Did California's Paid Family Leave law affect mothers' time spent on work and childcare?

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Introduction

Family leave programs are designed to enable workers to take time from work in order to care for themselves or for family members, making a career and childrearing more compatible. Either implicitly or explicitly, most policies aim to make childbearing more attractive to working women (and thus increasing fertility), while at the same time keeping them close to the labor market. Studies outside the United States have shown that increasing paid family leave mandates result in increased leave-taking among mothers of infants (Kluve & Tamm, 2009; Baker & Milligan, 2008). In the United States, the Family and Medical Leave Act (FMLA) of 1993 provides up to 12 weeks of job-protected leave, but this is entirely unpaid. Studies of FMLA have not revealed significant effects on leave taking (Baum, 2003).

Rossin (2011) exploited the differences in FMLA implementation by state to study the effects of that law on infant health outcomes. While she found a significant relationship between FMLA and health of infants whose mothers were married and college-educated, she found no such relationship for the children of mothers who were unmarried and who had less than a college education. Rossin suggests that this was because unmarried women with lower educational attainment were less likely to be able to afford unpaid time off of work.

It is plausible that FMLA does not result in increased leave-taking among all women because of strict eligibility criteria and because it is entirely unpaid. FMLA covers about one half of all workers, and only a fifth of new mothers (Waldfogel, 2001; Ruhm, 1997). For

those who are eligible, many find it impossible to go three months without pay. For this reason, examining the effects of paid leave on American women is an important contribution.

As the first state in the country to pass a paid family leave law, California provides a natural experiment in which to examine the relationship between increased paid family leave and how parents of very young children spend their time. California's Paid Family Leave (PFL) law entitles any worker who pays into the State Disability Insurance (SDI) fund to 6 weeks of leave with income replacement at 55% of prior wages. California presents a unique opportunity to study the effects of paid leave on women in the United States. While it appears that unpaid leave mandates have little effect on the general population, we can exploit the timing of PFL in California to examine whether partial income replacement allows more women to spend time caring for infants.

I hypothesize that in the years after PFL implementation, mothers of infants (children less than 1 year of age) living in California will reduce their time spent working and increase time spent on childcare relative to mothers of older children and to all mothers outside California. This effect is expected to be stronger among those women most likely to be able to withstand a temporary income decrease: women with higher education and with a partner present.

Data

I use data from the American Time Use Survey (ATUS) to estimate changes in how mothers of very young children spend their time in response to California's Paid Family Leave law (PFL). The ATUS data is collected and processed by the U.S. Census Bureau

(American Time Use Survey User's Guide, 2008). Households that have completed their final month of the Current Population Survey (CPS) can be contacted to participate in the ATUS. One person who is at least age 15 is randomly selected from the household and asked questions about his or her time use on a given day. Data are collected through computer-assisted telephone interviewing (CATI), available in English or Spanish. The ATUS sampling was randomized by day of the week with half of the sample reporting about weekdays and half reporting about weekend days. Data files from the ATUS were linked with CPS data files. Response rates for the ATUS ranged from a high of 57.8 percent in 2003 to a low of 52.5 percent in 2007.

California's Paid Family Leave law (PFL) was signed into law in 2002, but did not take effect until July 2004. To examine differences in time use before and after PFL implementation, I merged ATUS data files from 2003, 2004 (Jan-June only), 2006, 2007 and 2008. I defined post-treatment years starting in 2006 in order to allow time for Californians to learn about the new law.

Employed adult women with a child under age 6 were included in the primary analysis (N=4586). Sampling weights were applied to account for oversampling of certain groups, as well as differential response rates by demographic characteristics and days of the week. Additionally, the ATUS is not uniformly distributed across the day of the week; unweighted estimates will overestimate time spent on weekend activities and underestimate time spent on weekday activities. The final weights indicate the number of person-days each respondent represents. In order to use geographic, demographic, employment and time use data, the Respondent, Activity summary, and ATUS-CPS files were combined.

Time use responses are coded into 17 major categories, each with 2 additional levels of detail. Coders assign a 6-digit classification code to each reported activity. The first two digits represent the major category; the next two digits the second-tier category; and the final two digits the third-tier category. For example, "putting a child to bed" would be coded as 030101. "Putting a child to bed" is an example of an activity given in the third-tier category, "Physical care for household children," which is under the second-tier category, "Caring For & Helping Household Children," which is under the major category, "Caring For & Helping Household Members."

03 Caring For & Helping Household Members
  01 Caring For & Helping HH Children
    01 Physical care for hh children
    02 Reading to/with hh children
    03 Playing with hh children, not sports
    …

Primary childcare was defined as any activity related to caring for household children, including physical and emotional care, activities relating to children's education, and activities related to children's health. This included all codes that began with 0301xx-0303xx, and excluded 0304xx- (which covered caring for adult household members). Respondents separately reported secondary childcare, which is care given while engaging in other activities (i.e. respondent indicates that children were under their supervision while primary activity was preparing dinner). Secondary childcare is not recorded when primary activity is childcare. Total childcare is simply the sum of primary and secondary childcare. Work was defined as the total number of minutes spent on work and work-related activities, including working at a job, searching and interviewing for a job, and engaging in other income-generating activities. This included all codes that began with 05, "Work & Work-Related Activities."

Methods

I used difference-in-difference-in-difference (DDD) analysis to examine time use among parents of very young children in California compared to other states before and after PFL. This analysis uses variation in time (pre-PFL vs. post-PFL), geography (California vs. other states), and target age group (mothers of infants vs. mothers of children 1-6) to estimate changes in time use in the population expected to respond to the law: Californian mothers of infants after 2004. I exploit the fact that California was the only state to introduce paid family leave during the time period specified. My pre-treatment group is all employed adult women with youngest child under age 6 in the 2003 and 2004 (Jan-June) files. Post-treatment respondents were those in the 2006 – 2008 files. Labor trends may differ between California and other states over the study period, so I include a third comparison of mothers of children under age 1 who are among the primary targets of PFL and mothers of children aged 1-6, who should be less likely to take advantage of PFL but should have similar labor market experiences as mothers of younger children.

I estimate the following equation:

$$Y_{isya} = \alpha + \beta_1 Post_y + \beta_2 CA_s + \beta_3 Young_a + \beta_4 Post_y*CA_s + \beta_5 Post_y*Young_a + \beta_6 CA_s*Young_a + \beta_7 CA_s*Young_a*Post_y + \varepsilon_{isya}$$

for each cell *i* in state *s* in year *y* for age group a. Y_{isya} is either minutes spent caring for household children or minutes spent on work and work-related activities in the day of interview. $Post_y$ is an indicator equal to 1 if the interview took place after PFL was implemented, and 0 otherwise. CA_s is an indicator equal to 1 if the respondent lived in CA, and 0 otherwise. $Young_a$ is an indicator equal to 1 if the respondent had a child under age 1,

and 0 otherwise. ε_{isya} is a cell-specific error term. The coefficient of interest is β_7, which measures the difference-in-difference-in-difference estimate of the effect of PFL on time use in California among parents of very young children. This was estimated for the whole sample, as well as among four subpopulations that could be expected to respond differently to PFL: college-educated women with and without a spouse or partner present and women with less than a college education with and without a spouse or partner present.

Results

Table 1 presents the difference-in-difference-in-difference technique used to estimate time spent on work or work-related activities. Panel A presents results for the target population: mothers of children under age 1. The difference-in-difference estimate did not reach statistical significance for women in California after 2004, but an estimate of -113.71 (SE = 66.39) suggests some decrease in time spent working in the target population. Panel B shows that there was not a significant difference in time spent working among mothers of slightly older children. When combined, these gave a difference-in-difference-in-difference estimate of -106.27 (SE = 74.53), although this did not reach statistical significance.

Table 2 shows the regression results of PFL on time spent on work and work-related activities. The first column shows the DDD results presented in Table 1. Columns 2-5 in Table 2 show regression results among the subpopulations of [1] college-educated, married/cohabiting women; [2] college-educated women who do not have a spouse or partner present; [3] women with less than a college education who are married/cohabiting; and [4] women with less than a college education who do not have a

spouse or partner present. PFL was significantly associated with decreased time spent on work in two subpopulations. Highly educated women with no partner present reduced their time spent working by 481.86 minutes (SE = 135.40), although small cell sizes prevent a precise estimate.

PFL was not significantly associated with time spent on primary childcare, but was significantly associated with increases in secondary and total childcare. Table 3 shows regression results of PFL on time spent on total childcare. PFL was associated with an increase of 213.60 minutes (SE = 101.19) spent on total childcare. This association was stronger among women with less than a college education, whether they had a spouse present (294.30, SE = 140.24) or not (347.79, SE = 148.59). The total childcare results were driven by changes in secondary childcare (data not shown).

Discussion

This is one of the first studies to examine how California's landmark Paid Family Leave law affected time use among mothers of very young children. The results suggest that there is a significant association between PFL in California and time spent caring for children among mothers of infants. This was particularly apparent among women with less than a college education. No significant changes were observed for time spent on primary childcare or work, but these results suggest that women with low education increased the amount of time that they had young children under their supervision.

The limited response to a leave mandate is consistent with past research on unpaid leave (Baum, 2003; Rossin, 2011). Although PFL provides some income replacement, the rate is lower than most European countries that have been the focus of paid leave studies.

With this in mind, it is surprising to see significant changes in work among college-educated women with no partners present, but not among those with partners present. This is likely due to small cell sizes.

Another possible explanation for the limited response to PFL is low awareness. Surveys done in California after the law was implemented found that only about 29% of respondents were aware of PFL (Appelbaum & Milkman, 2011). In a more recent survey of Californians who had experienced an event that made them eligible for PFL, about half were aware of the law (Appelbaum & Milkman, 2011). In all surveys, low-wage workers, Latinos, immigrants, young workers, and workers with low education were least likely to know about the law.

A major limitation of this study is that it does not examine maternity leave directly. The ATUS provides important information about how time was actually spent, but we do not know whether women were on maternity leave, were working reduced hours in order to care for their children, or were unwillingly working reduced hours due to furloughs or cutbacks.

This study also suffers from a lack of power to detect changes in our target population. While there are 4,586 employed mothers with children under 6 in the 4.5 ATUS years used, only 834 were the mothers of infants. Of those 834, only 71 were in California. This meant that our target population (mothers of infants living in California after 2004) consisted of just 40 women.

Further study is needed to examine the effects of PFL on maternity leave taken by using direct measures of paid and unpaid time off of work after the birth of a child. It will also be important to see whether women in other states with paid family leave laws (such

as New Jersey, which passed a PFL law in 2007) respond similarly. Right now, time use data is only available through 2010, just one year after New Jersey's PFL law went into effect. Once subsequent years are available, the current study can be replicated in NJ.

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Figures & Tables

Table 1. Difference-in-difference-in-difference estimate of time spent on work among employed mothers with youngest child under age 6. American Time Use Survey, 2003-2008.

Location/year	**Control period (2003-2004)**	**Treatment period (2006-2007)**	**Time difference for location**
[A] Children under 1 (treated group)			
CA (treated state)	283.12	214.13	-68.99
	(45.10)	(43.56)	(62.68)
Other states (control states)	200.41	245.14	44.73*
	(19.30)	(14.05)	(23.87)
Location difference at point in time	82.71*	-31.00	
	(48.52)	(45.34)	
Difference-in-difference	-113.71*		
	(66.39)		
[B] Children 1-6 (control group)			
CA (treated state)	252.83	273.25	20.41
	(25.14)	(20.14)	(32.20)
Other states (control states)	250.05	277.90	27.85**
	(8.96)	(6.87)	(11.30)
Location difference at point in time	2.78	-4.66	
	(26.62)	(21.25)	
Difference-in-difference	-7.44		
	(26.62)		
DDD	-106.27		
	(74.53)		

Note: Cells display the mean (SD) minutes spent on work and work-related activities
*p<0.10
**p<0.05
Source: Weighted ATUS data

Table 2. DDD estimate of time spent on work by subgroups. ATUS, 2003-2008.

	DDD whole sample	DDD college-educated & partner present	DDD college-educated & no partner present	DDD less than college & partner present	DDD less than college & no partner present
Time spent on work Mean (SD)	-106.27 (74.53)	-80.27 (102.96)	-481.86 (135.40)**	-216.25 (135.31)	-53.27 (144.45)
N	4586	1956	335	1393	902

Significance levels: **p<0.001
Source: Weighted ATUS data

Table 3. DDD estimate of time spent on total childcare, by subgroups. ATUS, 2003-2008.

	DDD whole sample	DDD college-educated & partner present	DDD college-educated & no partner present	DDD less than college & partner present	DDD less than college & no partner present
Time spent on childcare Mean (SD)	213.60 (101.19)*	181.39 (128.92)	156.19 (309.93)	294.30 (140.24)*	347.79 (148.59)*
N	4586	1956	335	1393	902

Significance levels: *p<0.05
Source: Weighted ATUS data