t* divided by sales in year *t-1* minus one.

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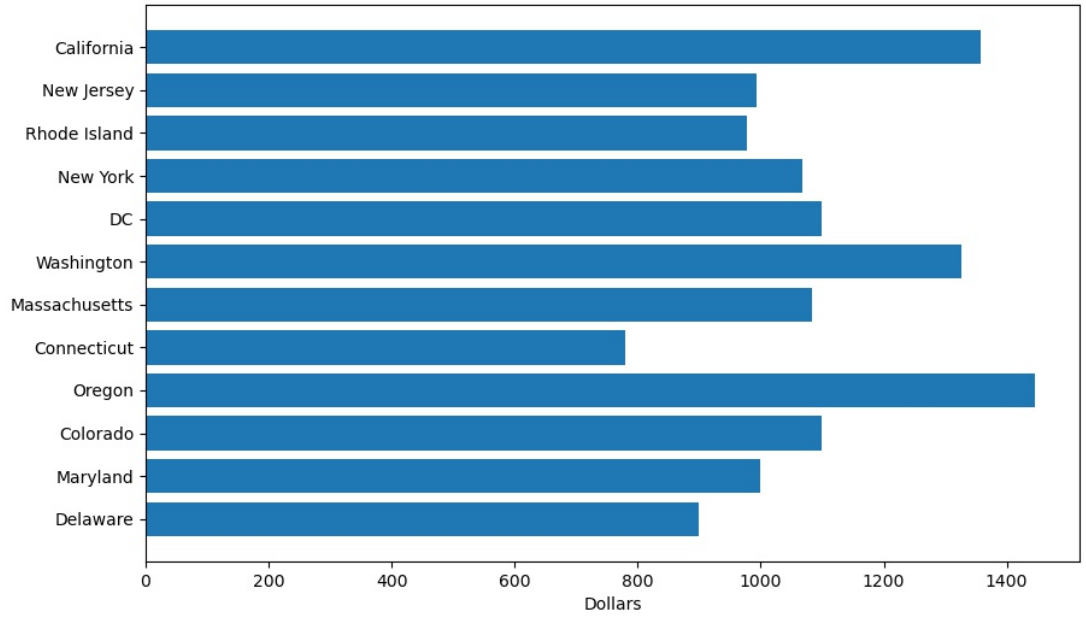
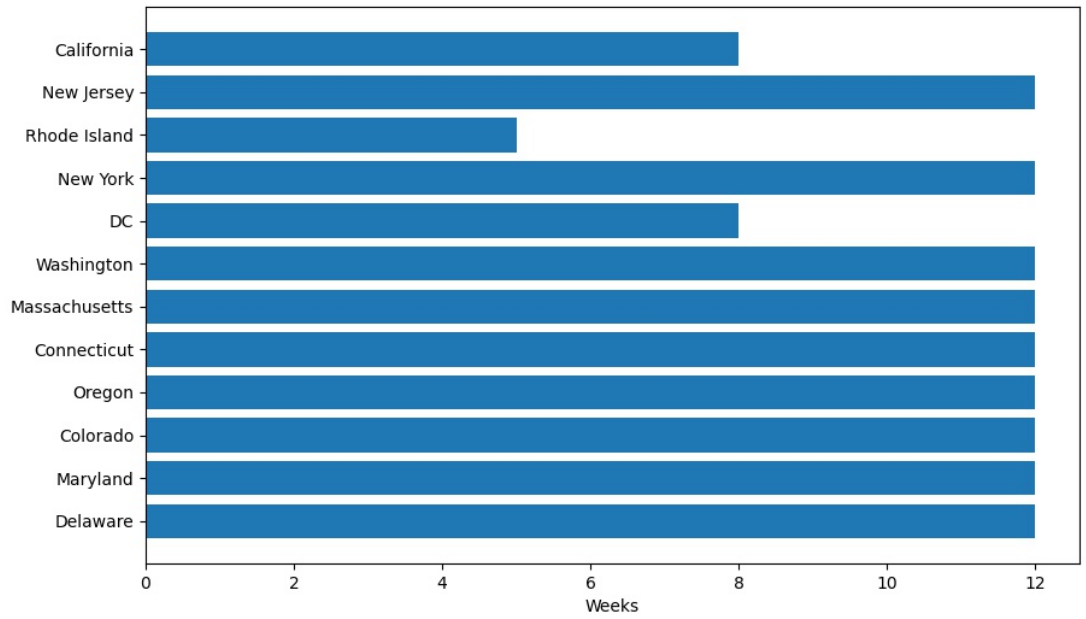
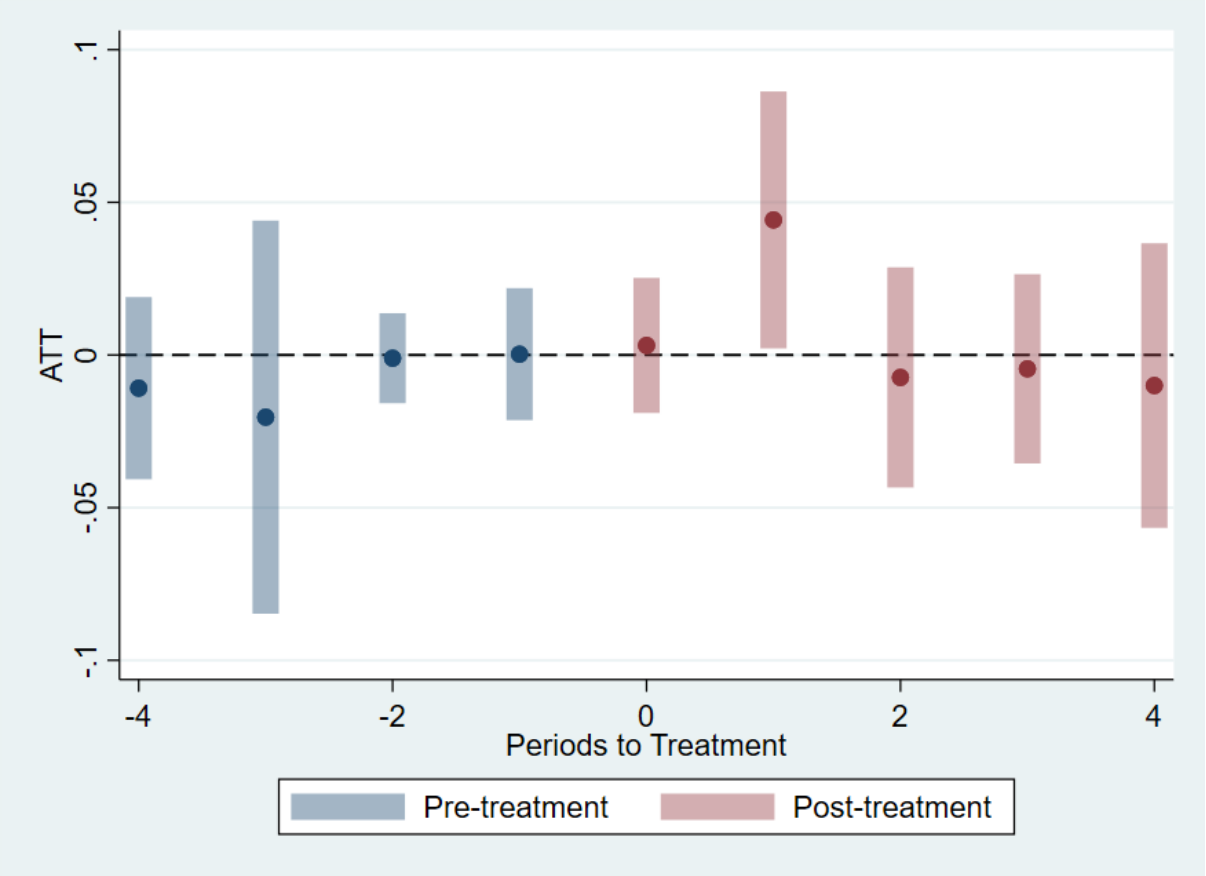


(a) Max Weekly Benefit (US Dollars)



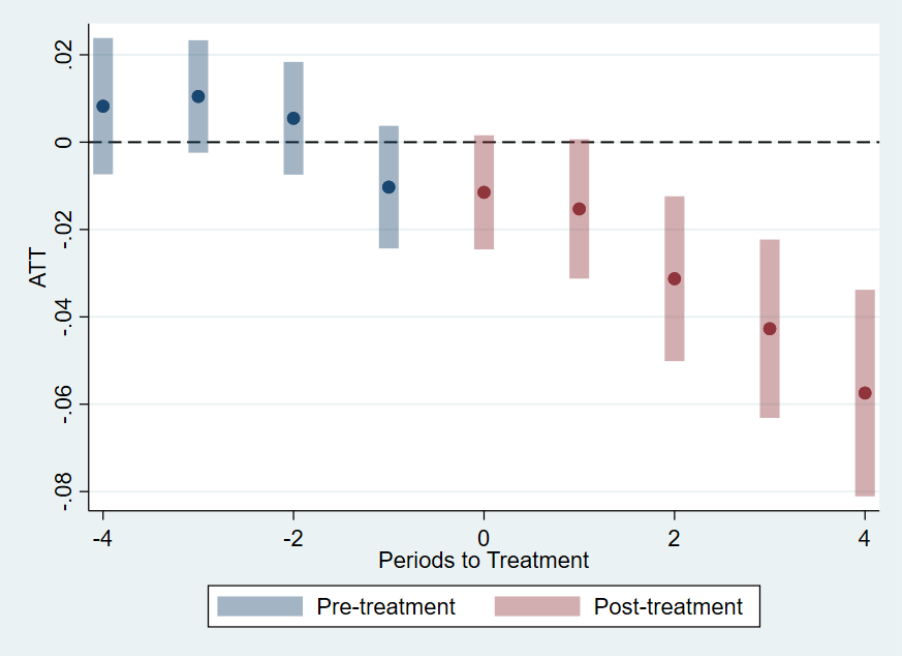
(b) Maximum Leave Duration (Weeks)

Figure 1: Paid Family Leave Program Benefit Characteristics. This figure presents the current maximum weekly benefit in Panel (a) and the maximum duration of leave available in Panel (b) under each state's PFL law as of 2022.

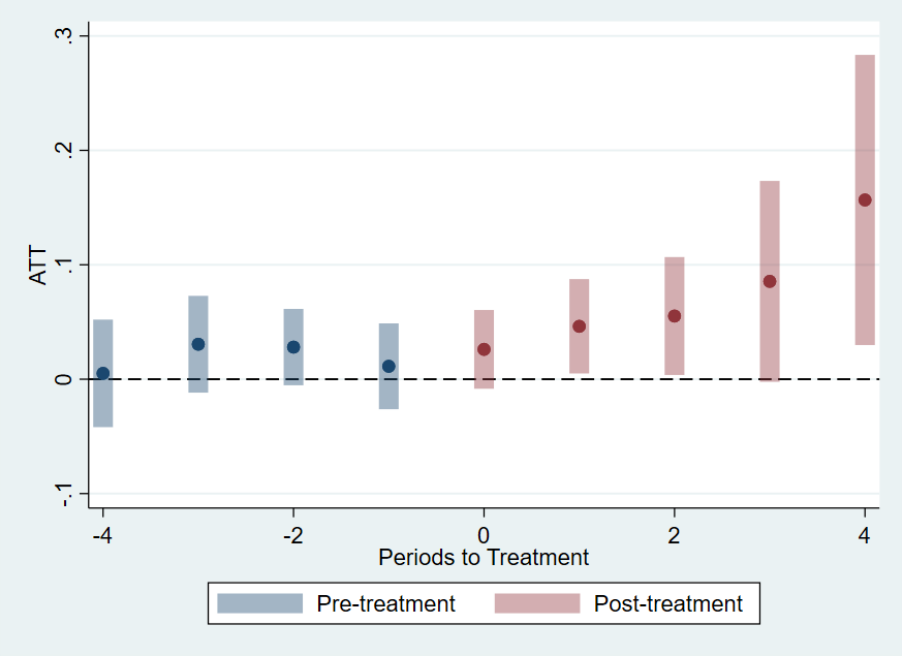


(a) Percent Change in County Employees

Figure 2: Border County Employment Changes Around PFL Law Passage. This figure plots the average treatment effect of Paid Family Leave (PFL) laws on the percent change in the number of employees in a county around the year of enactment of a PFL law. The County Business Patterns data used is downloaded from the Eckert et al. (2020) data repository. The estimates are computed using the Callaway and Sant'Anna (2021) estimator. Treated counties in the sample include counties on the state border within California, New Jersey, and Rhode Island. Control counties in the sample include the counties on the border in Oregon, Nevada, Arizona, Pennsylvania, New York, Delaware, Connecticut, and Massachusetts.



(a) Investment Rate



(b) Ind Adj Emp

Figure 3: Firm-level Dynamic Effect. This figure plots the average treatment effect of Paid Family Leave (PFL) laws on firm-level investment and employment around the passage of the laws. The estimates are computed using the Callaway and Sant'Anna (2021) estimator and plot the average treatment effect around the year the firm is first exposed to PFL legislation. Panel A presents the average treatment effect of PFL laws on *Investment Rate*. Panel B presents the average treatment effect of PFL laws on log(*Ind Adj Emp*). Each variable is defined in Appendix A.

Table 1: States with Paid Family Leave (PFL) Laws.
This table presents a list of the states that have passed legislation to implement a PFL program for employees within the state. The table includes the year the PFL law was enacted, the year when the PFL program becomes effective, and the funding source of the PFL program.

State	Year Enacted	Year Effective	Funding Source
California	2002	2004	Employees
New Jersey	2008	2009	Employees
Rhode Island	2013	2014	Employees
New York	2016	2018	Employees
Washington DC	2017	2020	Employers
Washington	2017	2020	Shared
Massachusetts	2018	2021	Employees
Connecticut	2019	2022	Employees
Oregon	2019	2023	Shared
Colorado	2020	2023	Shared
Maryland	2022	2025	Employees
Delaware	2022	2026	Shared

Table 2: Summary statistics.
This table presents the summary statistics for the key establishment-level variables and the key firm-level variables in the analysis. Panel A presents the establishment-year-cohort sample for the *Stacked* DiD analysis. Panel B presents the firm-state-year sample for the extensive margin tests. Panel C presents the full firm-year sample used in the firm-level analysis. All variables are defined in Appendix A and all continuous variables are winsorized at the 1st and 99th percentiles.

	Obs.	Mean	SD	Min	25%	Median	75%	Max
Panel A: Stacked DiD Establishment Sample								
Emp	4,862,309	28.555	60.854	1.000	5.000	9.000	23.000	400.000
Treated Est	4,862,309	0.055	0.227	0.000	0.000	0.000	0.000	1.000
OtherFirmEst	4,862,309	0.444	0.497	0.000	0.000	0.000	1.000	1.000
log(*State GDP*)	4,862,309	12.873	0.913	10.643	12.355	12.921	13.475	14.510
Unemp Rate	4,862,309	0.050	0.017	0.019	0.038	0.048	0.058	0.108
Main Business	4,862,309	0.749	0.433	0.000	0.000	1.000	1.000	1.000
HQ State	4,862,309	0.139	0.346	0.000	0.000	0.000	0.000	1.000
Size	4,862,309	8.471	2.017	2.289	7.048	8.350	9.959	11.900
Cash Flow	4,862,309	0.127	0.170	-0.524	0.050	0.122	0.224	0.581
Fixed Assets	4,862,309	0.314	0.242	0.001	0.083	0.282	0.511	0.885
Leverage	4,862,309	0.272	0.196	0.000	0.126	0.244	0.376	0.898
Profitability	4,862,309	0.090	0.075	-0.627	0.039	0.087	0.133	0.302
Panel B: Extensive Margin Sample								
# State Loc	242,663	4.101	15.165	0.000	0.000	0.000	1.000	114.000
# State Emp	242,663	117.103	396.321	0.000	0.000	0.000	20.000	2801.000
Treated State	242,663	0.148	0.355	0.000	0.000	0.000	0.000	1.000
log(*State GDP*)	242,663	12.549	1.100	10.820	11.728	12.406	13.300	14.510
StateCoinIndex	242,663	94.180	11.958	70.018	84.642	95.359	99.750	132.139
HQ State	242,663	0.038	0.191	0.000	0.000	0.000	0.000	1.000
Size	242,663	6.683	2.016	2.289	5.280	6.633	8.009	11.900
Cash Flow	242,663	0.053	0.192	-0.524	-0.047	0.064	0.160	0.581
Fixed Assets	242,663	0.239	0.232	0.001	0.052	0.160	0.357	0.885
Leverage	242,663	0.220	0.201	0.000	0.044	0.184	0.338	0.898
Profitability	242,663	0.053	0.127	-0.627	0.016	0.069	0.115	0.302
Panel C: Firm Sample								
Investment Rate	53,684	0.231	0.201	-0.062	0.098	0.178	0.306	1.054
Ind Adj Emp	53,684	9.759	1.113	0.000	9.673	9.727	9.903	11.936
Treated PFL	53,684	0.602	0.489	0.000	0.000	1.000	1.000	1.000
M/B Assets	53,684	1.791	1.263	0.629	1.045	1.345	2.015	8.077
Cash Flow	53,684	0.053	0.192	-0.524	-0.045	0.065	0.160	0.581
Size	53,684	6.761	2.042	2.289	5.335	6.724	8.124	11.900
Cash	53,684	0.147	0.171	0.001	0.026	0.077	0.207	0.755
Leverage	53,684	0.228	0.204	0.000	0.050	0.192	0.350	0.898
Profitability	53,684	0.052	0.128	-0.627	0.015	0.068	0.114	0.302
Sales Growth	53,684	0.098	0.265	-0.535	-0.025	0.064	0.172	1.433

Table 3: Baseline Establishment-level Regressions

This table presents the establishment-level employee regressions using a *Stacked* DiD sample at the establishment-year-cohort level. The dependent variable in each regression is the log of the total number of employees at the establishment. The coefficients of interest are *Treated Est* and *OtherFirmEst*. *Treated Est* is an indicator variable equal to one if the establishment is located in a state that has an enacted PFL law and zero otherwise. *OtherFirmEst* is an indicator variable equal to one if the establishment is not located in a state that has an enacted PFL law and another establishment owned by the same firm is located in a state with an enacted PFL law, and zero otherwise. All control variables are defined in Appendix A. Each regression includes establishment-cohort, industry (4-digit NAICS code)-year-cohort, and state-cohort fixed effects. I report t-statistics based on robust standard errors clustered at the state level in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Treated Est	0.015***	0.014***			0.006**	0.005*
	(9.24)	(8.63)			(2.22)	(1.82)
OtherFirmEst			-0.013***	-0.013***	-0.010***	-0.010***
			(-5.74)	(-6.93)	(-3.95)	(-4.53)
log(*State GDP*)		0.048*		0.052**		0.050*
		(1.95)		(2.15)		(1.99)
Unemp Rate		-0.047		-0.045		-0.044
		(-0.71)		(-0.68)		(-0.66)
Main Business		0.017***		0.017***		0.017***
		(12.33)		(12.57)		(12.61)
HQ State		0.032***		0.031***		0.032***
		(3.51)		(3.48)		(3.49)
Size		0.021***		0.022***		0.022***
		(21.72)		(21.80)		(21.80)
Cash Flow		0.024***		0.024***		0.024***
		(4.23)		(4.19)		(4.17)
Fixed Assets		0.045***		0.044***		0.044***
		(5.82)		(5.66)		(5.67)
Leverage		0.014**		0.014**		0.014**
		(2.58)		(2.51)		(2.52)
Profitability		0.006		0.005		0.005
		(1.00)		(0.83)		(0.88)
Observations	4,862,309	4,862,309	4,862,309	4,862,309	4,862,309	4,862,309
R-squared	0.957	0.957	0.957	0.957	0.957	0.957
Ind-Year-Cohort FE	Yes	Yes	Yes	Yes	Yes	Yes
Est-Cohort FE	Yes	Yes	Yes	Yes	Yes	Yes
State-Cohort FE	Yes	Yes	Yes	Yes	Yes	Yes

Table 4: Stacked DiD Establishment-level Dynamic Regressions.
This table presents the dynamic establishment-level employee regressions using a Stacked DiD regression approach. The dependent variable in each regression is the log of the total number of employees at the establishment. *Treated Est* is an indicator variable equal to one if the establishment is located in a state that has an enacted PFL law and zero otherwise. For each regression the *Treated Est* variable is interacted with an indicator variable that indicates the year relative to the PFL law being enacted in the state. *OtherFirmEst* is an indicator variable equal to one if the establishment is not located in a state that has an enacted PFL law and another establishment owned by the same firm is located in a state with an enacted PFL law, and zero otherwise. For each regression the *OtherFirmEst* variable is interacted with an indicator variable that indicates the year relative to the first treatment year for a firm establishment located in a state with an enacted PFL law. All control variables from Table 4 are included and are defined in Appendix A. Each regression includes establishment-cohort, industry (4-digit NAICS code)-year-cohort, and state-cohort fixed effects. I report t-statistics based on robust standard errors clustered at the state level in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively

	(1)	(2)
Treated Est × *Year(-3)*	-0.004	-0.004
	(-0.63)	(-0.58)
Treated Est × *Year(-2)*	-0.000	-0.002
	(-0.06)	(-0.19)
Treated Est × *Year(-1)*	0.003	0.000
	(0.96)	(0.04)
Treated Est × *Year(1)*	0.009**	0.006
	(2.29)	(1.46)
Treated Est × *Year(2)*	0.008**	0.007**
	(2.63)	(2.03)
Treated Est × *Year(3)*	0.004	0.002
	(1.22)	(0.61)
OtherFirmEst × *Year(-3)*	-0.000	-0.001
	(-0.10)	(-0.57)
OtherFirmEst × *Year(-2)*	0.002	0.002
	(0.81)	(0.46)
OtherFirmEst × *Year(-1)*	0.002	-0.001
	(0.99)	(-0.64)
OtherFirmEst × *Year(1)*	0.001	-0.001
	(0.32)	(-0.35)
OtherFirmEst × *Year(2)*	-0.003	-0.004
	(-0.92)	(-1.50)
OtherFirmEst × *Year(3)*	-0.008**	-0.009***
	(-2.29)	(-2.81)
Observations	4,862,309	4,862,309
R-squared	0.957	0.957
Controls	No	Yes
Cohort-Ind- Year FE	Yes	Yes
Cohort-Establishment FE	Yes	Yes
Cohort-State FE	Yes	Yes

Table 5: Stacked DiD Establishment-level Interaction Regressions

This table presents the establishment-level employee regressions using a Stacked DiD regression approach where indicators for the firm-level financial constraints and firm-level labor intensity are interacted with *Treated Est* and *OtherFirmEst*. Panel A presents the results for the interactions based on whether the firm is financially constrained. The determination of financially constrained firms versus non-financially constrained firms is based on the Size-Age Index from Hadlock and Pierce (2010). Firms with a Size-Age Index value above the median for year *t*-1 are considered to be financially constrained (FC) and firms with a Size-Age Index less than or equal to the median are considered to non-financially constrained (Non-FC). Panel B presents the results for the interactions based on the firm's labor intensity. Labor intensity is calculated as total number of employees in year *t*-1 divided by the total net property, plant, and equipment (Compustat item ppent) in year *t*-1. Firms with a labor intensity value above the median for year *t*-1 are considered to be labor intensive (Labor Int) and all other firms are considered capital intensive (Cap Int). *Treated Est* is an indicator variable equal to one if the establishment is located in a state that has an enacted PFL law and zero otherwise. *OtherFirmEst* is an indicator variable equal to one if the establishment is not located in a state that has an enacted PFL law and another establishment owned by the same firm is located in a state with an enacted PFL law, and zero otherwise. All control variables included in Table 4 are also included in each regression. All other variables are defined in Appendix A. Each regression includes establishment-cohort, industry (4-digit NAICS code)-year-cohort, and state-cohort fixed effects. I report t-statistics based on robust standard errors clustered at the state level in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)
Panel A: Financial Constraint Interactions			
Treated Est × *FC*	0.018***		0.019***
	(5.91)		(5.63)
Treated Est × *Non-FC*	0.004		0.004
	(1.30)		(1.29)
OtherFirmEst × *FC*		-0.008**	-0.008*
		(-2.04)	(-1.98)
OtherFirmEst × *Non-FC*		-0.011***	-0.011***
		(-4.80)	(-4.83)
Treated Est		0.005*	
		(1.82)	
OtherFirmEst	-0.010***		
	(-4.52)		
Observations	4,862,309	4,862,309	4,862,309
R-squared	0.957	0.957	0.957
Controls	Yes	Yes	Yes
Ind-Year-Cohort FE	Yes	Yes	Yes
Establishment-Cohort FE	Yes	Yes	Yes
State-Cohort FE	Yes	Yes	Yes

Panel B: Labor Intensity Interactions			
Treated Est × *Labor Int*	0.009***		0.009***
	(3.42)		(3.31)
Treated Est × *Cap Int*	-0.002		-0.001
	(-0.51)		(-0.49)
OtherFirmEst × *Labor Int*		-0.011***	-0.010***
		(-4.63)	(-4.28)
OtherFirmEst × *Cap Int*		-0.010***	-0.010***
		(-4.08)	(-4.17)
Treated Est		0.005	
		(1.63)	
OtherFirmEst	-0.010***		
	(-4.37)		
Observations	4,845,120	4,845,120	4,845,120
R-squared	0.957	0.957	0.957
Controls	Yes	Yes	Yes
Ind-Year-Cohort FE	Yes	Yes	Yes
Establishment-Cohort FE	Yes	Yes	Yes
State-Cohort FE	Yes	Yes	Yes

Table 6: Total Number of Employees and Locations Extensive Margin Regressions.
This table presents the OLS regression results of the extensive margin regressions examining the number of locations and number of employees in the respective state for each firm. The sample is at the cohort-firm-state-year level and includes states that have a PFL law enacted and the states that border the treated states for years $t-4$ through $t+4$ around the PFL law being enacted. Cohorts are created using the same methodology as the intensive margin Stacked DiD sample. The dependent variable in columns (1) and (2) is the total number of employees located in the state and the dependent variable in columns (3) and (4) is the total number of establishments owned by the firm within the state. Columns (1) and (3) present the baseline results for the full sample where *Treated State* is the main variable of interest. *Treated State* is an indicator variable equal to one if the state has an enacted Paid Family Leave (PFL) law and zero otherwise. In columns (2) and (4) the dynamic results are presented where *Treated State* is interacted with an indicator variable identifying the year relative to the state enacting a PFL law. The control variables include log(*State GDP*), *StateCoinIndex*, *HQ State*, *Size*, *Cash Flow*, *Fixed Assets*, *Leverage*, and *Profitability*. All control variables are defined in Appendix A. Each regression includes cohort-state-firm and cohort-year fixed effects. I report t-statistics based on robust standard errors clustered at the state-firm level in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
	# State Emp		# State Loc	
Treated State	5.831**		0.387***	
	(2.55)		(4.46)	
Treated State × *Year(-3)*		0.712		-0.039
		(0.66)		(-0.98)
Treated State × *Year(-2)*		1.465		-0.030
		(1.18)		(-0.63)
Treated State × *Year(-1)*		1.318		0.008
		(0.99)		(0.16)
Treated State × *Year(1)*		1.852		0.111**
		(1.23)		(2.02)
Treated State × *Year(2)*		2.754*		0.200***
		(1.69)		(3.42)
Treated State × *Year(3)*		5.670***		0.250***
		(3.56)		(4.34)
Observations	242,663	242,663	242,663	242,663
R-squared	0.949	0.949	0.952	0.952
Controls	Yes	Yes	Yes	Yes
Cohort-Year FE	Yes	Yes	Yes	Yes
Cohort-State-Firm FE	Yes	Yes	Yes	Yes

Table 7: Total Number of Employees and Locations Extensive Margin Subsamples.
This table presents the OLS regression results of the extensive margin regressions examining the number of locations and number of employees in the respective state for each firm for subsamples based on firm-level financial constraint and labor intensity. Panel A presents the results for the subsamples based on whether the firm is financially constrained. The determination of financially constrained firms versus non-financially constrained firms is based on the Size-Age Index from Hadlock and Pierce (2010). Firms with a Size-Age Index value above the median for year t-1 are considered to be financially constrained (FC) and firms with a Size-Age Index less than or equal to the median are considered to non-financially constrained (Non-FC). Panel B present the results for the subsamples based on the firm's labor intensity. Labor intensity is calculated as total number of employees in year t-1 divided by the total net property, plant, and equipment (Compustat item ppent) in year t-1. Firms with a labor intensity value above the median for year t-1 are considered to be labor intensive (Labor Int) and all other firms are considered capital intensive (Cap Int). *Treated State* is an indicator variable equal to one if the state has an enacted Paid Family Leave (PFL) law and zero otherwise. The sample is at the cohort-firm-state-year level and includes states that have a PFL law enacted and the states that border the treated states for years $t-4$ through $t+4$ around the PFL law being enacted. All control variables from Table 6 are included in each regression and are defined in Appendix A. Each regression includes cohort-state-firm and cohort-year fixed effects. I report t-statistics based on robust standard errors clustered at the state-firm level in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
Panel A: Financially Constrained vs Non-Financially Constrained				
	# State Emp		# State Loc	
	FC	Non-FC	FC	Non-FC
Treated State	4.943***	4.674	0.297***	0.426***
	(3.23)	(1.16)	(3.94)	(2.86)
Observations	119,623	121,305	119,623	121,305
R-squared	0.942	0.950	0.951	0.953
Controls	Yes	Yes	Yes	Yes
Cohort-Year FE	Yes	Yes	Yes	Yes
Cohort-State-Firm FE	Yes	Yes	Yes	Yes
Panel B: Labor Intensive vs Capital Intensive				
	# State Emp		# State Loc	
	Labor Int	Cap Int	Labor Int	Cap Int
Treated State	10.507***	1.521	0.625***	0.215*
	(3.27)	(0.47)	(4.91)	(1.74)
Observations	118,646	118,843	118,646	118,843
R-squared	0.957	0.948	0.962	0.945
Controls	Yes	Yes	Yes	Yes
Cohort-Year FE	Yes	Yes	Yes	Yes
Cohort-State-Firm FE	Yes	Yes	Yes	Yes

Table 8: Firm-level Baseline Regressions.
This table presents the OLS regression of the baseline firm-level investment rate and employment tests. The results for aggregate firm investment, *Investment Rate*, are reported in columns (1) and (2) and columns (3) and (4) report the results for the 4-digit NAICS industry adjusted total employment, *Ind Adj Emp*. *Investment Rate* is calculated as the firm's capital expenditures (capx) in year *t* less the sale of property, plant, and equipment (sppe) in year *t* scaled by the average net property, plant, and equipment (ppent) in years *t* and *t*-1. *Ind Adj Emp* is calculated as the total number of employees in year *t* less the 4-digit NAICS code industry median employees in year *t* from Compustat. *Treated PFL* is the main variable of interest and is an indicator variable equal to one if the firm has at least one establishment located in a state with an enacted Paid Family Leave (PFL) law and zero otherwise. All control variables are measured in year *t-1* and are defined in Appendix A. Each regression includes firm fixed effects and year fixed effects. I report t-statistics based on robust standard errors clustered at the firm level in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
	Investment Rate		*Ind Adj Emp*	
Treated PFL	-0.031***	-0.017***	0.053***	0.031
	(-7.26)	(-4.40)	(2.64)	(1.55)
M/B Assets		0.034***		-0.011
		(21.67)		(-1.49)
Cash Flow		-0.003		0.066
		(-0.21)		(1.25)
Size		-0.001		0.176***
		(-0.51)		(12.47)
Cash		0.159***		0.038
		(11.51)		(0.78)
Leverage		-0.071***		-0.087
		(-7.05)		(-1.48)
Profitability		0.213***		-0.116***
		(18.78)		(-2.67)
Sales Growth		0.098***		0.077***
		(22.38)		(5.76)
Observations	53,684	53,684	53,684	53,684
R-squared	0.516	0.578	0.644	0.649
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes

Table 9: Firm-level Subsample Regressions.
This table presents the OLS regression of the firm-level investment rate and employment tests for subsamples based on firm-level financial constraint in Panel A and firm-level labor intensity in Panel B. In each panel the results for aggregate firm investment, *Investment Rate*, are reported in column (1) and (2) and columns (3) and (4) report the results for the 4-digit NAICS industry adjusted total employment, *Ind Adj Emp*. *Investment Rate* is calculated as the firm's capital expenditures (capx) in year *t* less the sale of property, plant, and equipment (sppe) in year *t* scaled by the average net property, plant, and equipment (ppent) in years *t* and *t*-1. *Ind Adj Emp* is calculated as the total number of employees in year *t* less the 4-digit NAICS code industry median employees in year *t* from Compustat. *Treated PFL* is the main variable of interest and is an indicator variable equal to one if the firm has at least one establishment located in a state with an enacted Paid Family Leave (PFL) law and zero otherwise. In Panel A the determination of financially constrained firms versus non-financially constrained firms is based on the Size-Age Index from Hadlock and Pierce (2010). Firms with a Size-Age Index value above the median for year *t*-1 are considered to be financially constrained (FC) and firms with a Size-Age Index less than or equal to the median are considered to non-financially constrained (Non-FC). For Panel B labor intensity is calculated as total number of employees in year *t*-1 divided by the total net property, plant, and equipment (Compustat item ppent) in year *t*-1. Firms with a labor intensity value above the median for year *t*-1 are considered to be labor intensive (Labor Int) and all other firms are considered capital intensive (Cap Int). All control variables from Table 8 are included in each regression and are defined in Appendix A. Each regression includes firm fixed effects and year fixed effects. I report t-statistics based on robust standard errors clustered at the firm level in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
Panel A: Financially Constrained vs Non-Financially Constrained				
	Investment Rate		*Ind Adj Emp*	
	FC	Non-FC	FC	Non-FC
Treated PFL	-0.008	-0.027***	0.035	0.027
	(-1.38)	(-5.51)	(1.23)	(0.90)
Observations	26,718	26,730	26,718	26,730
R-squared	0.568	0.585	0.637	0.649
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes

Panel B: Labor Intensity Interactions				
	Investment Rate		*Ind Adj Emp*	
	Labor Int	Cap Int	Labor Int	Cap Int
Treated PFL	-0.015**	-0.017***	0.021	0.051*
	(-2.30)	(-4.41)	(0.78)	(1.70)
Observations	26,450	26,433	26,450	26,433
R-squared	0.568	0.560	0.701	0.628
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes

Table 10: Firm-level Entropy Balanced Sample.
This table presents the OLS regression of the baseline firm-level investment rate and employment tests for an entropy balanced sample. Each treated observation is matched to a group of control firms on a set of observable variables from the previous year including including *M/B Assets*, *CashFlow*, *Size*, *Cash*, *Leverage*, *Profitability*, and *Sales Growth*. The result for firm investment rate, *Investment Rate*, is reported in column (1) and column (2) reports the results for the 4-digit NAICS industry adjusted total employment, *Ind Adj Emp*. *Investment Rate* is calculated as the firm's capital expenditures (capx) in year *t* less the sale of property, plant, and equipment (sppe) in year *t* scaled by the average net property, plant, and equipment (ppent) in years *t* and *t*-1. *Ind Adj Emp* is calculated as the total number of employees in year *t* less the 4-digit NAICS code industry median employees in year *t* from Compustat. *Treated PFL* is the main variable of interest and is an indicator variable equal to one if the firm has at least one establishment located in a state with an enacted Paid Family Leave (PFL) law and zero otherwise. All control variables are measured in year *t-1* and are defined in Appendix A. Each regression includes firm fixed effects and year fixed effects. I report t-statistics based on robust standard errors clustered at the firm level in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)
	Investment Rate	*Ind Adj Emp*
Treated PFL	-0.021***	0.036*
	(-4.90)	(1.80)
M/B Assets	0.035***	-0.012
	(19.50)	(-1.62)
Cash Flow	-0.018	0.060
	(-1.34)	(1.08)
Size	-0.000	0.185***
	(-0.06)	(12.33)
Cash	0.173***	0.065
	(10.86)	(1.20)
Leverage	-0.058***	-0.122*
	(-5.03)	(-1.92)
Profitability	0.225***	-0.110**
	(17.44)	(-2.49)
Sales Growth	0.101***	0.080***
	(21.48)	(5.84)
Observations	53,684	53,684
R-squared	0.606	0.657
Year FE	Yes	Yes
Firm FE	Yes	Yes