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

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Abstract

Much of the observed 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 their career choices respond to job level changes in access to paid maternity leave. State paid family leave (PFL) programs provide almost universal access to paid leave for new mothers and therefore disproportionately increase access to paid leave in jobs with lower employer-provided leave coverage in the absence of PFL. I test whether state PFL increases the concentration of young women in jobs that prior to the policy change had lower levels of employerprovided paid leave. I use data from the Current Population (CPS) and American Community (ACS) surveys to estimate an industry level measure of employer-provided paid leave taking in the absence of policy. I then exploit the implementation of the California (2004), New Jersey (2009), and Rhode Island (2014) state programs to test whether PFL affects the industry group distribution of college educated women age 25-39 using difference-in-differences (DD) and staggered adoption design estimations. I find that PFL led to a quantitatively meaningful flow into jobs with lower levels of employer-provided paid leave taking in the absence of PFL. Treating my job level measure of paid leave taking as fixed, the distribution of jobs changed enough to lower the average industry level measure of paid leave by two percent. The effects for women are larger than those for men, which helps rule out alternative explanations such as industry-specific demand shocks. 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.¹ 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.²

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 did not select 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.

¹In 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.

²I.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 lowers 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 amendable careers for young women relatively to young men.

I test whether PFL changes the composition of employment in a way that results in young women becoming disproportionately employed in jobs that see access to paid leave increase more due to PFL policy. Using publicly available data from the 2000-19 Current Population Survey (CPS) and American Community Survey (ACS), I first estimate a job level measure of paid leave taking by calculating the share of mothers of infants in a job who take paid leave at any given time during their child's first year of life. I treat this measure of employer-provided paid leave taking in the absence of PFL as fixed at the industry group level. I then use this time- and state-invariant industry group level measure of paid leave taking to calculate a state-by-year mean that varies only with changes in the industry group composition of employment. In other words, changes in this mean reveal changes in the share of women employed across industry groups with different levels of employer-provided paid leave taking in the absence of PFL. I exploit the implementation of the California (2004), New Jersey (2009), and Rhode Island (2014) state policies to test whether PFL lowers the state-by-year mean measure of paid leave taking for college educated women age 25-39 employed in the private sector, using difference-in-differences and staggered adoption design estimations.

I find that women move towards industries with lower levels of employer-provided paid leave taking when state PFL provides near universal access to paid leave. Treating my job level measure of paid leave taking as fixed, I find that the distribution of jobs changed enough to lower the average industry level of paid leave by two percent. My 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 no 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 do not find the same change in the industry composition for men, which helps rule out alternative explanations such as industryspecific 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 the access to paid leave.

Despite the large and growing body of research on the impact of state paid parental leave

programs on labor market outcomes³, to my knowledge, my study is the first to consider the 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

³For 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 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.

analysis in section 6. Section 7 concludes.

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).⁴

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 weeks⁵ of paid leave following birth at partial wage replacement rates, decades prior to the implementation of the first state PFL program.

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 days. 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

 $^{^{4}}$ Waldfogel (1999) finds that access to leave and utilization of leave increased following implementation of the FMLA, whereas women's employment and wages did not change.

⁵An additional 4 weeks of post birth leave is provided for women who have a cesarean birth or experience other medical complications.

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.⁶

To date, 14 states and Washington, D.C. have passed state PFL policies. Appendix table A1 provides an overview of these policies.⁷ 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, in most cases, care for an infant in their 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.⁸ 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.⁹

The policy landscape is even more complex for other types of employment: Independent con-

 $^{^{6}}$ For example, as of July 1, 2018, CU Boulder provided 4 weeks of paid leave for regular 12-month faculty, university 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.

⁷Note 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.

⁸The 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.

 $^{^{9}}$ I.e. those who meet the work tenure requirements at an employer with less than 50 and more than 5 employees.

	California	New Jersey	Rhode Island
Date Passed	2002	2008	2013
Date Effective	July 2004	July 2009	January 2014
Length	6 weeks	6 weeks	4 weeks
Maximum Pay	55%	66.67%	60%
Replacement			
Maximum	\$728	\$546	\$752
Weekly Bene-			
fit Amount			
Job Protection	Available through CFRA if	Included in NFLA.	Available through
	employer has $5+$ employees		RIPFMLA if employer
	and employee has worked at		has $50+$ employees and
	the employer for at least 12		employee has worked at the
	months and $1,250$ hours.		employer for at least 12
			months and 1,250 hours.
Included Employ-	Private sector employers,	Private sector employers	All employers
ers	state and local government	with $50+$ employees, state	
	employers on a voluntary	and local government em-	
	basis	ployers on a voluntary basis	
Employee Re-	Employed at job covered by	Employed in NJ, must have	Employed at job covered by
quirements	CA SDI, must have earned	earned on average \$145 per	TDI, have earned at least
	\$300 or more in wages in 4	week during 4 of the 5 quar-	\$ 11,520 in highest earning
	of the 5 quarters before the	ters before the claim	quarter of 5 quarters leading
	claim		up to claim or \$23.040 in to-
~			tal during those quarter.
Self-Employed	1.2%	0.99%	1.2% up to the base of
tax contribution			\$61,400

Table 1—Paid Family Leave Policy

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. Self-employed are covered on a voluntary, opt-in basis in all states, federal employees are not covered.

tractors 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.¹⁰ State and local government employees are not covered under the California and Rhode Island state PFL programs, but are covered under 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, the 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.¹¹ 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 more 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.

Access to paid leave lowers the cost of giving birth while employed at a given job. Without access to paid leave, new mothers have the choice between returning to work quickly following the

¹⁰Opt-in rates for self-employed people are reportedly low across all states.

¹¹Appendix 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.

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 formalized childcare arrangements (i.e. day care) do not accept babies younger than 12 weeks.¹² 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.¹³ 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 provide 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.¹⁴ This suggests that women in jobs with less access to

 $^{^{12}}$ 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.

¹³Similarly, 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).

 $^{^{14}}$ 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-

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.¹⁵

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 child birth. 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

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 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 shortand 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.

¹⁵A 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.

in this paper.

A frequently cited concern regarding paid leave policies is that they increase the cost of labor to 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.¹⁶ 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 indented 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

¹⁶On 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.

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 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.¹⁷ In addition to covering only relatively small samples, 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

¹⁷The Survey of Income and Program Participation (SIPP) has re-added a questions 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.

paid parental leave.¹⁸ Finally, even when leave is offered, norms may discourage individuals from taking advantage of the leave, in particular if they feel like they may be penalized for it.¹⁹

Rather than measuring 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 a measure of paid leave taking at any given job 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. 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.²⁰

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.²¹

 $^{^{18}}$ 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 leave benefits.

¹⁹Bana et al. (2018) provide somewhat encouraging evidence that this is not the case for new mothers by showing that the industry distribution of bonding claims following the California law change is similar to that of employed new mothers in California overall. This is not the case for men for whom workplace norms appear to play a bigger role in take-up of paid leave.

 $^{^{20}}$ 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 employers, and much more likely to have worked for a very large employer than mothers in all other labor market categories. Interestingly, mothers who are on paid leave in terms of their demographics.

²¹Appendix 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

I use pooled data from 2000-19 for all states that do not implement a PFL program and do not provide TDI for new mothers²² from 2000-19²³ to calculate a measure of access to paid leave at the job level.²⁴

I choose industry rather than occupation as the main job level considered in this analysis. Using data from the 2000-19 CPS-ASEC, I calculate that of college educated women aged 25-39 who currently work in the private sector, 16.5% were not working in the industry they report for their current employment in the year prior. Occupation switching is more rare than industry switching, with 11.7% reporting that they did not work in their current occupation in the past year. 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.²⁵ 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 average 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 an industry group in the absence of PFL policy by taking the share of working mothers of infants in an industry group 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. Panel 1 of figure

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.

²²I.e. the measure excludes Hawaii, California, New Jersey, Rhode Island, and New York.

 $^{^{23}}$ 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.

²⁴While 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 job level.

²⁵Appendix 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.

1 shows this measure for each industry group. The share of college educated mothers of infants taking paid leave ranges from 1.5% in day cares to 10.6% in wholesale. I translate this measure into an average length of leave taking shown in panel 2. To do so, I assume that any mother of an infant who is working took some amount of paid leave following the birth of their child (i.e. they never left the labor force). Consequently, I multiply the share of employed of mothers of infants who are taking paid leave at any point by 52 weeks. Unlike my measure of paid leave taking, this average length does not account for differences in labor force participation of mothers of infants across different industry groups. Specifically, this means that an industry group with a lower paid leave taking but longer average duration of paid leave than another industry group has lower labor force participation for mothers of infants. For every industry group included in my analysis, the average length of leave, paid or unpaid²⁶, is below the 12 weeks typically granted by state PFL programs. Thus the policy is binding for all industry groups.

This measure of paid leave taking encapsulates both differences in offered leave and differences in actual leave taking (i.e. the workplace norms around leave taking).²⁷ I hypothesize that PFL legislation levels the playing field for paid leave both in terms of the leave available to employees at different jobs and the take-up of leave at different jobs. Therefore, this measure correctly captures the job level differences in paid leave prior to policy implementation.

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. My outcome variable of interest is the industry group average of paid leave taking (PL_{ys}) in year y and state s, which changes only as the result of industry group composition changes. This measure is calculated by first calculating PL_i , which is the share of mothers of infants

 $^{^{26}}$ See appendix figure A5 for an overview of both paid and all maternity leave by industry group.

²⁷Importantly, this measure should not capture differences in the paid leave taking that stem from differences in the worker composition at a given job. To ensure that this is not the case, I regress whether or not a woman takes paid leave at a given job on a series of 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 those individual worker characteristics. Appendix figure A9 shows that my measure of paid leave taking and this adjusted measure are closely correlated, limiting such concerns. I show that my results are robust to this regression-adjustment in the appendix in section A.3.

in each industry group that report being on leave:

$$PL_{i} = \frac{(\text{Moms of Infants on Paid Leave})_{i}}{(\text{Moms of Infant Last in Industry})_{i}}$$

Figure 1—Private Sector Paid Leave Taking by Industry Group



Notes: Figure 1 shows 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 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.

I then take the weighted average of this time- and state-invariant industry level measure of paid leave taking, where λ_{iys} is the share of college educated women age 25-39 in state s and year y who work in the industry group i.

$$PL_{ys} = \sum_{i=1}^{23} \left(\lambda_{iys} \times PL_i \right)$$

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 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, paid leave taking decreases throughout my period of study, and does so more for women than for men.

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 average measure of paid leave taking. 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 job 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(Policy Year, Year) =
$$E[PL_v - PL_{pv-1}|T = 1] - E[PL_{tv} - PL_{pv-1}|C = 1]$$

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 differencein-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 comparable²⁸ and exclude states that have a TDI policy in place or implement a state PFL program in 2019.²⁹ I rely on the bootstrapping method by Callaway and Sant'Anna (2021) which clusters at the state level for inference.³⁰

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 the average industry group level measure of paid leave taking in the absence of state policy. The overall ATT is reported in the first row and the ATTs for each of the three treated state 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 average industry group measure of paid leave taking by 0.12-0.14 percentage points. This translates into a roughly two percent decrease in the measure. 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.

In column (3) I repeat the specifications of column (2), but restrict the comparison states to

 $^{^{28}}$ Due to data availability, the pre-period for California only includes 4 years.

²⁹I.e, my analysis excludes Hawaii and New York.

³⁰All estimates were computed with the Stata package csdid.

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

(1)	(2)	(3)
-0.0012***	-0.0014***	-0.0012**
(0.0002)	(0.0004)	(0.0004)
-0.0011***	-0.0015***	-0.0014***
(0.0003)	(0.0003)	(0.0003)
-0.0010***	-0.0005*	-0.0004
(0.0002)	(0.0002)	(0.0003)
-0.0016***	-0.0022***	-0.0018***
(0.0002)	(0.0002)	(0.0004)
No	Yes	Yes
No Policy by 2019	No Policy by 2019	Policy after 2019
0.42	0.42	0.35
0.070	0.070	0.070
956	956	256
	$(1) \\ -0.0012^{***} \\ (0.0002) \\ -0.0011^{***} \\ (0.0003) \\ -0.0010^{***} \\ (0.0002) \\ -0.0016^{***} \\ (0.0002) \\ \hline No \\ No Policy by 2019 \\ 0.42 \\ 0.070 \\ 956 \\ \end{cases}$	$\begin{array}{c cccc} (1) & (2) \\ -0.0012^{***} & -0.0014^{***} \\ (0.0002) & (0.0004) \\ -0.0011^{***} & -0.0015^{***} \\ (0.0003) & (0.0003) \\ -0.0010^{***} & -0.0005^{*} \\ (0.0002) & (0.0002) \\ -0.0016^{***} & -0.0022^{***} \\ (0.0002) & (0.0002) \\ \hline No & Yes \\ No Policy by 2019 & No Policy by 2019 \\ 0.42 & 0.42 \\ 0.070 & 0.070 \\ 956 & 956 \\ \end{array}$

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.

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 estimating an event-study framework that for each year separately provides the point estimates and Figure 2—Event-Study Results for Impact of State PFL on Industry Group Composition



(a) ATT

Notes: Figure 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.

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 thre 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 o 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.

	Women 25-39	Women 25-29	Women 30-34	Women 35-39
ATT	-0.0014***	-0.0022	-0.0004	-0.0011
	(0.0004)	(0.0017)	(0.0003)	(0.0007)
CA	-0.0015***	-0.0023***	-0.0006	-0.0010
	(0.0003)	(0.0005)	(0.0005)	(0.0006)
NJ	-0.0005*	0.0015^{**}	-0.0006	-0.0025***
	(0.0002)	(0.0005)	(0.0003)	(0.0003)
RI	-0.0022***	-0.0058***	0.0000	0.0003
	(0.0002)	(0.0004)	(0.0004)	(0.0004)
Share Mothers	0.43	0.17	0.46	0.65
Mean Likelihood of PL	0.70	0.069	0.071	0.071
Ν	956	956	956	956

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

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***	-0.0005	-0.0022***
	(0.0004)	(0.0004)	(0.0006)
$\mathbf{C}\mathbf{A}$	-0.0015***	-0.0001	-0.0027***
	(0.0003)	(0.0004)	(0.0005)
NJ	-0.0005*	-0.0001	-0.0009
	(0.0002)	(0.0003)	(0.0005)
RI	-0.0022***	-0.0014***	-0.0029***
	(0.0002)	(0.0003)	(0.0004)
Share Mothers	0.51	0.70	0.22
Mean Likelihood of PL	0.070	0.071	0.069
Ν	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.

	Women 25-39	Childless	Mothers
ATT	-0.0014***	-0.0020	-0.0009
	(0.0004)	(0.0011)	(0.0006)
$\mathbf{C}\mathbf{A}$	-0.0015***	-0.0017***	-0.0007
	(0.0003)	(0.0004)	(0.0005)
NJ	-0.0005*	0.0003	-0.0020***
	(0.0002)	(0.0004)	(0.0003)
RI	-0.0022***	-0.0045***	0.0001
	(0.0002)	(0.0003)	(0.0004)
Share Mothers	0.51	0	1
Mean Likelihood of PL	0.070	0.070	0.070
Ν	956	956	956

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

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 7 shows the results.

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

	(1)	(2)	(3)
ATT	-0.0006	-0.0005	-0.0007
	(0.0003)	(0.0003)	(0.0006)
CA	-0.0014***	-0.0011***	-0.0008
	(0.0002)	(0.0002)	(0.0005)
NJ	-0.0004	-0.0005	-0.0014
	(0.0003)	(0.0003)	(0.0008)
RI	-0.0001	0.0002	0.0002
	(0.0002)	(0.0002)	(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
Ν	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 ATT for college educated men age 25-39 are not statistically significant, regardless of the specification. Nonetheless, the overall pattern of a decrease in the average industry group level measure of paid leave taking in the absence of PFL that I documented for women persists, and two of the three coefficients are statistically significant for California. However, the decrease in the outcome variable in California 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 California PFL implementation. Also, the magnitude of effects is somewhat smaller, with a 0.11 percentage point decrease in my preferred specification (column 2).

It should not be surprising that I find some suggestive evidence of a smaller decrease in the average industry group level meausre of paid leave taking for men relative to the decreases for women. From the existing literature, we know that fathers do respond to changes in parental leave offerings in the same direction as women, but with reduced magnitude. My results again show that young men are not impacted in their job selection by paid parental leave in the same way as young women.

In table 7 I show the results for college educated men by age group. The pattern of results

	Men 25-39	Men 25-29	Men 30-34	Men 35-39
ATT	-0.0006	-0.0000	-0.0020*	0.0004
	(0.0003)	(0.0007)	(0.0009)	(0.0007)
CA	-0.0014***	-0.0014**	-0.0020***	-0.0001
	(0.0002)	(0.0004)	(0.0004)	(0.0004)
NJ	-0.0004	0.0001	-0.0000	-0.0007
	(0.0003)	(0.0004)	(0.0004)	(0.0005)
RI	-0.0001	0.0012**	-0.0039***	0.0020***
	(0.0002)	(0.0004)	(0.0004)	(0.0003)
Share Fathers	0.40	0.14	0.42	0.63
Mean Likelihood of PL	0.073	0.071	0.073	0.73
Ν	956	956	956	956

Table 7—Impact of State PFL on Industry Group Composition of Men by Age Group

Notes: Table 7 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.

here is somewhat less consistent than the pattern of the age group results for women. In the case of California, the policy appears to have the largest impact - a decrease of 0.1 and 0.2 percentage points - on men in the 25-29 and 30-34 age groups. All results are statistically insignificant for New Jersey and coefficients switch in sign depending on the age group for Rhode Island.

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 employment³¹: 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 **??** for self-employment, private employment (for profit and non-profit), and public employment (local or state government). I drop anyone employed with the federal government as this is a very rare type of employment for women in the states treated in my analysis and thus does not have adequate sample size. Figure **3** shows the differences in paid leave taking by type of employment for the 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 business than for business specialists and administrative employees.

³¹Two 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.





Notes: Figure 3 shows my measure of pre-policy paid leave takingm calculated as described in section 4 for mothers of infants last employed in management, business specialist, or administrative occupations for self-employment, private, and public employment.

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.³² 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 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 speciality occupations, public sector employees should see somewhat larger increases

 $^{^{32}}$ Recall that in RI all public employers are covered by the PFL policy, whereas in CA and NJ they can opt in.

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. However, for women employed in administrative occupations, access to paid leave is 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 find this increase in public sector employment only for Rhode Island's policy. Within administrative occupations, I don't see any increase in public sector employment. Again, 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

Notes: Figure 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 25-45 with known employment or last employment in a given occupation group.

7. Conclusion

If young, college educated women consider the cost of a 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 average of employer-provided paid leave taking 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. Event-study style results show no evidence of pre-trends, and 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. 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 explanaitons 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.

References

- Andresen, Martin Eckhoff and Emily Nix (2022). "What causes the child penalty? Evidence from adopting and same-sex couples". In: *Journal of labor economics* 40.4, pp. 971–1004.
- Bailey, Martha et al. (Forthcoming). "The Long-Run Effects of California's Paid Family Leave Act on Women's Careers and Childbearing: New Evidence from a Regression Discontinuity Design and US Tax Data". In: *American Economic Journal: Economic Policy*.
- Baker, Andrew C, David F Larcker, and Charles CY Wang (2022). "How much should we trust staggered difference-in-differences estimates?" In: *Journal of Financial Economics* 144.2, pp. 370– 395.
- Baker, Michael and Kevin Milligan (2008). "How does job-protected maternity leave affect mothers' employment?" In: *Journal of Labor Economics* 26.4, pp. 655–691.
- Bana, Sarah, Kelly Bedard, and Maya Rossin-Slater (2018). "Trends and disparities in leave use under California's paid family leave program: new evidence from administrative data". In: AEA Papers and Proceedings. Vol. 108. American Economic Association 2014 Broadway, Suite 305, Nashville, TN 37203, pp. 388–391.
- Bartel, Ann et al. (2023). "The impact of paid family leave on employers: Evidence from New York". In: Community, Work & Family, pp. 1–19.
- Bartel, Ann P et al. (2018). "Paid family leave, fathers' leave-taking, and leave-sharing in dual-earner households". In: Journal of Policy Analysis and Management 37.1, pp. 10–37.
- Baum, Charles L and Christopher J Ruhm (2016). "The effects of paid family leave in California on labor market outcomes". In: Journal of Policy Analysis and Management 35.2, pp. 333–356.
- Blair, Peter Q and Benjamin Posmanick (2023). Why Did Gender Wage Convergence in the United States Stall? Tech. rep. National Bureau of Economic Research.
- Brown Scott amd Roy, Radha and Jacob Alex Klerman (2020). "Who is Eligible for FMLA". In.
- Byker, Tanya S (2016). "Paid parental leave laws in the United States: Does short-duration leave affect women's labor-force attachment?" In: *American Economic Review* 106.5, pp. 242–246.
- Callaway, Brantly and Pedro HC Sant'Anna (2021). "Difference-in-differences with multiple time periods". In: Journal of Econometrics 225.2, pp. 200–230.
- Canaan, Serena et al. (2022). "Maternity leave and paternity leave: Evidence on the economic impact of legislative changes in high income countries". In.
- Cortés, Patricia and Jessica Pan (2023). "Children and the remaining gender gaps in the labor market". In: Journal of Economic Literature 61.4, pp. 1359–1409.
- Curtis, Mark E, Barry T Hirsch, and Mary C Schroeder (2016). "Evaluating workplace mandates with flows versus stocks: An application to California paid family leave". In: Southern Economic Journal 83.2, pp. 501–526.
- D'Angelis, Ilaria (2023). The Search for Parental Leave and the Early-Career Gender Wage Gap. Tech. rep.
- Dahl, Gordon B, Katrine V Løken, and Magne Mogstad (2014). "Peer effects in program participation". In: American Economic Review 104.7, pp. 2049–2074.
- De Chaisemartin, Clément and Xavier d'Haultfoeuille (2020). "Two-way fixed effects estimators with heterogeneous treatment effects". In: American economic review 110.9, pp. 2964–2996.
- Dottori, Davide, Francesca Modena, and Giulia Martina Tanzi (2024). "Peer effects in parental leave: Evidence from Italy". In: *Labour Economics* 89, p. 102600.

- Gallen, Yana (2019). The effect of parental leave extensions on firms and coworkers. Tech. rep. working paper.
- Ginja, Rita, Arizo Karimi, and Pengpeng Xiao (2023). "Employer responses to family leave programs". In: American Economic Journal: Applied Economics 15.1, pp. 107–135.
- Girsberger, Esther Mirjam et al. (2023). "Mothers at work: How mandating a short maternity leave affects work and fertility". In: *Labour Economics* 84, p. 102364.
- Goldin, Claudia (2014). "A grand gender convergence: Its last chapter". In: American economic review 104.4, pp. 1091–1119.
- (2021). Career and family: Women's century-long journey toward equity. Princeton University Press.
- Goodman, Julia M, Holly Elser, and William H Dow (2020). "Employer-reported access to paid parental leave: A study of San Francisco's paid parental leave ordinance". In: *SSM-population health* 11, p. 100627.
- Han, Wen-Jui, Christopher Ruhm, and Jane Waldfogel (2009). "Parental leave policies and parents' employment and leave-taking". In: Journal of Policy Analysis and Management: The Journal of the Association for Public Policy Analysis and Management 28.1, pp. 29–54.
- Hastwell, Clare (2023). "How Competitive is Your Company's Paid Parental Leave". In.
- Huebener, Mathias et al. (2021). A firm-side perspective on parental leave. Tech. rep. IZA Discussion Papers.
- Kleven, Henrik, Camille Landais, and Jakob Egholt Søgaard (2019a). "Children and gender inequality: Evidence from Denmark". In: American Economic Journal: Applied Economics 11.4, pp. 181– 209.
- Kleven, Henrik et al. (2019b). "Child penalties across countries: Evidence and explanations". In: AEA Papers and Proceedings. Vol. 109. American Economic Association 2014 Broadway, Suite 305, Nashville, TN 37203, pp. 122–126.
- Kofoed, Michael S et al. (2019). "The effect of same-gender or same-race role models on occupation choice: evidence from randomly assigned mentors at West Point". In: *Journal of Human Resources* 54.2, pp. 430–467.
- Lalive, Rafael and Josef Zweimüller (2009). "How does parental leave affect fertility and return to work? Evidence from two natural experiments". In: *The Quarterly Journal of Economics* 124.3, pp. 1363–1402.
- Lalive, Rafael et al. (2014). "Parental leave and mothers' careers: The relative importance of job protection and cash benefits". In: *Review of Economic Studies* 81.1, pp. 219–265.
- Lichtman-Sadot, Shirlee (2014). "The value of postponing pregnancy: California's paid family leave and the timing of pregnancies". In: *The BE Journal of Economic Analysis & Policy* 14.4, pp. 1467– 1499.
- Looze, Jessica (2017). "Why Do (n't) they Leave?: Motherhood and women's Job Mobility". In: Social Science Research 65, pp. 47–59.
- Markussen, Simen and Knut Røed (2017). "The gender gap in entrepreneurship–The role of peer effects". In: Journal of Economic Behavior & Organization 134, pp. 356–373.
- Nicoletti, Cheti, Kjell G Salvanes, and Emma Tominey (2018). "The family peer effect on mothers" labor supply". In: American Economic Journal: Applied Economics 10.3, pp. 206–234.

- Olivetti, Claudia and Barbara Petrongolo (2017). "The economic consequences of family policies: lessons from a century of legislation in high-income countries". In: *Journal of Economic Perspectives* 31.1, pp. 205–230.
- Oloomi, Sara (2016). "Impact of Paid Family Leave of California on Delayed Childbearing and on Infant Health Outcomes". In: Louisiana State University Department of Economics Working Paper Series.
- Rossin-Slater, Maya, Christopher J Ruhm, and Jane Waldfogel (2013). "The effects of California's paid family leave program on mothers' leave-taking and subsequent labor market outcomes". In: *Journal of Policy Analysis and Management* 32.2, pp. 224–245.
- Ruggles, Steven et al. (2023). IPUMS USA: Version 13.0. Tech. rep. IPUMS USA Minneapolis, MN.
- Scherer, Zachary (2022). Evaluation of the Reintroduced Parental Leave Content in the 2019 Survey of Income and Program Participation. Tech. rep.
- Stock, Wendy A and Myron Inglis (2021). "The longer-term labor market impacts of paid parental leave". In: Growth and Change 52.2, pp. 838–884.
- Sun, Liyang and Sarah Abraham (2021). "Estimating dynamic treatment effects in event studies with heterogeneous treatment effects". In: Journal of econometrics 225.2, pp. 175–199.
- Timpe, Brenden (2024). "The labor market impacts of America's first paid maternity leave policy". In: Journal of Public Economics 231, p. 105067.
- Waldfogel, Jane (1999). "The impact of the family and medical leave act". In: Journal of Policy Analysis and Management: The Journal of the Association for Public Policy Analysis and Management 18.2, pp. 281–302.
- Wasserman, Melanie (2023). "Hours constraints, occupational choice, and gender: Evidence from medical residents". In: *The Review of Economic Studies* 90.3, pp. 1535–1568.
- Welteke, Clara and Katharina Wrohlich (2019). "Peer effects in parental leave decisions". In: Labour Economics 57, pp. 146–163.
- Wiswall, Matthew and Basit Zafar (2018). "Preference for the workplace, investment in human capital, and gender". In: *The Quarterly Journal of Economics* 133.1, pp. 457–507.

A. 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.





(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

State	Date	Length	Max Pay	Job	Employer	Employee
	Effective		Replacem.	Protection	Req.	Req.
CA	2004	6 weeks	55%	Not included	Private	Earned \$300+ in CA in base-
						line period
NJ	July 2009	6 weeks	66%	Included	Private,	Worked at least 20 weeks in
					50+ em-	NJ
					ployees	
RI	2014	4 weeks	60%	Not included	Universal	Earned $$11,520+$ in RI in
	_				_	baseline period
NY	Jan 2018	8 weeks	50%	Included	Private	Work 26 weeks in NY if 20+
						h/week, 175 days in NY if less
XX7A	I 0000	10 1	0.007	NT 4 1 1 1 1	TT · 1	h/week
WA	Jan 2020	12 weeks	90%	Not included	Universal	820 hours of work in WA in
	I1 9090	0	0007	Not in doda	Dutanta	Commentation of the D C
	July 2020	8 weeks	90%	Not included	Private	Agreently employed in D.C.
MA	Jan 2021	12 weeks	50%	Included	Universal	Anyone eligible for UI
CT	Jan 2022	12 weeks	95%	Not Included	Private	Earned $$2,325+$ in one quar-
						ter in the previous year, or 12
						if ad amplayer prior to logue
OD	Comt 2022	10 moolea	¢1 599 /W	Included	Universal	Currently appload correct
OR	Sept 2023	12 weeks	\$1,523/W	Included	Universal	Currently employed, earned
NH	Inp 2022	6 wooks	60%	Not Included	Universal	Fmployed in NH
	Jan 2025	12 wooks	00%	Not included	Privato	Earned \$2,500 in baseline po
00	Jan 2024	12 WEEKS	3070	Not included	1 IIvate	riod in CO
MD	Ian 2026	12 weeks	\$1.000/W	Included	Private	680 hours in MD in previous
WID	5411 2020	12 WCCKS	\$1,000/W	menuded	1 IIvate	vear
DE	Jan 2026	12 weeks	80%	Not included	10+ Em-	Worked for DE employer for
21	0411 2020	12		1.000 moradoa	plovees	at least 12 months, 1.250h in
					P5	past vear.
ME	Jan 2026	12 weeks	90%	Included if	Private	Earned $$6,622+$ in base pe-
				tenure on job		riod
				120 + days		
MN	Jan 2026	12 weeks	90%	Included	Universal	Earned 5.3% + of state's aver-
						age annual wage

Table A1-U.S. State Paid Family Leave Laws

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

			Employed,	Employed,
	OLF	Working	Unpaid Leave	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

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

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.

Industry Group	Share of College	Labor Force	N Moms	Share Employed	Likelihood
	Educated Women	Part. Rate	of Infants	Moms of Infants	of Access to
	Age 25-40	Moms of Infants	in CPS	on Paid Leave	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

Table A3—Industry Groups

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:

 $I[\text{Paid Leave}]_i = \beta_0 + \beta_1 \text{Switched Employers Since Last Year}_i + \beta_2 \text{Weekly Hrs Worked}_i$

$$+\beta_3 \operatorname{Age}_i + \beta_4 I[\operatorname{Married}]_i + \beta_5 \operatorname{Number of Children}_i + \epsilon_i$$

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 ?? 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.

	Women 25-39	Women 25-29	Women 30-34	Women 35-39
ATT	-0.0016***	-0.0022	-0.0006*	-0.0014***
	(0.0005)	(0.0016) (0.0003)	(0.0004)	
CA	-0.0016***	-0.0023***	-0.0007	-0.0011*
	(0.0003)	(0.0006)	(0.0005)	(0.0006)
NJ	-0.0006**	0.0011^{*}	-0.0010**	-0.0022***
	(0.0002)	(0.0005)	(0.0003)	(0.0003)
RI	-0.0026***	-0.0055***	-0.0003	-0.0009*
	(0.0002)	(0.0004)	(0.0003)	(0.0003)
Share with Children	0.43	0.17	0.46	0.65
N	956	956	956	956

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

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 an 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 asses 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.

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

Table A5—Occupation Groups

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 tking, 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.

	(1)	(2)	(3)
ATT	-0.0009**	-0.0010**	-0.0008
	(0.0004)	(0.0004)	(0.0006)
CA	-0.0002	-0.0004*	0.0003
	(0.0002)	(0.0002)	(0.0002)
NJ	-0.0010***	-0.0007***	-0.0006
	(0.0002)	(0.0001)	(0.0003)
RI	-0.0016***	-0.0020***	-0.0022***
	(0.0002)	(0.0002)	(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
Ν	$904,\!361$	$904,\!361$	310,756

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

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**	-0.0007	-0.0012	-0.0009*
	(0.0004)	(0.0007)	(0.0007)	(0.0004)
CA	-0.0004*	-0.0008*	0.0004	-0.0001
	(0.0002)	(0.0003)	(0.0004)	(0.0003)
NJ	-0.0007***	0.0007	-0.0019***	-0.0008*
	(0.0001)	(0.0004)	(0.0004)	(0.0003)
RI	-0.0020***	-0.0021***	-0.0021***	-0.0017***
	(0.0002)	(0.0003)	(0.0003)	(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
Ν	$904,\!361$	$315,\!888$	$306,\!449$	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	-0.0004	-0.0006
	(0.0012)	(0.0011)	(0.0008)
CA	-0.0024***	-0.0031***	-0.0024**
	(0.0004)	(0.0004)	(0.0008)
NJ	0.0002	0.0005	0.0005
	(0.0003)	(0.0003)	(0.0005)
RI	0.0027***	0.0014^{***}	0.0002
	(0.0003)	(0.0003)	(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
Ν	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.

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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	0.0018	-0.0011	-0.0019
	(0.0011)	(0.0025)	(0.0007)	(0.0012)
CA	-0.0031***	-0.0029***	-0.0026***	-0.0030***
	(0.0004)	(0.0006)	(0.0007)	(0.0005)
NJ	0.0005	0.0009	0.0002	0.001
	(0.0003)	(0.0005)	(0.0006)	(0.0006)
RI	0.0014^{***}	0.0073^{***}	-0.0008	-0.0038***
	(0.0003)	(0.0005)	(0.0006)	(0.0004)
Mean Likelihood of PL	0.073	0.071	0.074	0.075
Share Fathers	0.40	0.14	0.42	0.63
Ν	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.