

# Family Friendly Workplace Policy and Early Career Job Sorting: The Case of Paid Maternity Leave

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## Research Article

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# Family Friendly Workplace Policy and Early Career Job Sorting:

## The Case of Paid Maternity Leave

Anja Gruber\*

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### Abstract

Much of the unconditional gender wage gap can be explained by differences in the types of jobs held by men and women. This paper examines the role of family friendly job amenities in women's job selection by testing whether state paid family leave (PFL) programs, which disproportionately increase access to paid leave in industries where employer-provided paid leave is relatively uncommon, change the industry composition of young women towards industries that prior to the policy change had lower levels of employer-provided paid leave. I use data on new mothers from the Current Population Survey to estimate an industry level measure of employer-provided paid leave taking and exploit the implementation of the California (2004), New Jersey (2009), and Rhode Island (2014) PFL programs using data from the American Community Survey and difference-in-differences and staggered adoption design estimations. I find that PFL led to a quantitatively meaningful flow into industries with lower levels of employer-provided paid leave taking in the absence of PFL. The results indicate that women value paid leave as an amenity, even prior to motherhood.

Key words: paid family leave, job segregation, job amenities

JEL Classifications: J08, J13, J16

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## 1. Introduction

Today, almost all of the male-female pay gap that remains after controlling for observable worker characteristics can be attributed to the motherhood or “child penalty” (Cortés and Pan, 2023; Kleven et al., 2019a; Kleven et al., 2019b; Andresen and Nix, 2022). However, a sizable unconditional earnings gap persists even prior to motherhood.<sup>1</sup> In addition to differences in hours worked, much of this gap can be explained by job segregation. Women sort into different occupations and into different jobs within a given occupation (Goldin, 2014; Goldin, 2021). It is likely that such career choices are at least partially informed by the desire to pursue career and family.<sup>2</sup>

In this paper, I exploit the implementation of state paid family leave (PFL) policy as a natural experiment to study whether specific family friendly job amenities shift college educated women into career paths that they would not have chosen for lack of family amenability. In the absence of state PFL, women can take paid maternity leave if their employer provides this benefit. State PFL allows almost all new mothers employed in the private sector to take paid leave. As a consequence, jobs with lower levels of employer-provided leave taking see a disproportionate increase in this job amenity. I test whether the relative attractiveness of such jobs increases in a way that sways women’s career choices and thus whether a lack of paid family leave keeps women from choosing jobs they would otherwise prefer.

Despite the fact that PFL programs in US states constitute a relatively small benefit, they present a job amenity that is likely desirable for many young women: Without access to paid leave, women who desire to remain employed can return quickly to their job or can take unpaid time off. A rapid return to work post childbirth is costly. Taking unpaid time off during a time of heightened expenses is also not a viable option for many women. Further, if PFL programs affect the concentration of women and mothers at work, they can lead to positive spillover effects on young women who anticipate combining career and family in the future and observe the women ahead of themselves as a signal that their career is in fact suitable to do so.

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<sup>1</sup>In my sample from 2000-19, the raw male-female earnings gap for full-time, college educated, childless employees is roughly \$7,000 at age 25, and roughly \$15,000 at age 40. Weighted means calculated using ACS data.

<sup>2</sup>I.e., Wiswall and Zafar (2018) estimate that women have a higher willingness to pay for work flexibility and job stability. Wasserman (2023) shows that women favor careers with lower weekly hours. Goldin (2014) highlights how women and in particular mothers disproportionately select out of what she has coined “greedy jobs”. All of this evidence is compatible with a greater desire to choose family amenable careers for young women relatively to young men.

I test whether the availability of publicly provided paid leave increases the concentration of young women in industries with lower levels of leave taking in the absence of PFL. For each state and year, I construct an index that represents the expected employer-provided paid leave taking based on the distribution of industries women work in. To do so, I calculate the share of mothers of infants without access to state PFL who take paid leave at any given time during their child's first year of life using data from the Current Population Survey (CPS). I then calculate an average of this industry-level measure, weighted by the share of college-educated women employed in each industry in a state and year using data from the American Community Survey (ACS). Since the underlying industry-level leave taking measure is time- and state-invariant, changes in this index occur only through changes in the industry distribution of women's jobs. Using difference-in-differences and staggered adoption design estimations, I exploit the implementation of the California (2004), New Jersey (2009), and Rhode Island (2014) state policies.

I find that PFL shifts the industry composition of college educated women ages 25-39 towards industries with lower levels of employer-provided paid leave. Specifically, I find that the distribution of jobs changed enough to lower my industry-based employer-provided leave index by two percent. The results are robust to the inclusion of controls that vary at the state and year level, and robust to a different comparison group that only includes states that implement PFL after my period of analysis. Event-study style results show limited evidence of pre-trends. The same pattern of results holds across all three policy states. Sub-group analyses show that in California and Rhode Island, the results are driven by industry group composition changes among younger, unmarried, and childless women. While new fathers are eligible for PFL, I do not expect that paid leave provides the same amenity for men. I find smaller and less robust changes in the industry composition for men, which helps rule out alternative explanations such as industry-specific demand shocks. Finally, in supplementary analyses I find suggestive evidence that within an occupation group, state PFL policy implementation sways women towards employers that see a disproportionate increase in access to paid leave.

Despite the large and growing body of research on the impact of state paid parental leave programs on labor market outcomes<sup>3</sup>, to my knowledge, my study is the first to consider the

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<sup>3</sup>For example, Byker (2016) finds increased labor force attachment for mothers following the implementation of paid family leave in California and New Jersey. Baum and Ruhm (2016) find increased employment probabilities for mothers in the year following birth and increased weeks and hours worked in the child's second year of life following

impact on the career choices of women leading up to motherhood. I extend our understanding of the impact of PFL by showing that women do take into account the family amenability of a job as well as policy regarding the compatibility of work and family when they make early career decisions.

This study also contributes to the literature that evaluates the higher value women place on the family friendliness of jobs, much of which relies on hypothetical choice models and lacks exogenous variation. This literature has documented that women disproportionately value lower hours, work flexibility, job stability, and less “greedy jobs” (Wiswall and Zafar, 2018; Wasserman, 2023; Goldin, 2014; Goldin, 2021). Most closely related to my project, D’Angelis (2023) estimates a hedonic search model and finds that women are 39% more likely than men to pay for paid parental leave in terms of accepting lower wages. My study exploits a natural experiment to isolate the value women place on paid leave as a job amenity to provide causal evidence. Further, I show that concerns about paid leave are large enough to affect the career choices of college educated women and sway them into different jobs.

Finally, I add to the large body of literature that documents the motherhood earnings penalty (see Cortés and Pan (2023) for a recent review of the literature) and show that the impact of motherhood extends into young women’s careers prior to having children. My paper shows that considerations regarding future motherhood already impact the career choices and thus the pay of young women prior to having a first child.

The remainder of this paper is organized as follows: Section 2 provides background information on state PFL legislation, section 3 discusses the conceptual framework underlying my analyses, and section 4 details the construction of my outcome variable and discusses the data used to measure women’s labor market outcomes. I present the empirical strategy and results for the impact of PFL on industry composition in section 5 and the empirical strategy and results of my within occupation analysis in section 6. Section 7 concludes.

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the implementation of paid family leave in California. Bartel et al. (2018) come to a similar result regarding hours. On the other hand, using IRS tax data, Bailey et al. (Forthcoming) find decreased employment and annual wages in the long-term for mothers who opted into the California paid leave program. Blair and Posmanick (2023) argue that state and federal family-leave policies can explain almost all of the reduction in the conditional rate of gender wage convergence. Lichtman-Sadot (2014), Oloomi (2016) consider the impact of PFL policy on fertility.

## 2. Background: State Paid Family Leave Legislation

The US is the only Western country without a federal paid maternity leave program in place. Unpaid, job protected parental leave is available federally only since 1993 through the Family and Medical Leave Act (FMLA). The FMLA allows eligible mothers and fathers to take 12 weeks of leave to care for a newborn during the first 12 months following birth. The FMLA also allows workers to take leave for the addition of a foster or adopted child to the family, for one's own sickness, or to care for a sick family member. It covers employers with at least 50 employees in the private sector. Federal, state, and local government employers and educational agencies including schools are covered regardless of the number of employees. Workers at covered employers are eligible only if they have worked at the employer for at least 12 months and 1,250 hours before their FMLA leave starts, and work at a location where the employer has at least 50 employees within 75 miles. These requirements mean that, according to the Department of Labor, in 2020 just over 50% of US workers were eligible for FMLA leave (Brown and Klerman, 2020).

In the three states that first implemented PFL policies and that are the subject of my analyses, California, New Jersey, and Rhode Island, as well as Hawaii and New York, child birth has been covered under the temporary disability insurance (TDI) since 1978. In these states, employed women have been able to nearly universally take four weeks of paid leave prior and six weeks<sup>4</sup> of paid leave following birth at partial wage replacement rates.

In the absence of PFL policy, mothers in states without TDI coverage of childbirth who wish to take a leave from work to stay home with their newborn and mothers in states with TDI coverage who wish to take longer leaves have to rely on employer-provided leave or have to piece together sick leave, PTO, and unpaid leave. Even among those employers that offer fully paid leave, the length of leave varies greatly. The organization "Great Place to Work" estimates that based on a survey of half a million of working parents, the average amount of employer provided leave in the US is around 4 weeks, whereas top companies provide around 16 weeks (Hastwell, 2023). In many cases, employees become eligible for paid leave benefits only after they have fulfilled certain tenure requirements.<sup>5</sup>

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<sup>4</sup>An additional 4 weeks of post birth leave is provided for women who have a cesarean birth or experience other medical complications.

<sup>5</sup>For example, as of July 1, 2018, CU Boulder provided 4 weeks of paid leave for regular 12-month faculty, university

To date, 14 states and Washington, D.C. have passed state PFL policies. Appendix table A1 provides an overview of these policies.<sup>6</sup> The state policies vary by length, replacement rate, job protection, and eligibility requirements. In general, state PFL policies provide roughly 12 weeks total of paid leave, with regressive pay replacement that is capped at a maximum benefit. All PFL programs are funded through mandatory payroll taxes and are relatively easy to apply for through state program websites. Both women and men are eligible to use PFL to care for an infant in its first year of life, care for a child following adoption or foster care placement, or to attend to one's own or a family member's serious health condition.

Implemented first, the PFL programs in California, New Jersey, and Rhode Island are the focus of my analysis. Given the TDI rules in those states, when implemented, the PFL programs extended the length of paid leave available to employed women by 6 (CA, NJ) and 4 (RI) weeks, with the maximum wage replacement rates equal to those available through TDI. The policy details for each of the three states are shown in table 1.

In jobs with access to 6 weeks (4 in RI) of employer-provided paid leave prior to PFL implementation, the policy most likely only changes the source of (some of) an employee's pay while on leave.<sup>7</sup> In jobs that did not have employer-provided leave coverage, state PFL programs apply almost universally to private sector employees and extend partially paid leave to workers who did and did not have access to unpaid leave beyond the TDI leave through the FMLA. While all employees receive job protection in New Jersey, job protection is not extended to non-FMLA eligible workers in Rhode Island, and only to some in California.<sup>8</sup>

The policy landscape is even more complex for other types of employment: Independent contractors or self-employed individuals are eligible to receive state PFL benefits if they self-elect into coverage by paying a share of their wages into the program.<sup>9</sup> State and local government employees are not covered under the California and Rhode Island state PFL programs, but are covered under

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staff or classified staff employees who have worked for 12 consecutive months in a 50% or greater appointment at the University immediately prior to the date of birth, adoption, foster care placement or guardianship of a child.

<sup>6</sup>Note that the table provides information about each policy when it was first implemented. A number of states have progressively increased the generosity of their programs since.

<sup>7</sup>The typical response of an employer who provided generous paid leave in the absence of policy appears to be maintain the same amount of paid leave to employees. For example, an employee who was able to take 6 weeks of fully paid leave prior to the policy will still be able to do so, with the difference between the state PFL wage replacement rate and the employee's salary compensated for by the employer.

<sup>8</sup>I.e. those who meet the work-tenure requirements at an employer with less than 50 and more than 5 employees.

<sup>9</sup>Opt-in rates for self-employed people are reportedly low across all states.

**Table 1 — Paid Family Leave Policy**

|                                | <b>California</b>                                                                                                                   | <b>New Jersey</b>                                                                                      | <b>Rhode Island</b>                                                                                                                                                    |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date Passed                    | 2002                                                                                                                                | 2008                                                                                                   | 2013                                                                                                                                                                   |
| Date Effective                 | July 2004                                                                                                                           | July 2009                                                                                              | January 2014                                                                                                                                                           |
| Length                         | 6 weeks                                                                                                                             | 6 weeks                                                                                                | 4 weeks                                                                                                                                                                |
| Maximum Pay Replacement        | 55%                                                                                                                                 | 66.67%                                                                                                 | 60%                                                                                                                                                                    |
| Maximum Weekly Benefit Amount  | \$728                                                                                                                               | \$546                                                                                                  | \$752                                                                                                                                                                  |
| Job Protection                 | Available through CFRA if employer has 5+ employees and employee has worked at the employer for at least 12 months and 1,250 hours. | Included in NFLA.                                                                                      | Available through RIFFMLA if employer has 50+ employees and employee has worked at the employer for at least 12 months and 1,250 hours.                                |
| Included Employers             | Private sector employers, state and local government employers on a voluntary basis                                                 | Private sector employers with 50+ employees, state and local government employers on a voluntary basis | All employers                                                                                                                                                          |
| Employee Requirements          | Employed at job covered by CA SDI, must have earned \$300 or more in wages in 4 of the 5 quarters before the claim                  | Employed in NJ, must have earned on average \$145 per week during 4 of the 5 quarters before the claim | Employed at job covered by TDI, have earned at least \$ 11,520 in highest earning quarter of 5 quarters leading up to claim or \$23,040 in total during those quarter. |
| Self-Employed tax contribution | 1.2%                                                                                                                                | 0.99%                                                                                                  | 1.2% up to the base of \$61,400                                                                                                                                        |

**Notes:** Information shown in the table 1 comes from each state's PFL program website. Information is based on the program specifics as of when the program was first implemented. Replacement rates are lower for individuals with higher incomes. Self-employed are covered on a voluntary, opt-in basis in all states, federal employees are not covered.

the New Jersey program. However, in California and Rhode Island, public employers may opt into the program much like self-employed individuals. Federal Government employees are typically not covered by state PFL policies. Instead, they can receive paid parental leave (PPL) as a substitute for unpaid FMLA leave for any child born or placed on or after October 1, 2020.

### **3. Conceptual Framework: Career Choice Response to Availability of Paid Parental Leave**

Given the focus of my project on the early career decisions of women leading up to and in early motherhood, this project focuses on college educated women. Relative to women without a college degree, these women experience delayed fertility and thus have an opportunity for strategic career movements prior to motherhood. They are also more likely to take-up PFL (Han et al., 2009), demonstrating a higher valuation of the amenity offered by the policy.<sup>10</sup> I restrict all of my analyses to women age 25-39 to be able to capture a sample of women who are most likely making fertility decisions and career decision that are informed by their fertility decisions.

This paper exploits the fact that state PFL policies lower the cost of having a child disproportionately in jobs that have lower levels of access to employer-provided paid leave in the absence of a PFL program. In other words, I use state PFL policies as a natural experiment to test if women value paid leave in a way that sways their career choices towards jobs that see paid leave coverage increase more when a state law goes into effect.

Paid leave lowers the cost of giving birth while employed at a given job. Without paid leave, new mothers have the choice between returning to work quickly following the birth of a child or staying home without pay and in many cases without job protection. Both pose a significant cost: Having to return to work before a baby is three months old is often not practical as most

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<sup>10</sup>Appendix figure A2 shows the share of women with and without a college degree by age that have any own children in their household in panel (a) and the share of college educated women with one, two or more children by age in panel (b), all calculated using data from the 2000-19 ASEC. At age 25, college educated women are less than half as likely as women without a college degree to have entered motherhood. Further, while the share of college educated women who enter motherhood increases rapidly throughout the late 20s, the share with additional children begins to increase rapidly only in the 30s. This means that college educated women have in fact time to have a career prior to having children and have ample time for career shifts prior to having additional children. Further, given the large difference in employer-provided access to leave and take-up of state PFL between mothers with and without a college degree (Han et al., 2009), any measure of access to paid leave at the job level should be estimated separately for college educated women.

formalized childcare arrangements (i.e. day care) do not accept babies younger than 12 weeks.<sup>11</sup> A quick transition back to work can also be particularly challenging for mothers, who are still recovering from childbirth and need to decide if they would like to continue to breastfeed their baby if they chose to do so in the first place. On the other hand, taking unpaid time off from work may pose financial challenges at a time of heightened expenses. For example, according to the health care cost institute, the average out of pocket cost to cover just the delivery (not including the hospital stay) was about \$1,900 in 2020. The National Database of Childcare Prices shows that in 2018, the average childcare costs during an infant's first year of life ranged from \$5,824 to \$15,417 depending on the county of residence and the type of care. While college educated women are often married to a spouse with relatively high income, a significant drop in family income, even when temporary, can therefore still pose a burden to the family's financial situation.

Based on the National Compensation Survey (NCS), the Bureau of Labor Statistics (BLS) estimates that in 2023, 27% of private sector workers and 28% of State and local government employees had access to paid leave through their employer.<sup>12</sup> As discussed above, access to paid leave in the absence of state PFL, provided by one's employer, is highly unequal across employers and jobs. Given the near universal access to paid leave following the implementation of state PFL policies for private sector employees, state PFL provides an unequal benefit across different jobs: In jobs with high levels of employer-provided leave, they provide little or no benefit. In jobs with very low employer-provided leave coverage, they lower the cost of giving birth. Women should therefore respond to the differential change in access to paid leave by shifting towards jobs that are less likely to offer paid leave or offer less generous leave in the absence of policy.

In addition to disproportionately decreasing the cost of giving birth in jobs with lower pre-policy employer-provided paid leave coverage, I also expect leave taking and possibly employment for new mothers to increase more in those jobs.<sup>13</sup> This suggests that women in jobs with less access to

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<sup>11</sup>At the day care my daughters attend parents have to pay the regular rate for younger babies to reserve their spot but cannot bring their baby to the day care before they are 12 weeks old.

<sup>12</sup>Similarly, for women who responded that they worked during the pregnancy preceding their first birth, 38% indicated that they took paid parental leave and 29% indicate that they took unpaid leave in the 2019 SIPP (Scherer, 2022).

<sup>13</sup>Baum and Ruhm (2016), Rossin-Slater et al. (2013), and Bailey et al. (Forthcoming) all estimate an increase in leave taking for eligible mothers by 3-5 weeks following the implementation of the California paid leave policy. Rossin-Slater et al. (2013) show that increases in leave-taking are particularly concentrated with less educated, unmarried and non-white mothers. Recent reviews of the labor market impacts of state PFL policy can be found in Olivetti and Petrongolo (2017) and Canaan et al. (2022). Due to sample size limitations, evaluations of short-term paid leave programs in the US have focused largely on the 2004 California PFL program and mostly provide evidence of small

employer-provided paid leave will become disproportionately more exposed to new mothers taking leave and returning to their job due to the policy. Observing more women who manage to balance having a family while succeeding in one's career may have important peer effects on young women, even if the policy change is not immediately salient for them: It is a signal to a young woman that her job is in fact suitable for combining career and family.<sup>14</sup>

Women's career choices may also be impacted by decreased job lock due to state PFL policies. A woman who is pregnant or soon hoping to get pregnant may be discouraged from taking a new job or even looking for a different job if or in case that new job has tenure requirements to qualify for leave, such as the 12 month of employment at one's employer for FMLA unpaid leave. Even if jobs with immediate benefits are available, it may seem daunting to leave a job with known benefits, or to bring up a pregnancy or future pregnancy in the interview process. If state PFL reduces the tenure requirements for new mothers to qualify for paid or unpaid leave, then these policies may also lead to a decrease in job lock leading up to childbirth. Looze (2017) evaluates the number and type of job separations using NLSY data and finds that pregnancy decreases the hazard of changing jobs for voluntary reasons by 66%. This result leaves room to speculate that existing policy (employer paid leave policy or FMLA) may discourage women from finding new employment immediately leading up to childbirth in an effort to not lose any maternity leave benefits that are tied to tenure at an employer. Looking directly at the impact of the California PFL policy on churn among all young women using data from the Quarterly Workforce Indicators (QWI), Curtis et al. (2016) find increases in hires and separations, again providing more suggestive evidence of this mechanism. Reduced job lock enables women to make the kinds of career shifts that I test for in this paper.

A frequently cited concern regarding paid leave policies is that they increase the cost of labor to increases in labor force participation, employment, and earnings in the short-run (Rossin-Slater et al., 2013; Baum and Ruhm, 2016; Byker, 2016). However, using administrative tax data, Bailey et al. (Forthcoming) provide new evidence on the California PFL policy and show that first time mothers who took up paid leave experienced short-and long-run decreases in employment and earnings. Evidence from Canada (Baker and Milligan, 2008) suggests that leave entitlements increase job continuity with the pre-birth employer for new mothers.

<sup>14</sup>A number of European studies show the importance of peer effects in an individual's decision to take up paid parental leave (Welteke and Wrohlich, 2019; Dahl et al., 2014; Dottori et al., 2024). Peer effects have also been shown to play a role in woman's labor supply (Nicoletti et al., 2018), and the choice to pursue entrepreneurship (Markussen and Røed, 2017). In terms of job selection, Kofoed et al. (2019) show that having a same-gender or same-race mentor influences the occupation choice of women in a case study of female cadets who were assigned to female mentors. These findings are relevant to my study because they suggest that young, childless women might be impacted by a policy change that directly affects new mothers simply by observing the labor market behaviors of those new mothers.

firms and thus lead to unintended consequences. Existing research on the impacts of PFL policy on employers has found mostly small negative (i.e. Bartel et al., 2023; Goodman et al., 2020) or mixed effects (i.e. Ginja et al., 2023; Gallen, 2019). Still, statistical discrimination may lead to adverse labor market outcomes for women of childbearing age. A few studies have considered the general equilibrium effects of PFL policies in the US on demographic groups that are not directly treated by the policy and find no effect (Curtis et al., 2016) or small decreases in employment and earnings for young women (Huebener et al., 2021; Timpe, 2024; Stock and Inglis, 2021). It is possible that such negative employment effects would be larger at employers that don't already offer paid leave prior to PFL policy implementation.<sup>15</sup> In other words, decreased hiring of young women in jobs with lower levels of access to paid leave in the absence of policy may work in the opposite direction of the hypothesis tested in this paper. However, because existing research has found only found small effects, I still expect young college educated women to be swayed towards jobs with relatively lower access to paid leave in the absence of policy.

Existing research also suggests that state PFL programs may have a positive impact on fertility as well as impact the timing of births (Girsberger et al., 2023; Lichtman-Sadot, 2014; Oloomi, 2016). Considering an Austrian parental leave program reform, Lalive and Zweimüller (2009) find increased fertility in particular in terms of second births. However, Bailey et al. (Forthcoming) do not find a change in fertility following the CA PFL policy implementation. Even if the PFL policies studied in my paper lead to a small increase in fertility, I do not believe that this would play a large role in the job selection of young women: Data from the GSS shows that intended fertility is higher than completed fertility; thus women who are swayed into having a baby by the policy change will most likely already have considered having a baby prior to the policy, which might already impact their career choices.

In this study, I consider how the job level change in access to paid leave affects women's career choices, rather than how a job level change in the monetary value of leave affects those choices. First, this is because the actual benefit amount is unlikely to be salient for a woman unless she is actively applying for PFL. Further, Lalive et al. (2014) show that in addition to job protected leave, pay does matter for the length of leave that women take advantage of. This means that my

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<sup>15</sup>On the contrary, if all firms respond similarly to the implementation of state PFL policies, any decrease in hiring of women of childbearing age would not impact my outcome variable which considers the job composition of employed women.

measure of employer-provided paid leave coverage, as discussed in the following section, implicitly incorporates differences in the rate at which leave is paid prior to PFL implementation. For all of the higher earning women in my sample whose income qualifies them for the maximum state PFL benefit, measuring the change in the monetary value of leave would therefore be equivalent to measuring the change in the access to paid leave. Women with lower incomes receive a smaller monetary benefit, but this benefit constitutes a larger percentage of their income. Therefore, it is not clear that differences in the change of the monetary value of paid leave would have any impact on career selection.

Fathers are also covered by state PFL policies. However, given that they do not experience the same cost of birth as new mothers, I do not expect the policy to have the same impact on their career choices. In fact, take-up appears to be much more limited, with an increase in leave taking of only a few days following state PFL implementation (Rossin-Slater et al., 2013), suggesting that men do not value this job amenity in the same way as young women.

#### **4. Measuring Employer-Provided Paid Parental Leave Coverage**

Very few nationally representative data sets in the US offer any insights about the job level access to unpaid or paid maternity leave.<sup>16</sup> In addition to covering only relatively small samples or broad job categories, these data sets are not able to capture the complexities of maternity leave. Jobs differ in the length, rate of pay, and job protection of any leave that is offered, as well as in the job tenure requirements to become eligible for any leave. Employers may offer different leave to employees with different employment histories and may offer leave beyond their formal company policies in individual cases. Further, when employees are able to access pay through vacation pay, sick leave or previously accrued paid time off (PTO), they are experiencing paid leave, even though they formally don't have access to paid parental leave.<sup>17</sup> Finally, even when leave is offered, norms

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<sup>16</sup>The Survey of Income and Program Participation (SIPP) has re-added a question about the types of leave taken after child birth in 2019. In its 2011, 2017, and 2018 Leave Supplements, the American Time Use Survey (ATUS) asks employees if their job offers paid or unpaid family leave for the birth of a child. The National Longitudinal Surveys (NLSY) asks detailed questions about the work experiences of mothers around the time of their giving birth, but the sample size of each cohort is less than 1000 respondents. Finally, the National Benefits Survey (NSB) provides information about the share of workers with access to paid and unpaid family leave at the 2-digit NAICS code industry-level.

<sup>17</sup>According to a 2016 PEW Research study that conducted interviews with 6000 Americans who had recently taken leave or wanted but were unable to take leave, 65% of those who took leave received some kind of pay. However, almost 80% of them reported that the pay came from vacation days, sick leave, or PTO rather than paid parental

may discourage individuals from taking advantage of the leave.

Rather than measuring theoretical access to paid leave, I use data from the 2000-19 Current Population Survey Annual Social and Economic Supplement (CPS-ASEC) and 2000-19 American Community Survey (ACS) to construct an industry-level measure of observed employer-provided paid leave taking in the absence of state PFL. I focus on the labor market status of mothers of infants (child is younger than one year old). The CPS-ASEC asks specifically about parental leave and whether or not this leave was paid.<sup>18</sup> Of all mothers of infants, 41% report that they are not in the labor force (“OLF”), 53% report that have a job and worked in the past week (“working”), and 3% each report that they have a job but were on unpaid or paid leave in the past week.<sup>19</sup>

In addition to a relatively small sample size (46,688 college educated mothers of infants from 2000-19), the main drawback of the CPS-ASEC is that it reports the occupation, industry, and class of worker only for those currently employed, unemployed following employment, or out of the labor force following employment in the past year. This means that the share of infant mothers who are out of the labor force in a given occupation or industry is vanishing small. Instead, the vast majority of infant mothers who are recorded as not being in the labor force do not have an occupation or industry listed. Because the ACS records the occupation, industry, and class of worker for anyone who worked within the last five years, the job level rate of labor force participation of mothers of infants is much more accurate.<sup>20</sup>

I use pooled data from 2000-19 for all states that do not implement a PFL program and do not leave benefits.

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<sup>18</sup>Specifically, I combine information from three variables, ABSENT, WHYABSNT and PAYIFABS. These variables allow me to identify individuals who report being absent from work last week for reasons other than layoffs, who report being on parental leave, and who report receiving pay during their absence.

<sup>19</sup>Appendix table A2 summarizes the characteristics of mothers of infants by their labor force status. In the absence of state PFL, mothers who take paid leave on average are older and have fewer children than mothers who are out of the labor force, working, or taking unpaid leave. Most notably, they are much more likely to have a college degree, and have much higher personal and family incomes. They are also less likely to have switched employers in the past year, less likely to work for a very small employer, and much more likely to have worked for a very large employer than mothers in all other labor market categories. Interestingly, mothers who are employed or on unpaid leave are much more similar to mothers who are not in the labor force than to mothers who are on paid leave in terms of their demographics.

<sup>20</sup>Appendix figure A3 shows the average labor force participation in panel a) and share on leave in panel b) for all college educated mothers of infants over time. In the pooled sample of almost 2 million college educated mothers of infants in the ACS from 2000-19, the average rate of labor force participation is 73%. 10.3% report that they were absent from their job in the week prior to the survey. In addition to parental leave, absence from one's job can occur due to reasons covered by PFL programs that are the focus of this paper, such as one's own illness or a family member's illness, or occur for reasons not covered, such as bad weather, low demand for work, or vacation. Therefore, this measure overestimates parental leave taking. It also provides no information about pay during the absence. While the CPS-ASEC has a much smaller sample size (46,688 versus 165,942 college educated mothers of infants), it asks specifically about parental leave and whether or not this leave was paid.

provide TDI for new mothers<sup>21</sup> from 2000-19<sup>22</sup> to calculate a measure of industry-level employer-provided paid leave taking.<sup>23</sup> I choose industry rather than occupation as the main job level considered in this analysis. Occupation switching is more rare than industry switching, with 11.7% reporting that they did not work in their current occupation a year prior, relative to 16.5% who report being new to their industry.<sup>24</sup> Of the women who switch industries in a given year, 40% remain in their occupation. In other words, even for women who have locked into a career path by pursuing occupation specific education and remaining in this occupation, there is considerable room to select into different jobs based on the industry of employment. Together, this leads me to focus on the industry composition of college educated women aged 25-39 employed in the private sector.<sup>25</sup> Given the limited sample size of mothers of infants in the CPS, I aggregate the 1990 Census Bureau industrial classification system into 23 industry groups shown in appendix table A3. For the industry groups in my analysis, I calculate that 14.5% of college educated women aged 25-39 currently employed in the private sector were not working in their industry group in the year prior.

I capture the average industry-level (i) of employer-provided paid leave taking for a college educated mother of an infant during any given week of the child's first year of life in the absence of PFL policy by taking the share of working mothers of infants in an industry group i that are on paid maternity leave from the CPS-ASEC and dividing it by the labor force participation rate for college educated mothers of infants in that industry group from the ACS. This industry-level measure of paid leave  $PL_i$  is therefore calculated as follows:

$$PL_i = \frac{(\text{Moms of Infants on Paid Leave})_i}{(\text{Moms of Infant Last in Industry})_i}$$

This measure of paid leave taking exploits differences in actual leave taking during the first

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<sup>21</sup>I.e. the measure excludes Hawaii, California, New Jersey, Rhode Island, and New York.

<sup>22</sup>Any concern that this relatively long period will not accurately capture the pre-policy landscape of paid leave in a given policy state should be alleviated by panel (b) of appendix figure A3, which shows that rates of leave taking were relatively constant for college educated mothers of infants from 2000-19.

<sup>23</sup>While I would like to calculate a job-level measure of access to paid leave for the pre-policy implementation period for each of my treated states, the data are not sufficient to allow me to reliably do so. As shown in appendix figure A4, rates of leave-taking at the state level are much too noisy to draw any reliable conclusions, especially at the industry- or occupation-level.

<sup>24</sup>Author's calculations using data from the 2000-19 CPS-ASEC for college educated women aged 25-39 who currently work in the private sector

<sup>25</sup>Appendix section A.4 discusses and shows the results for the occupation group composition. The results of this analysis are very similar to those presented in the main paper and yield the same conclusions.

year of a child's life. Even if CPS respondents misreport other types of paid leave as paid parental leave (e.g. vacation or sick time), the measure identifies differences in paid leave *taking* across industries. In other words, an industry will show higher paid leave taking if new mothers are able and willing to take more paid leave through paid maternity leave, vacation, sick leave and other benefits combined, even if the access to paid maternity leave is technically higher in a different industry. The measure therefore captures the lived experience of new mothers in a given industry.

To ensure that the measure does not instead capture differences in the composition of workers across industries, I regress whether or not a woman takes paid leave in a given industry on individual worker characteristics, including whether or not a worker switched employers in the past year, their average weekly hours worked, marital status, and age, and obtain the residual values from this regression. These residuals capture the variation in paid leave taking that does not stem from differences in individual worker characteristics. Appendix figure A9 shows that my measure of paid leave taking and this adjusted measure are closely correlated. I show that my results are robust to this regression-adjustment in the appendix in section A.3.

My measure quantifies the share of mothers of an infant in any given industry that report being on paid maternity week. Assuming that the age of infants is uniformly distributed across the year (i.e. 25% of infant mothers have a baby who is younger than 3 months, 50% of infant mothers have a baby who is younger than 6 months, 75% of infant mothers have a baby who is younger than 9 months and so forth), the measure can be translated into an average length of paid leave taking: As a simple example assume that the industry measure of leave taking is 25%. This means that 25% of mothers of infants who worked in the industry prior to birth report paid leave. If we assume that employer-provided leave is available only consecutively beginning with birth<sup>26</sup>, this means that women in this industry are taking on average three months of paid leave. Because women who are leaving the labor force are not taking any paid leave, the industry average of leave taking is lower in industries with lower labor force participation of new mothers.

Panel 1 of Figure 1 shows the measure for each industry group in my analysis. Panel 2 translates the measure into the average length of paid leave in weeks.<sup>27</sup> The share of college educated mothers

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<sup>26</sup>While state PFL programs commonly allow new parents to take their leave at any point during their infant's first year of life, employer-provided leave as I am measuring is typically only available directly following the birth of an infant.

<sup>27</sup>See appendix figure A5 for an overview of both paid and all maternity leave by industry group.

of infants taking paid leave ranges from 1.5% in day cares to 10.6% in wholesale. While some of the rankings might seem counterintuitive at first glance, it is worth bearing in mind that first, leave taking is measured for college educated women and second, firm size is a strong predictor of employer-provided paid leave taking. For example, over 50% of mothers of infants employed in “Wholesale” work at firms with 100 or more employees, compared to less than 25% of mothers of infants employed in “Daycares”. 51% of mothers of infants employed in “Wholesale” work in leadership, administration, or as business specialists, compared to only 8% of those employed in “Daycares”.

**Figure 1 — Private Sector Paid Leave Taking by Industry Group**

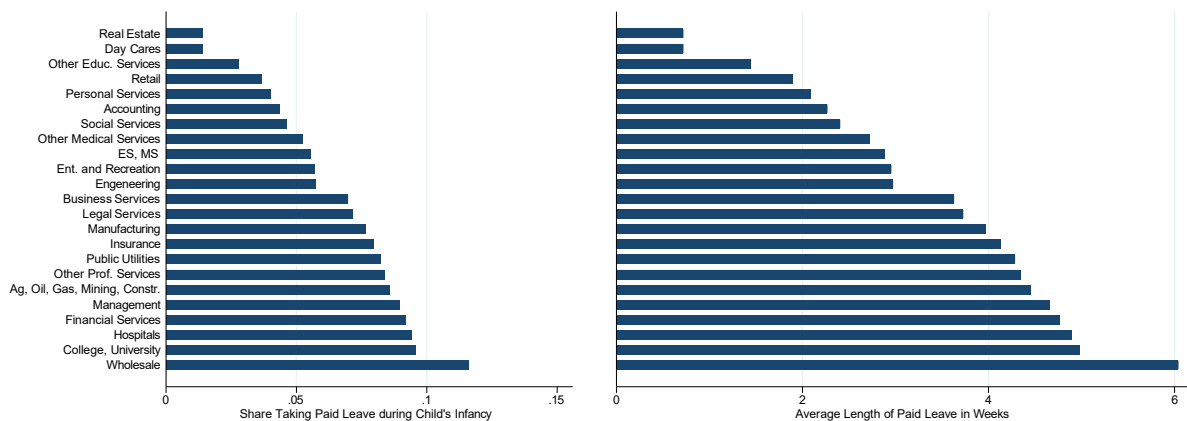


**Fig. 1** shows my measure of employer-paid leave taking calculated as the share of mothers of a child younger than one year old who are taking paid leave, based on data from the 2000-19 CPS for states without a TDI or PFL policy in place at the industry group level. The right panel translates this measure into an average length of paid leave taking in weeks.

I use annual individual level data from the American Community Survey (ACS) from 2000 to 2019 obtained through IPUMS (Ruggles et al., 2023) to look at the employment outcomes of college educated women. My analysis is based on 899,709 college educated women age 25-39 employed in the private sector. For each state and year, I calculate an index that represents the expected access to employer-provided paid leave based on the distribution of industries women work in. This industry-based employer-provided leave index,  $PL_{ys}$ , changes only as the result of industry group composition changes and is calculated as the average of my time- and state-invariant industry-level measure of paid leave taking, weighted by the share of college educated women age 25-39 in state

s and year  $y$  who work in the industry group  $i$ ,  $\lambda_{iys}$ .

$$PL_{ys} = \sum_{i=1}^I (\lambda_{iys} \times PL_i)$$

This measure is lower in states and years where more young college educated women are employed in industries with lower levels of employer-provided leave taking; it is higher in states and years where more young college educated women are employed in industries that are more family friendly with respect to paid leave.

Appendix figure A6 shows a summary of the outcome variable over time, separately for each of the policy states and college educated men and women. Women are employed in industry groups with average paid leave taking of 7.03%, whereas men are employed in industry groups with average paid leave taking of 7.3%. On average, my industry-based employer-provided leave index decreases throughout my period of study and does so more for women than for men. Again, this means that women are becoming increasingly employed in industries that offer less employer-provided paid leave.

## 5. Industry Group Composition

### 5.1. Empirical Strategy

I first exploit the state-level implementation of PFL to evaluate if it affected the industry group composition of employed, college educated women age 25-39 by testing if it affected my industry-based employer-provided leave index. While the staggered roll out of the PFL policy in California (2004), New Jersey (2009) and Rhode Island (2014) provides plausibly exogenous variation to estimate the causal impact of the policy on the industry composition, a classical two-way fixed-effects (TWFE) estimation that compares the change in treated states from before to after policy implementation to the change in comparison states suffers from potential bias if the treatment effect is heterogeneous or dynamic because newly treated states are compared also to already treated states (i.e. Baker et al., 2022; De Chaisemartin and d'Haultfoeuille, 2020; Sun and Abraham, 2021).

Instead, I follow Callaway and Sant'Anna (2021) to implement a staggered adoption framework.

I estimate separately the average treatment effect on the treated population (ATT) for each policy state with a simple difference-in-difference comparison where only never-treated states make up the comparison group. To satisfy the requirement of parallel trends in the absence of treatment, I residualize each state-level outcome using a vector of state-by-year controls  $X_{sy}$ , which includes controls for race, marital status, educational attainment, residence in a city with more than 100,000 inhabitants, and the state unemployment rate. Using the staggered adoption design, I estimate group effects which are the difference between the change in the regression-adjusted average measure of paid leave taking in a given year  $PL_y$  relative to the year prior to policy implementation  $PL_{py-1}$ , where  $T = 1$  identifies the policy states and  $C = 1$  the comparison group:

$$ATT(\text{Policy Year, Year}) = E[PL_y - PL_{py-1} | T = 1] - E[PL_{ty} - PL_{py-1} | C = 1]$$

A single post-period ATT is calculated by averaging the treatment effects of each post-policy year weighted by the number of states treated by a policy in any given year. Given the differences in the three PFL policies that are the subject of this analysis, I will also report and discuss a single post-period ATT for each treated state. This estimate can be interpreted as a standard difference-in-difference estimate where only one state is treated at a time and the comparison group only contains never-treated states.

I restrict my analyses to the six years prior and post policy implementation to make the results more easily comparable<sup>28</sup> and exclude states that have a TDI policy in place or implement a state PFL program in 2019.<sup>29</sup> I rely on the bootstrapping method by Callaway and Sant'Anna (2021) which clusters at the state level for inference.<sup>30</sup>

I test the validity of my results by reporting the results with and without state-by-year covariates, as well as for a restricted set of comparison states. I also estimate the impact of PFL on the industry composition of men to assess if changes in industry composition are driven by industry-specific demand shocks. The remaining threats to a causal identification are other contemporaneous shocks to the treated states that alter the industry distribution of women but not men. One possibility would be other state-level policies that improve the family-friendliness of jobs.

<sup>28</sup>Due to data availability, the pre-period for California only includes 4 years.

<sup>29</sup>I.e, my analysis excludes Hawaii and New York.

<sup>30</sup>All estimates were computed with the Stata package csdid.

I am unaware of any such policies in the treated states. Because the state policies are implemented in different years, it is unlikely that any other single unobserved shock drives the results.

## 5.2. Main Results

Table 2 shows the results for the analyses testing if state PFL policies impact the industry-group composition among college educated women age 25-39. Again, the outcome variable for this set of analyses is an industry-based employer-provided leave index that varies only with industry composition. The overall ATT is reported in the first row and the ATTs for each of the three treated states are reported below. Column (1) reports the results for the regression without individual and state controls and column (2) reports the results for the regression with the outcome variable residualized for those controls.

For all three policy states, I find that state PFL decreases the industry-based employer-provided leave index by 0.11-0.14 percentage points. This translates into a roughly two percent decrease. To put the results into context, consider the pre-policy (2003) industry group distribution of college educated, employed women in the private sector in California. *Ceteris paribus*, a 0.1 percentage point change would be the result of 30% of the women employed in the wholesale industry moving to the retail industry. In other words, we should reasonably only expect small changes, in line with the findings of this analysis.

I find effects of similar magnitude for each of the treated states; the impact is slightly larger than the ATT in Rhode Island and slightly smaller in New Jersey. Of the three states, New Jersey is the only state that requires workers to work for an employer with at least 50 employees. While I cannot test this directly, it is possible that this requirement might play a role in the more limited impact of the New Jersey PFL policy. All of my results are robust to the inclusion of state-by-year level controls.

**Table 2 — Impact of State PFL on Industry Composition of College Educated Women Aged 25-40**

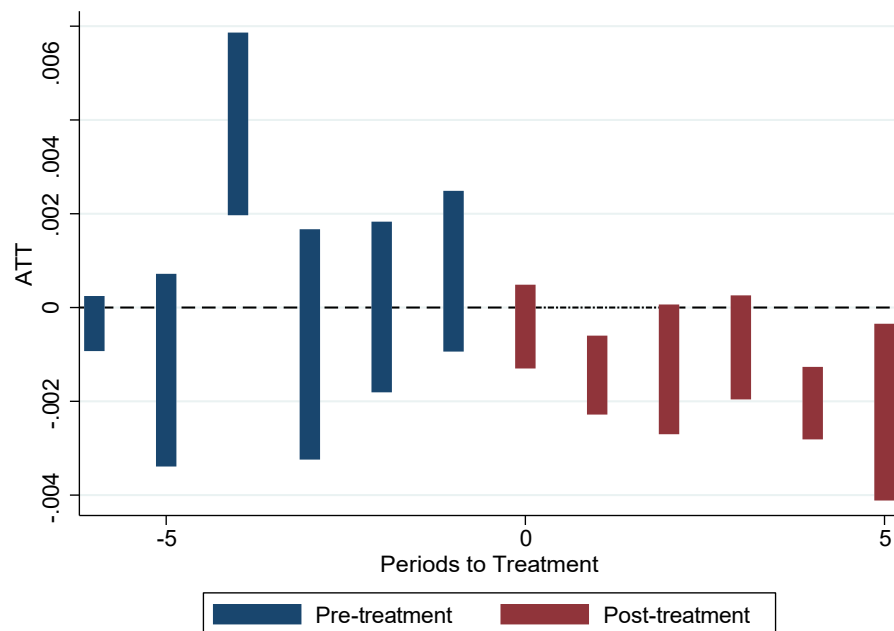
|                       | (1)                    | (2)                    | (3)                    |
|-----------------------|------------------------|------------------------|------------------------|
| ATT                   | -0.0012***<br>(0.0002) | -0.0014***<br>(0.0004) | -0.0011**<br>(0.0004)  |
| CA                    | -0.0010**<br>(0.0003)  | -0.0014***<br>(0.0003) | -0.0013***<br>(0.0003) |
| NJ                    | -0.0012***<br>(0.0002) | -0.0007**<br>(0.0002)  | -0.0005<br>(0.0004)    |
| RI                    | -0.0014***<br>(0.0002) | -0.0020***<br>(0.0002) | -0.0015***<br>(0.0004) |
| Controls              | No                     | Yes                    | Yes                    |
| Comparison States     | No Policy by 2019      | No Policy by 2019      | Policy after 2019      |
| Share Mothers         | 0.42                   | 0.42                   | 0.35                   |
| Mean Likelihood of PL | 0.069                  | 0.069                  | 0.070                  |
| N                     | 956                    | 956                    | 256                    |

*Notes:* Table 2 shows the point estimates and standard errors (in parentheses) for the impact of state PFL policy on the industry group level access to paid leave with a staggered adoption design. The dependent variable is calculated as the share of infant mothers within a given industry group that report taking paid leave. All regressions include state and year fixed effects and control for marital status, race, educational attainment, city residence, and state unemployment rate. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

In column (3) I repeat the specifications of column (2) but restrict the comparison states to those states that implement a state PFL policy after my period of analysis. Note that at the date of writing, columns (1) and (2) technically use never treated and not yet treated states as the comparison states and column (3) uses not yet treated states as the comparison states. However, because my analyses end in the year 2019, all comparison states in the analysis are “never treated” for the purpose of the econometric analysis. Column (3) can be interpreted as a robustness check that tests if a violation of the parallel counterfactual trends assumption required to uncover a causal estimate with a difference-in-differences or staggered adoption approach might be violated: If the results are substantially different for the restricted comparison group, this might suggest that states that implement PFL programs are inherently more accommodating for new mothers, and thus see differential trends in young women’s career choices over time. My results are robust to restricting the comparison states to states that go on to implement PFL following my period of analysis. Differential trends in the industry composition of college educated women across treated and comparison states do not appear to drive my results.

I further validate that differential counterfactual trends are not the driver of my results by

**Figure 2 — Event-Study Results for Impact of State PFL on Industry Group Composition**



**(a) ATT**

Fig. 2 shows the event-study style point estimates and 95% confidence intervals showing the impact of state PFL on the average occupation group level measure of access to paid leave for the combined analysis in each year relative to the year prior to policy implementation.

estimating an event-study framework that for each year separately provides the point estimates and 95% confidence intervals relative to the year prior to policy implementation. A visual presentation of the event-study results for the combined ATT for all three policy states is shown in Figure 2. Appendix figure A7 also shows the dynamics separately for each policy state. I observe no clear pre-trends, which further strengthens the findings of this study.

As discussed in section 4, the goal of my analysis is to exploit pre-policy differences in access to paid leave that are not the result of composition difference. For example, a job may see less paid leave taking if many women in this job are part-time employees or have had short employment tenures. To account for this, I residualize my measure of paid leave taking by estimating a linear regression of the industry group level measure of paid leave taking on indicators for whether or not a women works full time, has switched employers in the last year, her average weekly hours, marital status and age. I then retain the residuals for any industry group  $i$  as my new outcome variable.

Table A4 shows the results of my main analysis of across industry group composition changes using this regression-adjusted measure of paid leave taking as the outcome variable. The results are very similar to those presented in Table 2 and do not affect any of the take-aways.

### **5.3. Results by Age Group, Marital Status, and Motherhood Status**

Tables 3, 4, and 5 test for the heterogeneity of results by looking at whether different subgroups - women at different ages, married and unmarried women, and mothers and childless women - see similar changes in industry composition as I find for the overall impact of the state PFL policies. Each of the tables shows these overall results in the first column.

For California and Rhode Island, I find that younger women, and, therefore not surprisingly, unmarried and childless women, experience a slightly larger decrease in the average industry group level measure of paid leave taking, relative to their older and married counterparts who have children. For both states, I see decreases in the outcome variable for women in the 25-29, unmarried women, and childless women that are about twice as large as the effect for all women age 25-39. This result indicates that the PFL policies do in fact have an impact on early-career choices, rather than just impacting the job selection of mothers who are eligible for paid leave. However, I see the opposite pattern of results for New Jersey. Again, while I cannot test for this, it is plausible that some of the differences in results may be explained by the differences in the policy and requirements to be eligible for PFL.

**Table 3 — Impact of State PFL on Industry Group Composition on Women by Age Group**

|                       | Women 25-39            | Women 25-29            | Women 30-34          | Women 35-39            |
|-----------------------|------------------------|------------------------|----------------------|------------------------|
| ATT                   | -0.0014***<br>(0.0002) | -0.0022<br>(0.0015)    | -0.0006*<br>(0.0002) | -0.0008<br>(0.0009)    |
| CA                    | -0.0014***<br>(0.0003) | -0.0024***<br>(0.0005) | -0.0005<br>(0.0006)  | -0.0007<br>(0.0003)    |
| NJ                    | -0.0007**<br>(0.0002)  | 0.0012*<br>(0.0005)    | -0.0007*<br>(0.0004) | -0.0026***<br>(0.0004) |
| RI                    | -0.0020***<br>(0.0002) | -0.0053***<br>(0.0004) | -0.0005<br>(0.0004)  | 0.0009*<br>(0.0004)    |
| Share Mothers         | 0.42                   | 0.17                   | 0.46                 | 0.65                   |
| Mean Likelihood of PL | 0.069                  | 0.067                  | 0.069                | 0.069                  |
| N                     | 956                    | 956                    | 956                  | 956                    |

*Notes:* Table 3 shows the point estimates and standard errors (in parentheses) for the impact of state PFL policy on the industry group level access to paid leave with a staggered adoption design. The dependent variable is calculated as the share of infant mothers within a given industry group that report taking paid leave. All regressions include state and year fixed effects and control for marital status, race, educational attainment, city residence, and state unemployment rate. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

**Table 4 — Impact of State PFL on Industry Group Composition of Women by Marital Status**

|                       | Women 25-39            | Married                | Unmarried              |
|-----------------------|------------------------|------------------------|------------------------|
| ATT                   | -0.0014***<br>(0.0002) | -0.0004<br>(0.0004)    | -0.0022***<br>(0.0005) |
| CA                    | -0.0014***<br>(0.0003) | -0.0001<br>(0.0004)    | -0.0027***<br>(0.0003) |
| NJ                    | -0.0007**<br>(0.0002)  | -0.0002<br>(0.0003)    | -0.0012*<br>(0.0005)   |
| RI                    | -0.0020***<br>(0.0002) | -0.0012***<br>(0.0003) | -0.0028***<br>(0.0004) |
| Share Mothers         | 0.42                   | 0.62                   | 0.17                   |
| Mean Likelihood of PL | 0.069                  | 0.069                  | 0.067                  |
| N                     | 956                    | 956                    | 956                    |

*Notes:* Table 4 shows the point estimates and standard errors (in parentheses) for the impact of state PFL policy on the industry group level access to paid leave with a staggered adoption design. The dependent variable is calculated as the share of infant mothers within a given industry group that report taking paid leave. All regressions include state and year fixed effects and control for race, educational attainment, city residence, and state unemployment rate. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

**Table 5 — Impact of State PFL on Industry Group Composition of Women by Motherhood Status**

|                       | Women 25-39            | Childless              | Mothers                |
|-----------------------|------------------------|------------------------|------------------------|
| ATT                   | -0.0014***<br>(0.0002) | -0.0020<br>(0.0011)    | -0.0006<br>(0.0007)    |
| CA                    | -0.0014***<br>(0.0003) | -0.0017***<br>(0.0004) | -0.0004<br>(0.0005)    |
| NJ                    | -0.0007**<br>(0.0002)  | 0.0001<br>(0.0004)     | -0.0021***<br>(0.0003) |
| RI                    | -0.0020***<br>(0.0002) | -0.0044***<br>(0.0003) | 0.0005<br>(0.0004)     |
| Share Mothers         | 0.42                   | 0                      | 1                      |
| Mean Likelihood of PL | 0.070                  | 0.070                  | 0.070                  |
| N                     | 956                    | 956                    | 956                    |

*Notes:* Table 5 shows the point estimates and standard errors (in parentheses) for the impact of state PFL policy on the industry group level access to paid leave with a staggered adoption design. The dependent variable is calculated as the share of infant mothers within a given industry group that report taking paid leave. All regressions include state and year fixed effects and control for marital status, race, educational attainment, city residence, and state unemployment rate. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

#### 5.4. Impact of State PFL on the Industry Group Composition of Men

As discussed in section 2, state PFL policies also allow men to take paid leave during the first year of a child's life or for one's own or a family member's medical conditions. However, given the additional burden of childbirth on mothers, it is immediately clear that the amenity of paid leave is likely smaller for men, in particular when pay replacement is less than 100%. Consequently, as discussed previously, take up is much lower for men than for women: Relative to the five week increase in leave taking following PFL implementation for new mothers, Baum and Ruhm (2016) find an increase in leave taking of only 2-3 days for new fathers. Thus, it seems unlikely that young men value paid leave as a job amenity in a way that would sway their career choices. While I expect that men might respond to PFL in the same direction as women, effects of similar magnitude would suggest that trends in the industry distribution that are correlated with the policy adoption, but not because of the policy adoption, are driving the results for women. I test this by running the same industry group composition analysis as presented for women in Table 2. Table 6 shows the results.

**Table 6 — Impact of State PFL on Industry Composition of College Educated Men Aged 25-39**

|                       | (1)                    | (2)                    | (3)                 |
|-----------------------|------------------------|------------------------|---------------------|
| ATT                   | -0.0010***<br>(0.0003) | -0.0006***<br>(0.0003) | -0.0007<br>(0.0006) |
| CA                    | -0.0013***<br>(0.0002) | -0.0009***<br>(0.0002) | -0.0007<br>(0.0005) |
| NJ                    | -0.0005<br>(0.0003)    | -0.0005<br>(0.0003)    | -0.0014<br>(0.0008) |
| RI                    | -0.0012***<br>(0.0002) | -0.0005*<br>(0.0002)   | 0.0000<br>(0.0005)  |
| Controls              | No                     | Yes                    | Yes                 |
| Comparison States     | No Policy by 2019      | No Policy by 2019      | Policy after 2019   |
| Share Fathers         | 0.40                   | 0.40                   | 0.35                |
| Mean Likelihood of PL | 0.073                  | 0.073                  | 0.073               |
| N                     | 956                    | 956                    | 256                 |

*Notes:* Table 6 shows the point estimates and standard errors (in parentheses) for the impact of state PFL policy on the occupation-group level access to paid leave with a staggered adoption design. The dependent variable is calculated as the share of infant mothers within a given industry group that report taking paid leave. All regressions include state and year fixed effects and control for marital status, race, educational attainment, city residence, and state unemployment rate. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

The overall pattern of a decrease in the industry-based employer-provided leave index that I documented for women persists. However, the decrease in the outcome variable is not robust to a different set of comparison states, perhaps indicating that young men see different trends in industry composition in different states around the time of the PFL implementation. Also, the magnitude of effects is less than one half the size of effects for women, with a 0.06 percentage point decrease in my preferred specification (column 2).

## 6. Supplementary Analysis: Within Occupation Composition

My main analyses provide evidence that women shift towards industry groups that have lower access to employer-provided leave in the absence of PFL. Given that different jobs within an industry group also vary in terms of the paid leave provided by the employer, women are likely to also shift jobs within an industry group in response to PFL. I exploit the fact that public sector, private sector, and self-employed workers face very different access to paid leave, even in jobs that require the same training. PFL therefore likely affects the relative attractiveness of different types of employment within a given occupation. I test this hypothesis by testing whether state PFL leads to changes in the within occupation composition of the different types of employment.

### 6.1. Empirical Strategy

To retain a large enough sample, I focus on the three largest occupation groups that have substantial private and public sector employment<sup>31</sup>: Managers and CEOs, Business and Financial Analysts and Specialists, and Administrative occupations. For each of these occupation groups, I calculate the average measure paid leave taking as described in section 4 for self-employment, private employment (for profit and non-profit), and public employment (local or state government). Figure 3 shows the differences in paid leave taking by type of employment for the three occupation groups. As expected, it is the lowest for self-employed mothers of infants in all three occupation groups. It is highest for private employment for all three occupation groups. Managers enjoy higher levels of paid leave taking than business specialists who enjoy higher levels of paid leave taking than administrative employees. Further, the difference between paid leave taking in private and public employment is much bigger for managers than for business specialists and administrative employees.

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<sup>31</sup>Two of the largest occupation groups for young, college educated women, Elementary and Middle School teachers and medical occupations have less opportunities for different types of employment and are thus not considered for this analysis.

**Figure 3 — Within Occupation Differences in Employer-Provided Paid Leave Taking**



**Fig. 3** shows my measure of the average length of paid leave calculated as described in section 4 for mothers of infants last employed in management, business specialist, or administrative occupations who are self-employment, or work for private or public employers.

The implementation of PFL does not lead to universal access of paid leave for women in all types of employment. Women employed in the private sector will experience near universal access to paid leave following the implementation of PFL. Women employed in the public sector will likely see near universal access to paid leave, contingent on their employer selecting into the state program.<sup>32</sup>

<sup>32</sup>Recall that in RI all public employers are covered by the PFL policy, whereas in CA and NJ they can opt in.

Self-employed women can opt into the state PFL program by contributing to the program; however, coverage among the self-employed is low. Therefore, most self-employed women do not see access to paid leave increase as the result of the implementation of state PFL.

I expect that the differences in private and public sector access to paid leave in the absence of policy will lead to differential increases in the family friendliness of jobs in those sectors as the result of state PFL. For women employed in management occupations, public sector employees should see much larger increases in access to paid leave than private sector employees. For women employed in business specialty occupations, public sector employees should see somewhat larger increases in access to paid leave than private sector employees. In other words, the attractiveness of public sector relative to private sector jobs should increase for managers and less so for business specialists. For women employed in administrative occupations, access to paid leave is most similar across private and public sector employees in the absence of PFL. Therefore, implementation of the state program should lead to similar increases in access to paid leave and should not change the relative attractiveness of private and public sector jobs.

I use the log share of college educated women age 25-39 with known employment history in a given occupation group as the outcome variable. I rely on the same staggered adoption framework as discussed in section 5.1 and again restrict my analyses to six years pre- and post-policy implementation.

## **6.2. Results**

Figure 4 shows the point estimates and 95% confidence intervals for this analysis. For each regression, the figure shows the overall ATT as well as the ATT for California, New Jersey, and Rhode Island separately. The results of this analysis provide suggestive evidence of women shifting into types of employment for which the job amenity increases relatively more: Within management occupations, I observe a relatively consistent increase in public sector employment, apparently offset by a small decrease in private sector employment. Within business specialist occupations, I do not find this increase in public sector employment. Within administrative occupations, I observe a decrease in public sector employment. These findings are consistent with public sector employment becoming relatively more attractive when the policy leads to the largest increase in job amenity (management occupations), and becoming no more attractive when the

policy impacts access to paid leave in a similar manner for private and public sector jobs (administrative occupations). These results suggests that state PFL policy implementation may in fact sway women towards jobs that see larger increases in access to paid leave within a given occupation group.

**Figure 4 — Impact of State PFL on the Within Occupation Employment Composition**

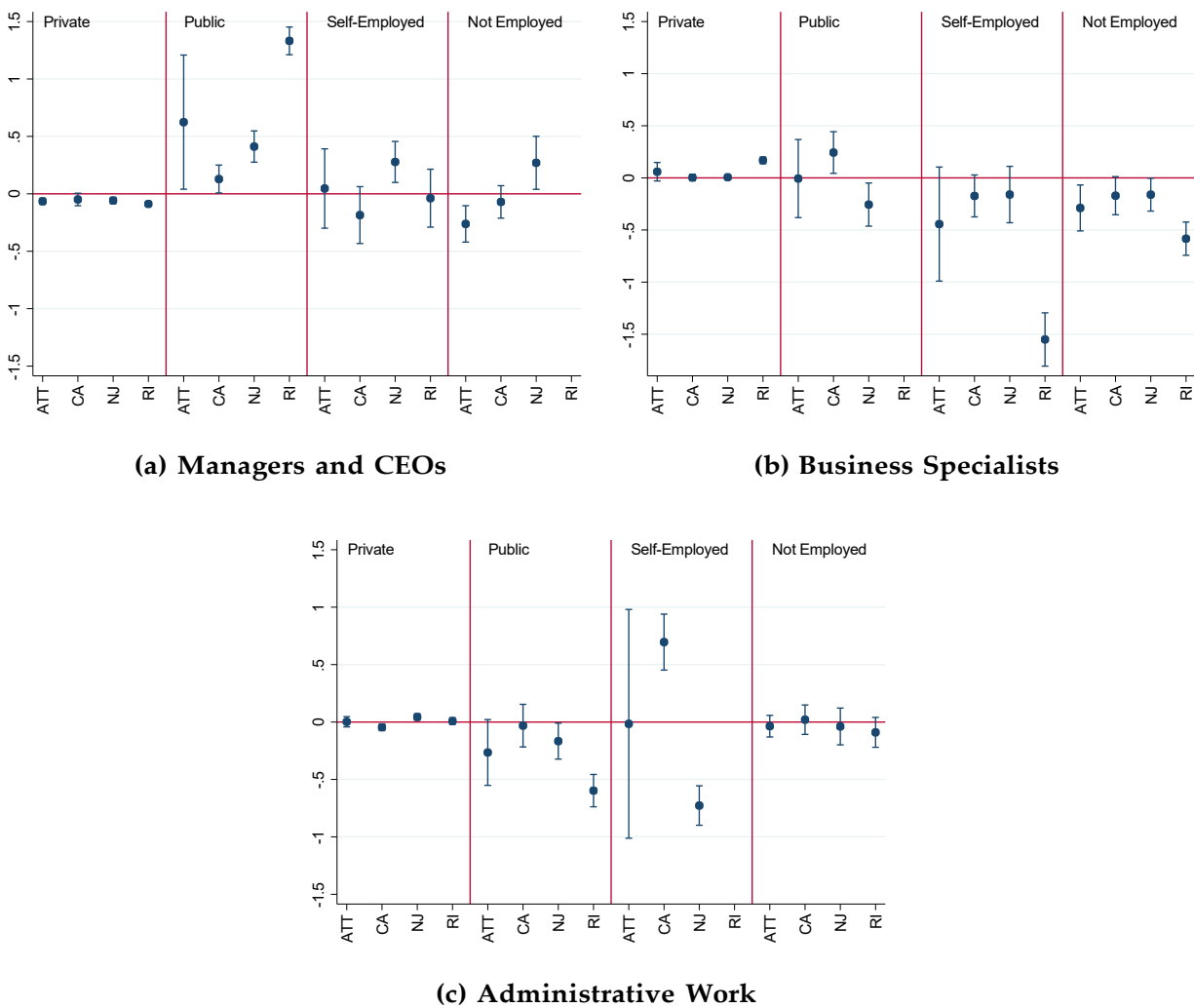


Fig. 4 shows the point estimates and 95% confidence intervals for the impact of a new state paid parental leave on the log share of college educated women age 25-40 with known employment or last employment in a given occupation group.

## 7. Conclusion

If young, college educated women consider the cost of having a child in the future at a given job when making early career decisions, family friendly policies have the potential to impact those choices. In this paper, I exploit the implementation of state paid family leave policies (PFL) in California (2004), New Jersey (2009), and Rhode Island (2014) to test whether state PFL shifts college educated women into careers with lower pre-policy levels of employer-provided paid leave taking. I use difference-in-difference and staggered adoption designs and test if state PFL affects the pre-policy average measure of paid leave taking for college educated women age 25-39.

I show that state PFL policies change the industry group composition towards jobs with a two percent lower industry-based employer-provided leave index in the absence of PFL. My results are robust to the inclusion of controls that vary at the state and year level, and robust to a different comparison group. I also find suggestive evidence that within an occupation group, state PFL policy implementation sways women towards the type of employers that see a disproportionate increase in the access to paid leave. Together, my analyses suggest that paid leave is a job amenity that matters for college educated women even before they enter motherhood in a way that has the potential to impact their career choices.

I repeat my analyses for young, college educated men and show that the effect of state PFL policy, which applies equally to new mothers and fathers, is only statistically significant in select cases and in those cases decreases the average industry group level measure of paid leave taking much less in magnitude. In other words, state PFL policy does not impact the job selection of college educated men in the same way as for their female counterparts, which helps rule out alternative explanations such as industry-specific demand shocks.

While my study is able to mainly investigate the role of policy in the industry (or occupation) composition, its findings can also be applied to within job distributions: Young women disproportionately value family friendly job amenities, and this impacts their career and job choices. Consequently, they play a role in the male-female earnings gap. Further, policy can play a role in swaying women towards jobs that are less likely to provide a certain amenity in its absence, even if the policy provides a relatively small benefit.

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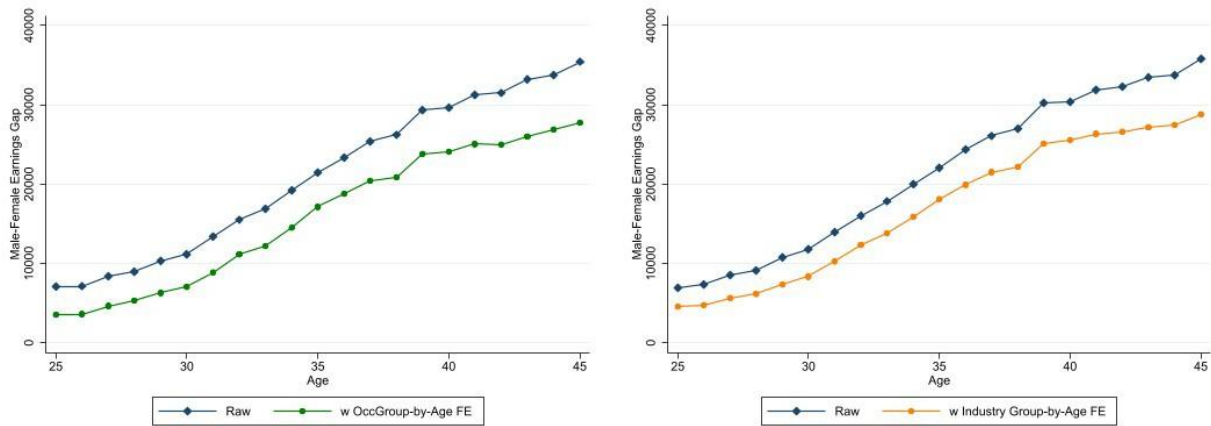
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## A. Online Appendix

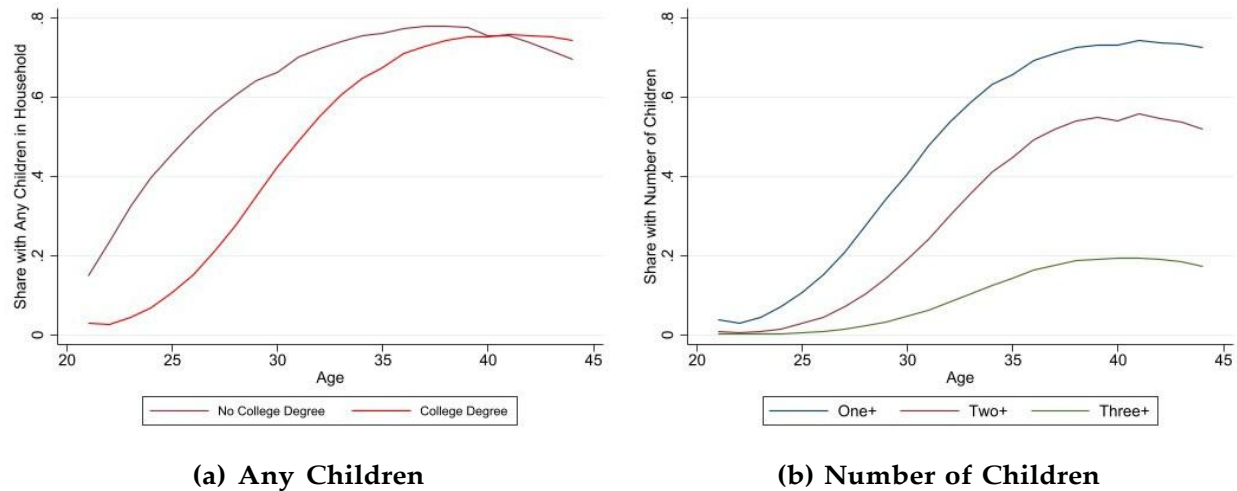
### A.1. Figures

Figure A1 — Male-Female Wage Gap and Occupational and Industry Segregation



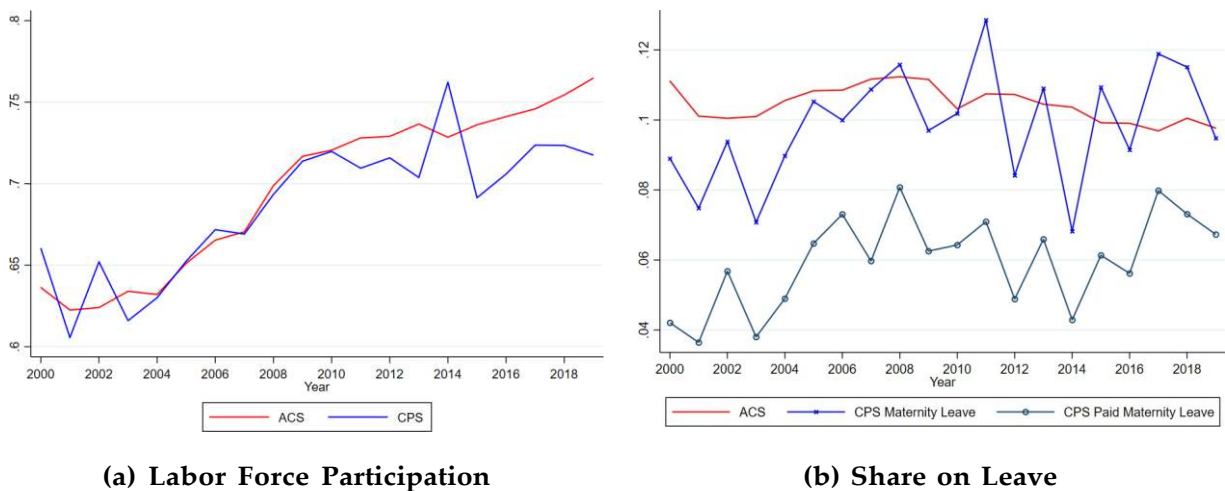
**Notes:** Figure A1 shows the share of college educated men and women who have at least one own child ages 0 to 18 in their household, by age. At age 25, occupation group selection explains 50% of the wage gap, and at age 30 it explains 37%. Industry group selection can explain 34 and 30% respectively at those ages. Wage gap is calculated for full-time employed workers only.

**Figure A2 – Fertility by Age of College Educated Women**



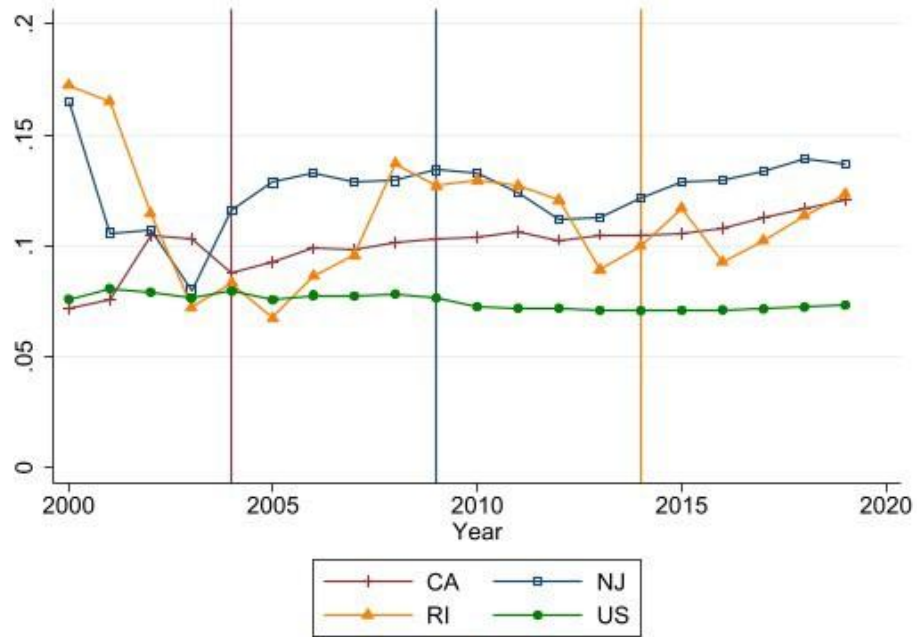
**Notes:** Figure A2 shows the share of women with and without a college degree who report having any child of their own in their household, by age, in panel a). Panel b) focuses on college educated women and displays the share with one or more, two or more, or three or more children, by age.

**Figure A3 – Labor Market Status of College Educated Mothers of Infants over Time**



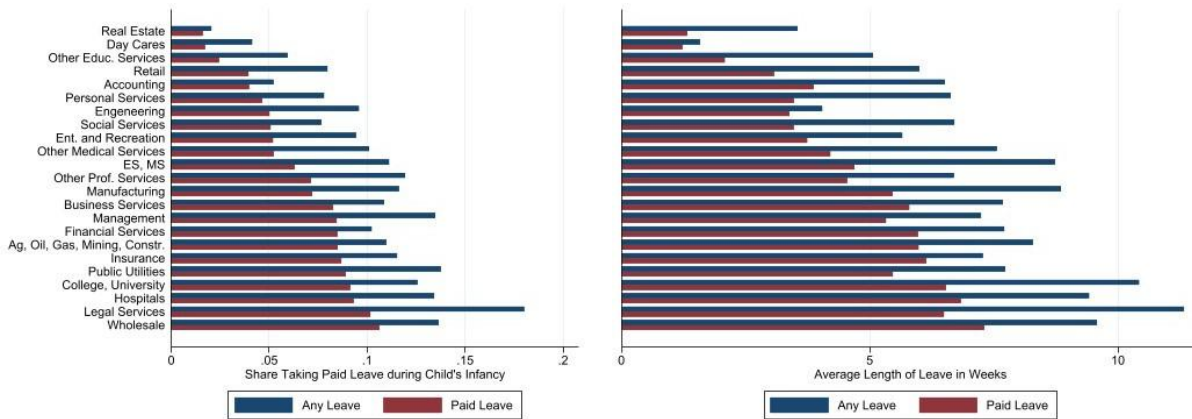
**Notes:** Figure A3 shows the share of mothers of infants younger than one year old that report being in the labor force in panel (a) and the share of mothers of infants who report being absent from their job using data from the ACS and the share of mothers of infants who report being on paid or unpaid maternity leave using data from the CPS-ASEC in panel (b).

**Figure A4 — Share of Mothers of Infants on Paid Leave by State**



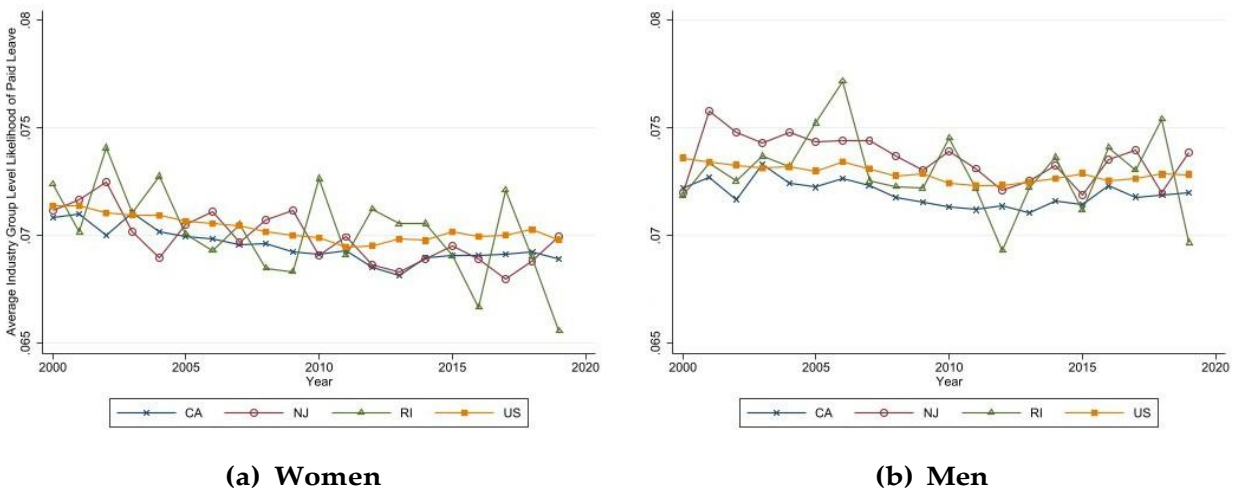
*Notes:* Figure A4 shows the share of mothers of infants younger than one year old that report being on paid leave, calculated from CPS-ASEC data. Vertical lines indicate the implementation of PFL programs in each of the three treated states. The US average excludes CA, NJ, and RI.

**Figure A5 — Private Sector Paid and Unpaid Leave Taking by Industry Group**



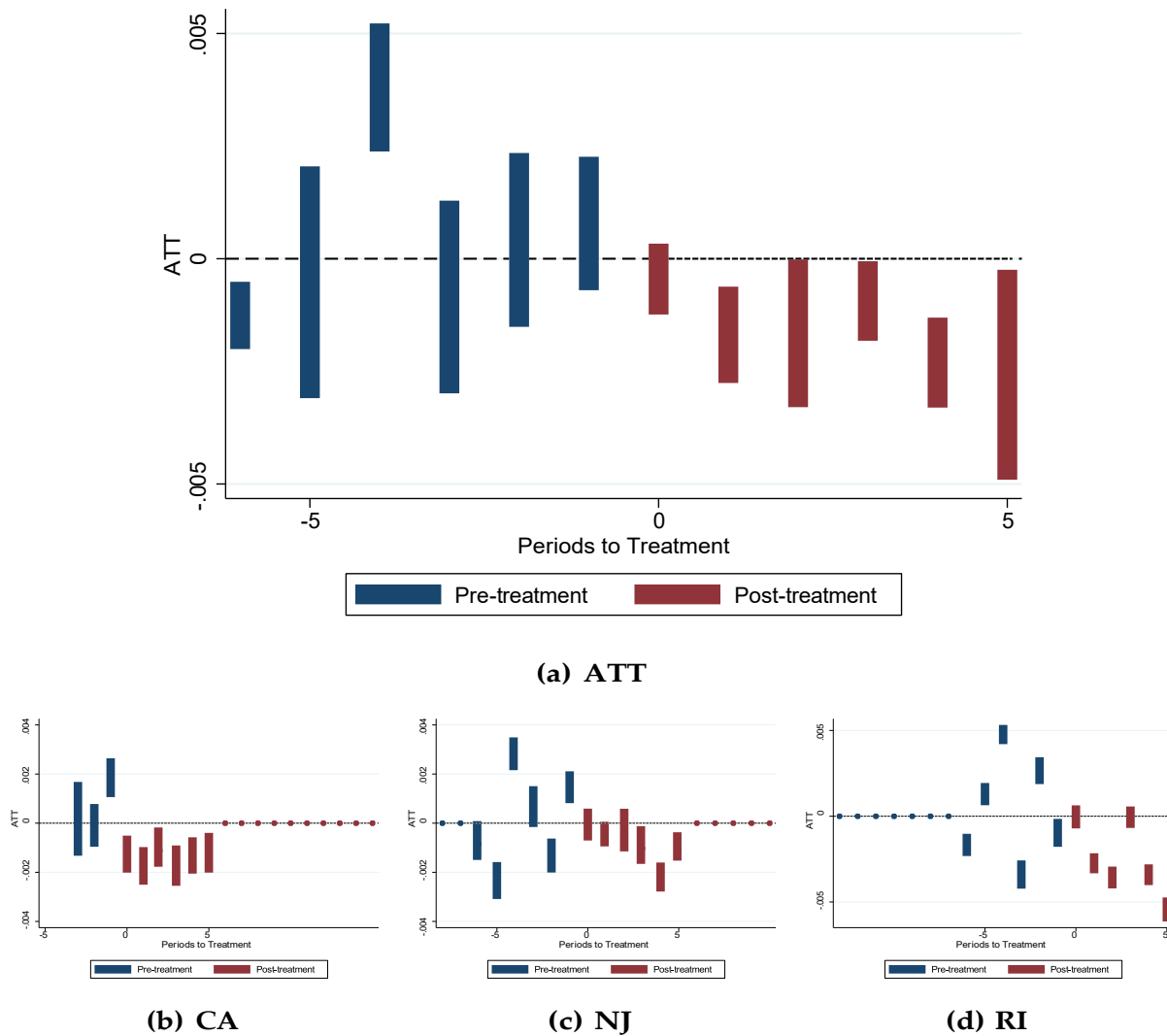
**Notes:** Figure A5 shows my measure of pre-policy access to paid and unpaid maternity leave calculated as the share of mothers of a child younger than one year old who are taking paid leave at a given point in time, based on data from the 2000-19 CPS for states without a TDI or PFL policy in place at the industry group level. The right panel translates this measure into an average length of leave taking in weeks for those taking leave and does not incorporate industry group differences in labor force participation for mothers of infants.

**Figure A6 — Summary of Industry Group Level Average Measure of Paid Leave Taking**



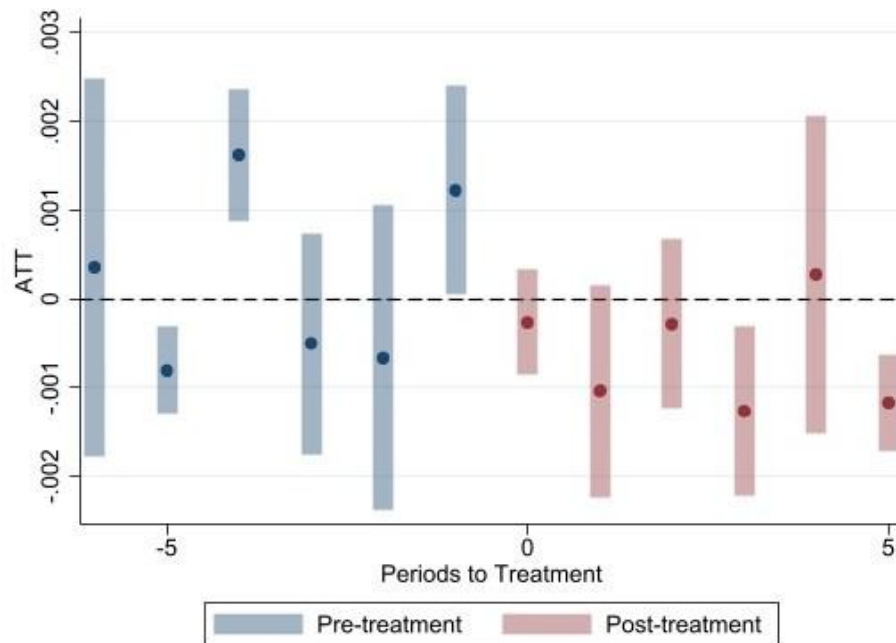
**Notes:** Figure A6 shows the average of my measure of pre-policy access to paid maternity leave calculated as the share of mothers of a child younger than one year old who are taking paid leave at a given point in time, based on data from the 2000-19 CPS for states without a TDI or PFL policy in place. The measure of paid leave taking is constant for each industry group across years and states. Differences in the averages shown in this figure come from differences in the industry group composition of college educated women and men age 25-39.

**Figure A7 — Event-Study Results for Impact of State PFL on Industry Group Composition of College Educated Women Age 25-39**



**Notes:** Figure A7 shows the event-study style point estimates and 95% confidence intervals showing the impact of state PFL on the average industry group level measure of access to paid leave for the combined analysis and separate for each state in each year relative to the year prior to policy implementation.

**Figure A8 — Event-Study Results for Impact of State PFL on Industry Group Composition of College Educated Men Age 25-39**



**(a) ATT**

*Notes:* Figure A8 shows the event-study style point estimates and 95% confidence intervals showing the impact of state PFL on the average industry group level measure of access to paid leave for the combined analysis in each year relative to the year prior to policy implementation.

## A.2. Tables

**Table A1 — U.S. State Paid Family Leave Laws**

| State | Date Effective | Length   | Max Pay Replacem. | Job Protection                      | Employer Req.          | Employee Req.                                                                                                      |
|-------|----------------|----------|-------------------|-------------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------|
| CA    | 2004           | 6 weeks  | 55%               | Not included                        | Private                | Earned \$300+ in CA in baseline period                                                                             |
| NJ    | July 2009      | 6 weeks  | 66%               | Included                            | Private, 50+ employees | Worked at least 20 weeks in NJ                                                                                     |
| RI    | 2014           | 4 weeks  | 60%               | Not included                        | Universal              | Earned \$11,520+ in RI in baseline period                                                                          |
| NY    | Jan 2018       | 8 weeks  | 50%               | Included                            | Private                | Work 26 weeks in NY if 20+ h/week, 175 days in NY if less h/week                                                   |
| WA    | Jan 2020       | 12 weeks | 90%               | Not included                        | Universal              | 820 hours of work in WA in baseline period                                                                         |
| D.C.  | July 2020      | 8 weeks  | 90%               | Not included                        | Private                | Currently employed in D.C.                                                                                         |
| MA    | Jan 2021       | 12 weeks | 50%               | Included                            | Universal              | Anyone eligible for UI                                                                                             |
| CT    | Jan 2022       | 12 weeks | 95%               | Not Included                        | Private                | Earned \$2,325+ in one quarter in the previous year, or 12 weeks employment with qualified employer prior to leave |
| OR    | Sept 2023      | 12 weeks | \$1,523/W         | Included                            | Universal              | Currently employed, earned \$1,000+ in year prior                                                                  |
| NH    | Jan 2023       | 6 weeks  | 60%               | Not Included                        | Universal              | Employed in NH                                                                                                     |
| CO    | Jan 2024       | 12 weeks | 90%               | Not included                        | Private                | Earned \$2,500 in baseline period in CO                                                                            |
| MD    | Jan 2026       | 12 weeks | \$1,000/W         | Included                            | Private                | 680 hours in MD in previous year                                                                                   |
| DE    | Jan 2026       | 12 weeks | 80%               | Not included                        | 10+ Employees          | Worked for DE employer for at least 12 months, 1,250h in past year.                                                |
| ME    | Jan 2026       | 12 weeks | 90%               | Included if tenure on job 120+ days | Private                | Earned \$6,622+ in base period                                                                                     |
| MN    | Jan 2026       | 12 weeks | 90%               | Included                            | Universal              | Earned 5.3%+ of state's average annual wage                                                                        |

*Notes:* Information shown in the table above comes from each state's PFL program website. Information is based on the program specifics as of when the program was first implemented. Replacement rates are lower for individuals with higher incomes. Maximum thresholds for income replacement are not shown. In cases where the state law only applies to private employers, public employers can select into the program on a voluntary basis. Self-employed are covered on a voluntary, opt-in basis in all states, federal employees are not covered. Baseline period is typically highest four of the previous five quarters prior to begin of leave

**Table A2 — Characteristics of Mothers of Infants by Labor Market Status**

|                         | OLF    | Working | Employed,<br>Unpaid Leave | Employed,<br>Paid Leave |
|-------------------------|--------|---------|---------------------------|-------------------------|
| Share of Infant Mothers | 41%    | 53%     | 3%                        | 3%                      |
| Age                     | 27.7   | 29.7    | 29.4                      | 31.4                    |
| Own Children in HH      | 1.95   | 1.96    | 1.95                      | 1.84                    |
| College Degree          | 0.256  | 0.400   | 0.395                     | 0.641                   |
| Income                  | 12,135 | 29,791  | 27,939                    | 48,578                  |
| Family Income           | 53,751 | 74,570  | 76,302                    | 106,165                 |
| Switched Emp in Last Y  | 0.118  | 0.121   | 0.142                     | 0.072                   |
| Less than 10 Employees  | 0.193  | 0.160   | 0.143                     | 0.053                   |
| 10-99 Employees         | 0.248  | 0.213   | 0.208                     | 0.136                   |
| 100-499 Employees       | 0.117  | 0.136   | 0.155                     | 0.155                   |
| 500+ Employees          | 0.443  | 0.491   | 0.494                     | 0.655                   |
| Observations            | 15,644 | 20,054  | 1,048                     | 1,093                   |

**Notes:** Table A2 summarizes the characteristics of mothers of infants younger than one year old by their labor force status calculated using data from the annual CPS-ASEC for all states that do not have a PFL or TDI program in place for 2000-19.

**Table A3 — Industry Groups**

| Industry Group                | Share of College<br>Educated Women<br>Age 25-40 | Labor Force<br>Part. Rate<br>Moms of Infants | N Moms<br>of Infants<br>in CPS | Share Employed<br>Moms of Infants<br>on Paid Leave | Likelihood<br>of Access to<br>Paid Leave |
|-------------------------------|-------------------------------------------------|----------------------------------------------|--------------------------------|----------------------------------------------------|------------------------------------------|
| Retail                        | 0.12                                            | 0.67                                         | 687                            | 0.058                                              | 0.039                                    |
| Hospitals                     | 0.11                                            | 0.88                                         | 1215                           | 0.107                                              | 0.093                                    |
| Other Medical Services        | 0.09                                            | 0.82                                         | 895                            | 0.064                                              | 0.052                                    |
| Manufacturing                 | 0.08                                            | 0.78                                         | 684                            | 0.093                                              | 0.072                                    |
| Business Services             | 0.07                                            | 0.72                                         | 450                            | 0.114                                              | 0.083                                    |
| Financial Services            | 0.06                                            | 0.76                                         | 524                            | 0.110                                              | 0.085                                    |
| Elementary & Middle Schools   | 0.06                                            | 0.69                                         | 394                            | 0.090                                              | 0.063                                    |
| Other Prof. Services          | 0.05                                            | 0.73                                         | 288                            | 0.098                                              | 0.071                                    |
| Public Utilities              | 0.04                                            | 0.77                                         | 285                            | 0.115                                              | 0.089                                    |
| College, University           | 0.04                                            | 0.71                                         | 243                            | 0.129                                              | 0.091                                    |
| Insurance                     | 0.03                                            | 0.80                                         | 308                            | 0.107                                              | 0.087                                    |
| Social Services               | 0.03                                            | 0.76                                         | 217                            | 0.067                                              | 0.051                                    |
| Legal Services                | 0.03                                            | 0.79                                         | 192                            | 0.128                                              | 0.102                                    |
| Wholesale                     | 0.02                                            | 0.75                                         | 186                            | 0.140                                              | 0.106                                    |
| Personal Services             | 0.02                                            | 0.66                                         | 129                            | 0.071                                              | 0.046                                    |
| Ag, Oil, Gas, Mining, Constr. | 0.02                                            | 0.75                                         | 172                            | 0.114                                              | 0.085                                    |
| Management                    | 0.02                                            | 0.73                                         | 110                            | 0.115                                              | 0.084                                    |
| Day Cares                     | 0.02                                            | 0.59                                         | 143                            | 0.029                                              | 0.017                                    |
| Entertainment & Recreation    | 0.02                                            | 0.70                                         | 109                            | 0.076                                              | 0.052                                    |
| Accounting                    | 0.02                                            | 0.77                                         | 117                            | 0.052                                              | 0.040                                    |
| Real Estate                   | 0.02                                            | 0.71                                         | 95                             | 0.023                                              | 0.016                                    |
| Engineering                   | 0.02                                            | 0.73                                         | 111                            | 0.068                                              | 0.050                                    |
| Other Educ. Services          | 0.01                                            | 0.66                                         | 82                             | 0.038                                              | 0.024                                    |

**Notes:** Table A3 provides a summary of the industry groups used to construct the job level likelihood of access to paid leave measure used in my main analyses. The average industry group likelihood of access to paid leave is calculated as the share of employed mothers of infants on paid leave from the CPS, divided by the labor force participation rate of mothers of infants from the ACS.

### A.3. Regression-Adjusted Measure of Paid Leave Taking

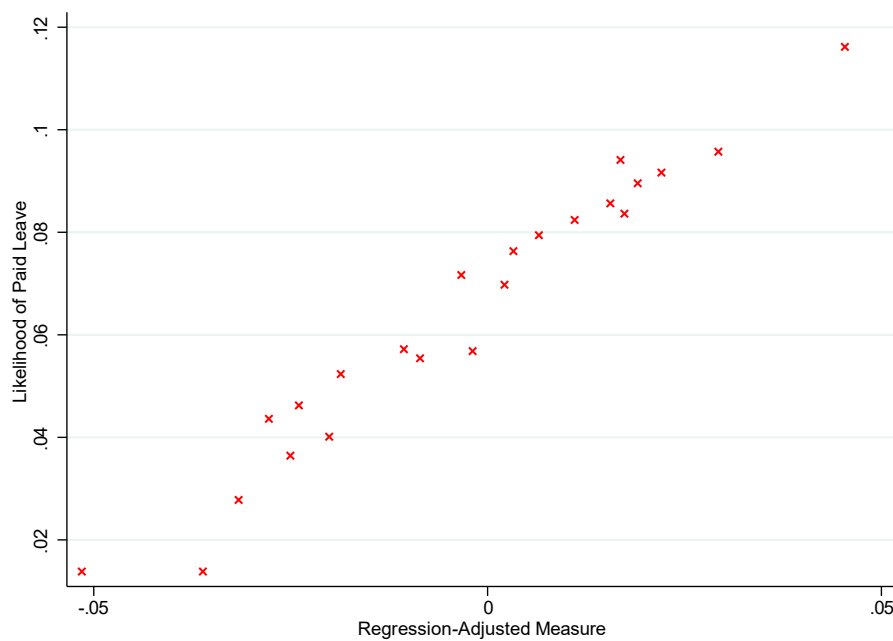
As described in section 4, the intention of the measure of paid leave taking is to capture differences across different jobs in the availability of paid leave and the take-up of paid leave. The measure is not supposed to capture differences in the job level measure of paid leave taking that are the result of different worker compositions at different jobs. For example, if a job disproportional attracts part time workers or young, unmarried workers, differences in leave taking might come from the fact that the workers are inherently different from those at other jobs. To ensure that this is not the case, I regress an indicator variable for whether an employed, college educated mother of an infant is reporting to be on paid parental leave on a vector of individual controls:

$$I[\text{Paid Leave}]_i = \beta_0 + \beta_1 \text{Switched Employers Since Last Year}_i + \beta_2 \text{Weekly Hrs Worked}_i \\ + \beta_3 \text{Age}_i + \beta_4 I[\text{Married}]_i + \beta_5 \text{Number of Children}_i + \epsilon_i$$

I obtain the residuals of the above regression; these capture the variation in paid leave taking that is not the result of the individual worker characteristics that I am able to control for. I then use the remaining variation to construct a regression adjusted measure of paid leave taking. Figure A9 shows that this measure is strongly correlated with my original measure, limiting any concerns that my original measure is biased by individual worker differences across jobs.

Table A4 shows my main results using an outcome variable constructed with the regression adjusted measure of paid leave taking. Across the board, the results are robust to this adjustment.

**Figure A9 — Relationship between Average Measure of Paid Leave Taking and Regression-Adjusted Measure**



**Notes:** Figure A9 shows the relationship between my main measure of the average measure of paid leave taking for college educated mothers of infants as discussed in section 4 and a regression-adjusted measure at the industry group level. The regression-adjusted measure eliminates any variation in the job level measure of paid leave taking that stems from differences in worker composition by relying on the residuals of regressing paid leave taking on a number of individual worker characteristics, including whether or not a worker switched employers in the last year, average weekly hours worked, marital status, the number of children, and age.

**Table A4 — Impact of State PFL on Adjusted Industry Group Composition**

|               | Women 25-39            | Women 25-29            | Women 30-34            | Women 35-39            |
|---------------|------------------------|------------------------|------------------------|------------------------|
| ATT           | -0.0016***<br>(0.0004) | -0.0023<br>(0.0021)    | -0.0008**<br>(0.0002)  | -0.0018<br>(0.0004)    |
| CA            | -0.0014***<br>(0.0003) | -0.0019**<br>(0.0006)  | -0.0007<br>(0.0005)    | -0.0007<br>(0.0006)    |
| NJ            | -0.0009***<br>(0.0002) | 0.0019***<br>(0.0005)  | -0.0014***<br>(0.0004) | -0.0030***<br>(0.0003) |
| RI            | -0.0025***<br>(0.0002) | -0.0070***<br>(0.0004) | -0.0004<br>(0.0004)    | 0.0014**<br>(0.0004)   |
| Share Mothers | 0.42                   | 0.17                   | 0.46                   | 0.65                   |
| N             | 956                    | 956                    | 956                    | 956                    |

*Notes:* Table A4 shows the point estimates and standard errors (in parentheses) for the impact of state PFL policy on the occupation-group level access to paid leave with a staggered adoption design.

The dependent variable is calculated as the share of infant mothers within a given occupation-group that report taking paid leave. All regressions include state and year fixed effects and control for marital status, race, educational attainment, city residence, and the state unemployment rate. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

#### A.4. Occupation-Group Level Analyses

While my main analysis calculates the outcome variable, the average measure of paid leave taking, at the industry group level, it is also worth considering the outcome variable calculated at the occupation group level. In many cases, occupation and industry selection overlap. However, there are some notable differences. Job switching for college educated women is relatively more infrequent at the occupation group level than at the industry group level: 11.7% of college educated women age 25-39 are new to an occupation group in any given year, compared to 16.5% for industry groups. However, occupation selection is somewhat more important for explaining the remaining gender pay gap for college educated men and women. As shown in figure A1, at age 25, occupation group selection can explain 50% of the male-female wage gap, relative to 37% that can be explained by industry selection.

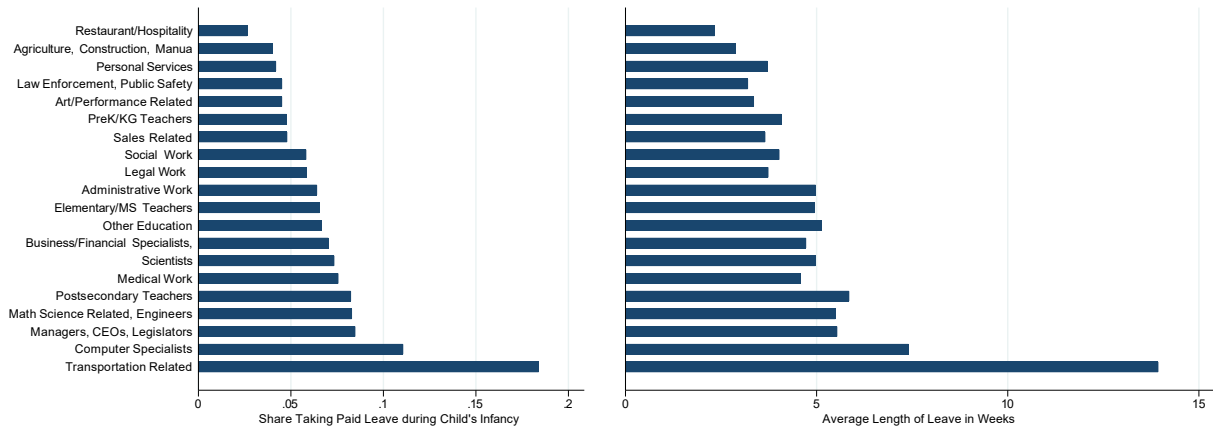
I follow the same process as in the main paper to assess the impact of state PFL policy on the occupation group level average measure of paid leave taking. Table A5 shows the occupation groups I aggregate my data to. In figure A10 I show the average measure of paid leave taking, as well as the average length of leave among employed women for each of the occupation groups.

**Table A5 — Occupation Groups**

| Occupation Group                         | Share of College Educated Women Age 25-40 |
|------------------------------------------|-------------------------------------------|
| Medical Work                             | 0.17                                      |
| Managers, CEOs, Legislators              | 0.14                                      |
| Administrative Work                      | 0.13                                      |
| Business/Financial Specialists, Analysts | 0.12                                      |
| Sales Related                            | 0.09                                      |
| Social Work                              | 0.04                                      |
| Art/Performance Related                  | 0.04                                      |
| Computer Specialists                     | 0.04                                      |
| Elementary/MS Teachers                   | 0.03                                      |
| Restaurant/Hospitality                   | 0.03                                      |
| Legal Work                               | 0.03                                      |
| Other Education                          | 0.03                                      |
| Scientists                               | 0.02                                      |
| Personal Services                        | 0.02                                      |
| Mathematical Science Related, Engineers  | 0.02                                      |
| Agriculture, Construction, Manual Labor  | 0.02                                      |
| Post-secondary Teachers                  | 0.02                                      |
| PreK/KG Teachers                         | 0.01                                      |
| Transportation Related                   | 0.00                                      |
| Law Enforcement                          | 0.00                                      |

College educated women employed in different occupations, just like across industries, have

**Figure A10 — Private Sector Paid Leave Taking by Occupation Group**

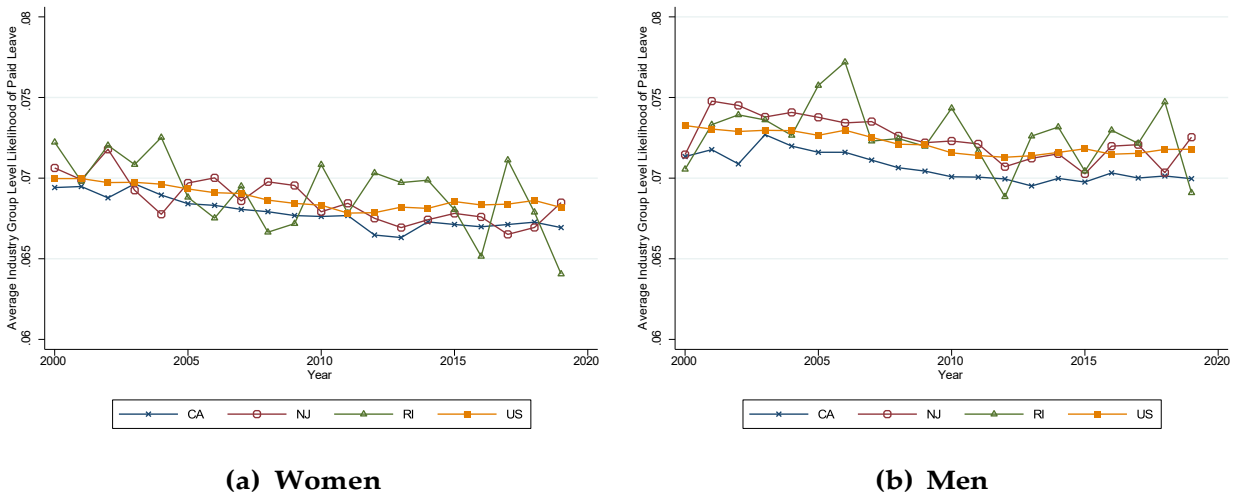


**Notes:** Figure A10 shows my measure of pre-policy paid leave taking calculated as the share of mothers of a child younger than one year old who are taking paid leave at a given point in time, based on data from the 2000-19 CPS for states without a TDI or PFL policy in place at the occupation group level. The right panel translates this measure into an average length of leave taking in weeks for those taking leave and does not incorporate occupation group differences in labor force participation for mothers of infants.

vastly different levels of paid leave taking, ranging from 2.9% in restaurant and hospitality occupations to 12% for computer specialists.

For this analysis, I then construct the outcome variable, job level average measure of paid leave taking based on the occupation group composition. A summary over time of this variable for women and men is shown in figure A11. The average measure of paid leave taking is somewhat lower following this calculation than at the industry group level and does not decrease over time.

**Figure A11 — Summary of Occupation Group Level Average Measure of Paid Leave Taking**



**Notes:** Figure A11 shows the average of my measure of pre-policy access to paid maternity leave calculated as the share of mothers of a child younger than one year old who are taking paid leave at a given point in time, based on data from the 2000-19 CPS for states without a TDI or PFL policy in place. The measure of paid leave taking is constant for each occupation group across years and states. Differences in the averages shown in this figure come from differences in the industry group composition of college educated women and men age 25-39.

Table A6 show the main set of results for the occupation group composition analysis. The results are slightly smaller in magnitude than the industry group composition results, but remarkably consistent in statistical significance and sign with the industry group results. The smaller point estimates are easily explained by lower levels of occupation group switching in the absence of policy; women are more locked into their occupation than they are in their industry. I show again the event-study style dynamic results in figure A12 and the results by age group in table A7.

**Table A6 — Impact of State PFL on Occupation Composition of College Educated Women Aged 25-39**

|                       | (1)                    | (2)                    | (3)                    |
|-----------------------|------------------------|------------------------|------------------------|
| ATT                   | -0.0009**<br>(0.0004)  | -0.0010**<br>(0.0004)  | -0.0008<br>(0.0006)    |
| CA                    | -0.0002<br>(0.0002)    | -0.0004*<br>(0.0002)   | 0.0003<br>(0.0002)     |
| NJ                    | -0.0010***<br>(0.0002) | -0.0007***<br>(0.0001) | -0.0006<br>(0.0003)    |
| RI                    | -0.0016***<br>(0.0002) | -0.0020***<br>(0.0002) | -0.0022***<br>(0.0003) |
| Residualized Outcome  | No                     | Yes                    | Yes                    |
| Comparison States     | No Policy by 2019      | No Policy by 2019      | Policy after 2019      |
| Share Mothers         | 0.42                   | 0.42                   | 0.35                   |
| Mean Likelihood of PL | 0.069                  | 0.069                  | 0.069                  |
| N                     | 904,361                | 904,361                | 310,756                |

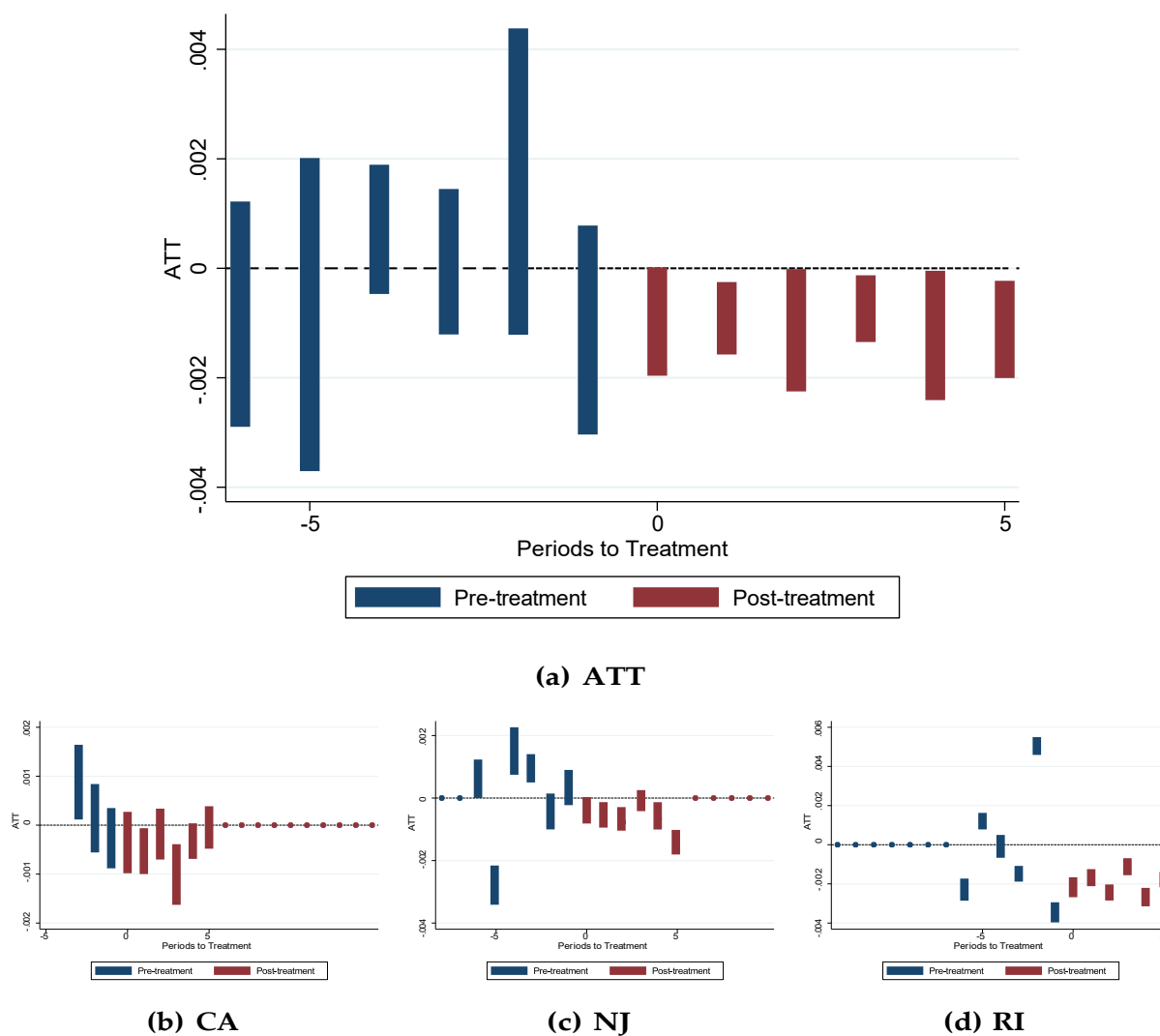
*Notes:* Table A6 shows the point estimates and standard errors (in parentheses) for the impact of state PFL policy on the industry group level access to paid leave with a staggered adoption design. The dependent variable is calculated as the share of infant mothers within a given occupation group that report taking paid leave. All regressions include state and year fixed effects and control for marital status, race, educational attainment, city residence, and state unemployment rate. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

**Table A7 — Impact of State PFL on Occupation Group Composition of Women by Age Group**

|                       | Women 25-39            | Women 25-29            | Women 30-34            | Women 35-39            |
|-----------------------|------------------------|------------------------|------------------------|------------------------|
| ATT                   | -0.0010**<br>(0.0004)  | -0.0007<br>(0.0007)    | -0.0012<br>(0.0007)    | -0.0009*<br>(0.0004)   |
| CA                    | -0.0004*<br>(0.0002)   | -0.0007*<br>(0.0003)   | 0.0004<br>(0.0004)     | -0.0000<br>(0.0003)    |
| NJ                    | -0.0007***<br>(0.0001) | 0.0007<br>(0.0004)     | -0.0019***<br>(0.0004) | -0.0008*<br>(0.0003)   |
| RI                    | -0.0020***<br>(0.0002) | -0.0021***<br>(0.0003) | -0.0021***<br>(0.0003) | -0.0017***<br>(0.0004) |
| Share with Children   | 0.43                   | 0.17                   | 0.46                   | 0.65                   |
| Mean Likelihood of PL | 0.69                   | 0.067                  | 0.069                  | 0.70                   |
| N                     | 904,361                | 315,888                | 306,449                | 282,024                |

*Notes:* Table A7 shows the point estimates and standard errors (in parentheses) for the impact of state PFL policy on the occupation group level access to paid leave with a staggered adoption design. The dependent variable is calculated as the share of infant mothers within a given occupation group that report taking paid leave. All regressions include state and year fixed effects and control for marital status, race, educational attainment and city residence. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

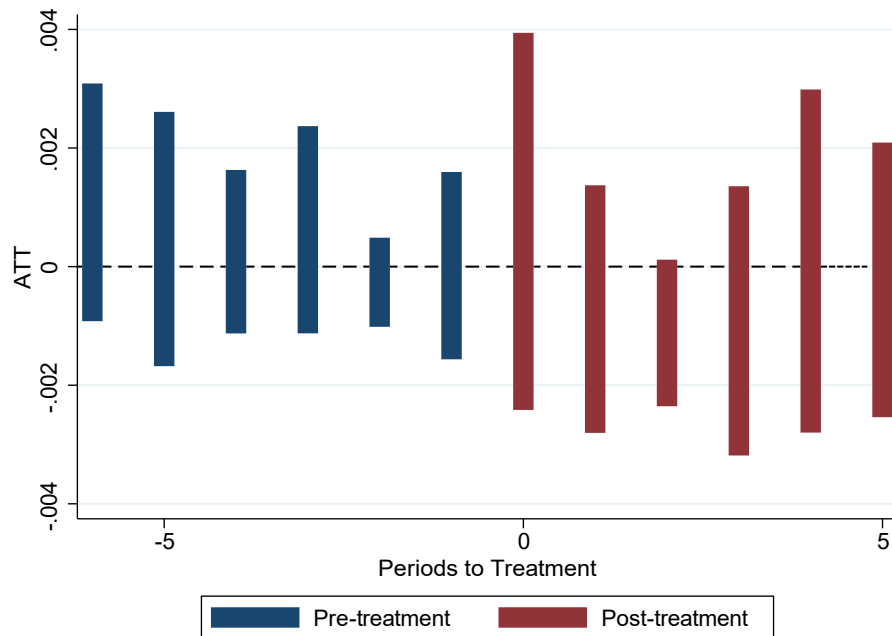
**Figure A12 — Event-Study Results for Impact of State PFL on Occupation Group Composition of College Educated Women Age 25-39**



**Notes:** Figure A12 shows the event-study style point estimates and 95% confidence intervals showing the impact of state PFL on the average occupation group level measure of access to paid leave for the combined analysis and separate for each state in each year relative to the year prior to policy implementation.

Finally, table A8, figure A13, and table A9 show the according results for college educated men age 25-39. Similar to the industry group level analyses, the decreases for men are statistically significant only for the California policy change, and the overall ATT is statistically insignificant.

**Figure A13 — Event-Study Results for Impact of State PFL on Occupation Group Composition of College Educated Men Age 25-39**



**(a) ATT**

*Notes:* Figure A13 shows the event-study style point estimates and 95% confidence intervals showing the impact of state PFL on the average occupation group level measure of access to paid leave for the combined analysis in each year relative to the year prior to policy implementation.

**Table A8 — Impact of State PFL on Occupation Composition of College Educated Men Aged 25-39**

|                       | (1)                    | (2)                    | (3)                   |
|-----------------------|------------------------|------------------------|-----------------------|
| ATT                   | 0.0002<br>(0.0012)     | -0.0004<br>(0.0011)    | -0.0005<br>(0.0008)   |
| CA                    | -0.0024***<br>(0.0004) | -0.0030***<br>(0.0004) | -0.0023**<br>(0.0008) |
| NJ                    | 0.0002<br>(0.0003)     | 0.0005<br>(0.0003)     | 0.0006<br>(0.0005)    |
| RI                    | 0.0027***<br>(0.0003)  | 0.0014***<br>(0.0003)  | 0.0002<br>(0.0010)    |
| Residualized Outcome  | No                     | Yes                    | Yes                   |
| Comparison States     | No Policy by 2019      | No Policy by 2019      | Policy after 2019     |
| Share Fathers         | 0.40                   | 0.40                   | 0.35                  |
| Mean Likelihood of PL | 0.073                  | 0.073                  | 0.074                 |
| N                     | 878,791                | 878,791                | 309,843               |

*Notes:* Table A8 shows the point estimates and standard errors (in parentheses) for the impact of state PFL policy on the occupation group level access to paid leave with a staggered adoption design. The dependent variable is calculated as the share of infant mothers within a given occupation group that report taking paid leave. All regressions include state and year fixed effects and control for marital status, race, educational attainment, city residence, and state unemployment rate.

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

**Table A9 – Impact of State PFL on Occupation Group Composition of Men by Age Group**

|                       | Men 25-39              | 25-29                  | 30-34                  | 35-39                  |
|-----------------------|------------------------|------------------------|------------------------|------------------------|
| ATT                   | -0.0004<br>(0.0011)    | 0.0018<br>(0.0024)     | -0.0011<br>(0.0007)    | -0.0019<br>(0.0012)    |
| CA                    | -0.0030***<br>(0.0004) | -0.0028***<br>(0.0006) | -0.0026***<br>(0.0007) | -0.0029***<br>(0.0005) |
| NJ                    | 0.0005<br>(0.0003)     | 0.0009*<br>(0.0005)    | 0.0002<br>(0.0006)     | 0.0011<br>(0.0006)     |
| RI                    | 0.0014***<br>(0.0003)  | 0.0072***<br>(0.0005)  | -0.0007<br>(0.0006)    | -0.0037***<br>(0.0004) |
| Mean Likelihood of PL | 0.073                  | 0.071                  | 0.074                  | 0.075                  |
| Share Fathers         | 0.40                   | 0.14                   | 0.42                   | 0.63                   |
| N                     | 878,791                | 268,069                | 305,823                | 304,929                |

*Notes:* Table A9 shows the point estimates and standard errors (in parentheses) for the impact of state PFL policy on the occupation group level access to paid leave with a staggered adoption design. The dependent variable occupation group level average of the share of college educated mothers of infants mothers within a given occupation group that report taking paid leave for college educated men. All regressions include state and year fixed effects and control for marital status, race, educational attainment, city residence, and state unemployment rate. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .