Paid Parental Leave Laws in the United States: Does Short-Duration Leave Affect Women's Labor-Force Attachment? By TANYA S. BYKER*

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In 2004. California became the first state to mandate paid parental leave. The law provides up to six weeks of partial wage replacement for workers spending time at home to care for a newborn child. Several states have followed suit and calls for a national paid leave mandate have attracted serious attention in recent years, appearing on platforms of several likely presidential nominees, the most generous of which propose 12 weeks of paid leave. Yet, there is limited evidence about the impact of the recent state laws that can inform predictions for the impact of a national policy.

There is an extensive literature on the economic impact of paid parental leave in other OECD countries (ex. Ruhm 1994, Lalive and Zweimuller 2009). However, the duration and generosity of paid leave in these countries is on such a different scale that it is difficult to extrapolate to the US context--the average duration of parental leave in OECD countries (excluding the US) is 57 weeks, at least partially paid in every case (Blau and Kahn 2013). The challenge of studying of US-style leave policies stems from the laws' narrow window of eligibility and the likelihood of time-varying impacts where time is measured in months rather than years. In this paper, I use monthly panel data from the Survey of Income and Program Participation (SIPP) to study the labor market impacts of paid leave laws in California (CA) and New Jersey (NJ) in the months directly proceeding and following a birth. My empirical strategy combines the flexibility of an event study with a differences-in-differences (DD) model. I find that short-duration paid leave increases labor force attachment of women who otherwise would have exited the labor force temporarily in the months around a birth. While short leaves are unlikely to alter the behavior of women who would otherwise exit the labor force for prolonged periods after a birth, reducing even brief interruptions may have long-term employment benefits for affected women.

I. US Policy Landscape

Parental leave laws have a brief history in the US. The Family and Medical Leave Act (FMLA) of 1993, the first and only national mandate, provides qualified workers at eligible firms up to 12 weeks of job-protected leave per year for medical reasons including the birth of a child.¹ The Department of Labor estimates that in 2012, 59 percent of US workers were both covered and eligible, and that 16 percent of those workers took an FMLA leave that year (Klerman et al. 2012). However, studies of FMLA find that the law has had little if any impact women's laborforce attachment (ex.Waldfogel 1999, Baum 2003, Han et al. 2009).

While there is no federal mandate for paid leave, the number of firms that voluntarily offer paid leave has increased substantially, especially for more-educated workers. In the early 1980s, less than 20% of all women reported using paid parental leave, with similar rates for women with and without a bachelor's degree.² By the late 2000s, 44 percent of women with at least a bachelor's degree report using paid parental leave compared to only 26 percent among women with less than a college degree.

California and New Jersey are among five states with long-standing temporary disability insurance (TDI) programs that include pregnancy as a "disability" eligible for leave with partial wage replacement.³ These TDI states have so far been the most likely to pass laws mandating paid leave for parents to "bond" with a newborn child.

California's Paid Family Leave (C-PFL) law went into effect in July 2004. The New Jersey Family Leave Insurance (NJ-FLI) law took effect July 2009. Both laws provide partial wage replacement of up to six weeks for time spent caring for sick family members or to "bond" with a newborn or an adopted child. C-PFL provides 55 percent of wages up to \$1067 per week, and NJ-FLI provides 66 percent of wages up to \$584 per week.⁴ In both states, the six weeks of paid family leave extend existing temporary disability leave of ten weeks for a normal pregnancy – four before birth and six after -- with the same

¹ FMLA coverage applies to employers with at least 50 employees within 75 miles of the worksite. Workers are eligible if they have worked for a covered employer for at least 12 months and at least 1250 hours in the past year. Health benefits are maintained under the same terms as if the employee continued work. Upon return from leave, workers are guaranteed their original or an equivalent job with equivalent pay and benefits. If an employee does not return to work, the employer is entitled to recoup benefit premiums paid on the employee's behalf. Both mothers and fathers are eligible for FMLA.

² These statistics are based on retrospective questions in SIPP topical modules asked of women who worked prior to their first birth.

These trends are discussed in more detail in my longer paper (Byker 2014).

³ The TDI states are California, Hawaii, New Jersey, New York, and Rhode Island.

 $[\]frac{4}{4}$ These were maximum weekly payments for 2013. The California cap is indexed to the state's average weekly wage. Unlike TDI benefits, paid family leave benefits are not taxed at the state level, but are still subject to federal taxes.

replacement rates. In both California and New Jersey paid parental leave benefits are financed entirely by mandatory payroll taxes levied on all private employees. Neither law provides job protection or continuation of fringe benefits. The wage replacement provided under the laws is to be used concurrently with leave granted either under FMLA or an employer's voluntary program.

II. Empirical Approach

A. Data: SIPP1996-2008

Detecting an impact, if any, of a six-week "bonding" leave requires an accurate estimate of the date of a birth event and monthly measures of labor-market outcomes. The SIPP is a series of nationally representative 48-month panel surveys with sample sizes large enough to study state-level policies. I construct a sample of all women aged 24 to 45 who give birth during one of the panels using the month of birth of each household member and variables that indicate the relationship of mothers to children to determine the month each woman gives birth. I use event-study regressions to describe the work trajectories of women from 24 months before to 24 months after a birth. This analysis shows three types of behavior around birth-women who stay attached, women who take prolonged exits,

and women who exit briefly and return to the labor force within a year after a birth.⁵ The 1996, 2001, 2004 and 2008 panels allow me to compare patterns of labor-force attachment before and after the California and New Jersey laws are implemented. The sample includes 1,260 women who gave birth in CA or NJ and 1,557 women who gave birth in Texas, Florida or New York who serve as a control group.

I estimate the impact of the laws on laborforce participation around a birth event and further decompose labor-force status to test for impacts on time spent "with a job" versus time spent looking for work. It is important to understand how paid-leave taking is recorded in the SIPP: A woman who separates from her employer to spend time at home with her child is both out of the labor force and does not have a job; but a woman who maintains her attachment to her employer and takes jobprotected parental leave is in the labor force and is coded by the SIPP as *having* a job even though she is not actually working. While neither woman is working, the woman on leave from her job maintains firm-specific human capital/tenure and avoids the search cost of looking for a new job. The woman who is not working because she exited the

⁵ Using the event-study methodology with SIPP data, Byker 2015 provides a detailed description of the patterns of labor supply around birth by mother's education and parity and studies how these patterns have evolved over the last three decades.

labor force forgoes this value by severing attachment to her employer.

If the laws increase leave-taking among women who would have stayed with their employers anyway, then we should see no change in labor-force participation or in the proportion of women with jobs around birth which is the likely explanation for the null impact of FMLA. On the other hand, an increase labor-force in participation, associated with an increase in women with a job around birth combined with less women looking for work in the months after birth, would be evidence that brief exits followed by reentry and search are being replaced by uninterrupted attachment to the labor-force.

B. Estimation: Event-Study Diff-in-Diff

State-level law changes of this type are analyzed using a differences-inoften differences strategy comparing outcomes between states with and without policy changes before and after implementation. In order to control for state-specific changes in outcomes not related to the policy, researchers often introduce a third difference comparing a "treated" group more likely to be affected by the policy to other unaffected groups (ex. Rossin-Slater et. al. 2013). In the case of this parental leave, usually involves comparing young women of childbearing age

to older women or to men. Results of these triple difference estimates can be difficult to interpret since they involve relative changes between treated and control groups. Because I use panel data, I am able to control for statespecific time trends by comparing women's outcomes after birth to their *own* outcomes prior to birth. To implement this event-study differences-in-differences strategy, I estimate the following equation

$$Y_{its} = \alpha_i + \lambda_t + \theta_s \times \lambda_t + \sum_{j=-24}^{24} \delta_j B_{it}^j$$
$$+ \sum \gamma_j B_{it}^j \times \lambda_t + \sum \pi_j B_{it}^j \times \theta_s$$
$$+ \sum \beta_j B_{it}^j \times Policy_{ts} + \epsilon_{its}$$

where Y_{its} is a labor-force outcome for woman *i* in living in state *s* in period *t*, α_i is set of individual fixed effects, λ_t year fixed effects, and θ_s state fixed effects.⁶ The B_{it}^j are a set of event-study dummy variables indicating each observation's timing relative to a birth, where *j* ranges from 24 months *before* to 24 months *after* a woman gives birth. *Policy_{it}* is an indicator equal to one if a paid parental leave law is in effect in period *t* in state *s*. The vector of coefficients β_j provides monthly estimates of the impact of the laws for each

⁶ State fixed effects are subsumed in the individual fixed effects as each woman is categorized by the state in which she gives birth.

month around and after birth in terms of changes from pre-birth levels.

III. Impact of NJ and CA Paid Leave Laws on Women's Labor-force Attachment

Panel A of Figure 1 shows that women giving birth in CA and NJ prior to the laws exhibit a sharper dip in participation from around six months before birth to around 4 months after, while women giving birth after the laws exhibit a shallower and smoother birth-related interruption pattern. The shaded area between the two event study plots is the simple difference between the pattern of participation around birth in CA and NJ before versus after the laws were enacted and is captured by the dashed line at the bottom of the panel which shows a "bump" of five to eight percentage points in the months centered around birth.

If this increase in participation around birth is due to national trends over time in birthrelated work patterns, then the before-after differences would falsely attribute the increase in labor-force participation to paid leave laws. Estimating equation (1) including women who give birth in other states allows me to control for trends in economic conditions that affected all states.

Panel B of Figure 1 repeats the simple difference line from panel A and adds a plot of

the coefficients on the policy interactions (β_i) from estimating equation (1).⁷ These DD estimates confirm that the laws have a statistically significant impact on labor-force participation in the six months centered on birth—a joint test of the significance of months -3 to +3 has a p-value=0.04. There are small and insignificant impacts prior to month -6 when women are not eligible for Based on the evidence of greater leave. access to paid leave among more-educated women in the absence of the laws, I estimate equation (1) separately for women with at least a bachelor's degree and women with less than a bachelor's degree and find that the results are driven exclusively by less-educated women (p-value for months -3 to +3 is 0.02 for less-than bachelor's mothers and 0.83 for mother's with at least a bachelors).⁸

Figure 2 decomposes the estimates for labor-force participation into impacts on months spent with a job and months spent looking for work for women with less than a bachelor's degree. These results show an increase in weeks spent "with a job" around birth and a decrease in weeks spend looking

⁷ Pre-birth months -24 to -18 are omitted as the pre-birth base of comparison; the results are robust to omitting other combinations of months.

⁸ Full results available in my longer paper. P-values calculated using the wild bootstrap procedure with 1000 replication as in Cameron et. al. 2008 are 0.13 for the full sample and 0.03 for the less-than-bachelor's sample.

for work six to 12 months after birth (p-value= 0.04), consistent with increased labor-force attachment around birth for less-educated women in response introduction the introduction of paid leave.

IV. Conclusion

My analysis suggests that US-style shortduration paid-leave has the potential to increase labor-force attachment around birth, particularly for less-educated women who have little access to paid leave in the absence of a mandate. The bump in labor-force participation around birth due to the new CA and NJ laws implies that brief labor-market separations are being replaced with time spent on job-protected leave and less time spent searching for new employment after a birth. Understanding whether this increased attachment is with the pre-birth employer and whether there are longer-term impacts on earnings requires further study and passage of time since implementation.

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FIGURE 1. IMPACT OF CA AND NJ PAID LEAVE LAWS ON WOMEN'S LFP AROUND BIRTH

Note: In Panel A, solid lines show the level of labor-force participation in the months relative to birth for women giving birth before and after laws were implemented in California and New Jersey. The dotted line plots the monthly differences between participation in the before and after policy periods. Panel B plots DD estimates, which are coefficients on the interaction between the month-relative-to-birth and an indicator for giving birth in a policy state after the law was enacted. These are the β_j coefficients from estimating equation (1) with the dependent variable an indicator for being in the labor force.



FIGURE 2. IMPACT OF PAID LEAVE ON LABOR-FORCE STATUS OF WOMEN WITH LESS THAN A BA DEGREE

Note: The figure plots DD estimates by month-relative-to-birth for the subsample of women with less than a bachelor's degree. These are the β_j coefficients from estimating equation (1) with the dependent variable an indicator for i) being "with a job" all weeks or ii) looking for work.