Appendix H: FMLA and paid FML research findings

The research findings of a select group of studies are detailed below. We begin with an implementation study and then present the articles in chronological order.

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Klerman, et al. (2012). Department of Labor 2012 Worksite and Employee Surveys

In 2011, the Department of Labor commissioned Worksite and Employee Surveys to describe employer and employee experiences (excluding self-employed workers) with family leave and the FMLA. Between February and June of 2012, 1,812 worksites and 2,852 employees were surveyed (a 21% response rate for the Worksite Survey and a 15% response rate for the Employee Survey).¹

According to the survey, 59% of employees are eligible² for FMLA leave. Overall, the survey found that FMLA-eligible workers are more likely to take leave, receive pay or health insurance benefits while on leave, and have higher job retention and stability than non-eligible workers. The survey also found that while only a small proportion of FMLA-eligible employees report that they needed but did not take leave, almost half of these workers said that they could not afford unpaid leave, and over half said that they compensated for the lack of leave by forgoing or postponing medical treatment. Lastly, according to worksite reports, in general the FMLA has not imposed an undue burden on employers. Details of these findings are below.

Leave-taking

FMLA-eligible workers were more likely to take leave than non-eligible employees, most commonly for their own illness. A small proportion of FMLA-eligible workers reported that they needed but did not take leave; however, among these workers, almost half did not take leave because they could not afford it.

- FMLA-eligible employees were significantly more likely to take any leave (paid or unpaid) in the past 12 months (16%) than non-eligible employees (10%). However, when the leave-taking rates of FMLA-eligible employees are compared to the leave-taking rates of
employees who are not eligible because they do not work for a covered worksite, but have similar tenure and hours-worked, the difference between the two groups is no longer statistically significant. The authors interpret this finding as an indication that much of the difference in leave-taking between all FMLA-eligible and all FMLA-eligible employees may be due to underlying characteristics of the two populations. However, given that the result is borderline statistically significant (p<.10), further analyses is warranted.

- Among all employees who took leave in the past 12 months, the most common medical reason for the most recent leave was the employee’s own illness (57%), followed by a reason related to a new child (22%) and a family member’s health condition (20%).
- Among FMLA-eligible employees, 4.8% reported that they needed but did not take leave in the past 12 months. This finding was not statistically significantly different from non-FMLA eligible employees (4.4%).
- Among FMLA-eligible employees who needed but did not take leave in the past 12 months, 46% reported they did not take leave because they couldn’t afford to take an unpaid leave and 17% said it was because they thought they might lose their job. The remaining 37% of employees reported numerous other reasons.

Family and worker economic stability
FMLA-eligible workers are more likely to receive pay and continued health benefits while on leave than non-eligible workers. Findings also suggest that the FMLA may improve job retention and stability.

Pay and benefits while on leave:
- Based on the worksite survey, FMLA covered worksites are significantly less likely to provide no pay (23%) compared to non-FMLA covered worksites (54%). In addition, FMLA covered worksites are significantly more likely to continue health benefits while employees are on leave for a FMLA-qualifying reason (94%) compared to non-FMLA covered worksites (46%). Since the FMLA requires that employers continue health benefits, the finding that 6% of FMLA covered worksites report that they do not continue health benefits while employees are on leave for a FMLA-qualifying reason may indicate a need for increased employer education and employment efforts.
- Based on the employee survey, FMLA-eligible workers are more likely to have paid leave than non-FMLA eligible workers. Significantly more FMLA eligible employees who took leave in the past 12 or 18 months received some pay while on leave (78%) compared to non-FMLA eligible employees (47%). Among FMLA eligible employees who took leave in the past 18 months, 55% received the same amount as regular pay while on leave (statistically significantly higher than 46% of all leave-takers) and 22% received no pay (statistically significantly lower than 34% of all leave-takers). Eligible employees used many sources of pay during their leaves, including paid time off (used by 67.8% of eligible employees on leave), sick leave (47%), personal leave (34%), vacation leave (18%), maternity leave (13%) and paternity leave (9%).
- Among workers who took leave in the past 12 or 18 months, significantly more FMLA-eligible employees reported that they were able to keep all their health insurance benefits while on leave (90%) compared to non-FMLA eligible employees (61%).

Financial burden while on leave:
- Among all workers who took leave in the past 12 or 18 months and received partial or no pay while on leave, in order to cover lost wages during their leave, 84% limited their
spending, 48% used savings earmarked for this situation, 37% used savings earmarked for something else, 36% delayed paying their bills, 31% cut their leave time short, 30% borrowed money, and 15% went on public assistance. There were no statistically significant differences between FMLA-eligible and non-eligible employees in the strategies used; however, significantly fewer FMLA-eligible employees who received partial or no pay while on leave reported that making ends meet during leave was “very difficult” (23%) compared to non-FMLA eligible employees (37%). Because of the study design, it cannot be determined if this difference is due to the FMLA or due to different characteristics in the FMLA-eligible and non-eligible populations.

**Employment stability:**
Findings from the FMLA survey suggest that the FMLA may improve job retention and stability.

- Among employees who took leave in the past 12 or 18 months, statistically significantly more FMLA-eligible workers returned to work for the same employer after leave (94%) than non-FMLA eligible workers (83%). Moreover, statistically significantly fewer FMLA-eligible workers did not return to work at all after leave (5%) compared to non-FMLA eligible workers (12%).
- Upon returning to the same employer after leave, 95% of employees reported returning to the same position; this was the same for both FMLA-eligible and non-eligible employees.
- Statistically significantly fewer FMLA-eligible employees reported that they lost their job as a result of taking leave (1%) compared to non-FMLA eligible employees (15%).

**Work-family balance:**
Inability to take leave may have health consequences for workers. Although only a small percent of FMLA-eligible workers reported that they needed but did not take leave, over half of these workers reported forgoing or postponing medical treatment.

- Five percent of FMLA-eligible employees needed but did not take leave in the past 12 months. These employees used a number of alternative strategies to balance work and family needs. Over half either went without medical treatment (52%) or postponed medical treatment (56%). For 44%, someone else in the family took leave, and for 64%, someone else took over caregiving responsibilities. Thirty two percent and 22% paid for childcare and eldercare, respectively.

**Employer burden:**
The FMLA has not caused undue burden for employers.

- Among FMLA-covered worksites, 85% report that complying with the FMLA is either somewhat easy, very easy, or makes no noticeable difference.
- Among FMLA-covered worksites, a majority reported no change in administrative costs (65%), costs of continuing benefits during leave (67%) or hiring/training costs (74%) associated with complying with the FMLA (30%, 28% and 21% reported increased costs, respectively).
- Among FMLA-covered worksites, 91% reported that complying with the FMLA had either a very positive effect, a somewhat positive effect or no noticeable effect on employee profitability, turnover, morale or business profitability.
- Among FMLA-covered worksites, about 60% reported that it was somewhat or very difficult to deal with unplanned episodic or intermittent leave or unscheduled leave of any duration. Less than half reported that it was somewhat or very difficult to deal with planned episodic or intermittent leave, or planned short- or long-term leave (36%, 25%
and 45%, respectively). These findings suggest that planned FMLA leave does not put a large burden on employers, but short-term unplanned leave may be more challenging.

**Waldfogel (1999). The impacts of the Family and Medical Leave Act**
This study examined the effects of the FMLA on leave coverage overall, as well as on mothers’ leave-taking, employment and wages. The study used two descriptive surveys: the Bureau of Labor Statistics’ Employee Benefits Survey from 1988 to 1995 and the 1994 Westat survey of firms conducted for the Family and Medical Leave Commission. To investigate these effects, the study took advantage of the natural experiment arising from state differences in pre-FMLA maternity leave policies. Prior to the FMLA, 11 states and Washington, D.C. had maternity leave laws, while 39 states did not. Using this natural variation, the author estimated a series of difference-in-difference (DD) and difference-in-difference-in-difference (DDD) models. Specifically, the author compared changes in outcomes before vs. after the enactment of the FMLA in states with vs. without prior maternity leave laws, for treatment groups (women with children or infants) vs. comparison groups (childless women, older women or men).

Overall, the FMLA is associated with increased leave coverage (descriptive) as well as increased leave-taking, particularly for mothers with infants working in medium-sized firms. However, it is not associated with any clear changes in mothers’ employment or wages. Below are additional details:

**Leave coverage**
The descriptive analysis of leave coverage suggests that the passage of the FMLA in 1993 was associated with expanded leave coverage.

- Using data from 1988 to 1995, the study found that the percentage of full-time workers whose employers provided maternity or paternity leave (paid or unpaid) increased dramatically – by 20 to 40 percentage points – between 1990/1991 (right before the FMLA was enacted) and 1993/1994 (at the time of, and after the FMLA’s enactment). This increase was found for all firm sizes: small, medium and large. The author hypothesizes that the most plausible explanation for these stark jumps in leave coverage is the enactment of the FMLA, although this is not causally proven.

**Employment**
The FMLA was not associated with any clear positive or negative effects on mothers’ employment. These results were not examined by firm size.

**Wages**
The FMLA’s associations with changes in mothers’ wages were mixed, and varied by firm size. Among mothers with children working in large or medium-sized firms, which are covered by the FMLA coverage requirements, there were no consistent or conclusive effects on wages.

**Han, et al. (2009). Parental leave policies and parents’ employment and leave-taking**
This study assessed the effects of the FMLA and state parental leave legislation on parents’ employment and leave-taking immediately after the birth of a child, using Current Population Survey data. Authors examined outcomes for both mothers and fathers between 1987 and 2004. The study included three types of parental leave laws: the FMLA, state unpaid parental leave legislation (in seven states) and paid leave through state Temporary Disability Insurance (TDI) programs (in five states). The study used a DD model that examined (1) the difference in labor force outcomes (employment and leave-taking) for new parents in states with vs. without
parental leave legislation, and compared this to (2) the difference in labor force outcomes for soon-to-be parents (who would have a birth in about one year) in states with vs. without parental leave legislation. The new parents were considered the treatment group, that is, potentially eligible for leave under parental leave legislation, because they had a new baby (eligibility was not based on actual job characteristics). Soon-to-be parents were considered the comparison group because they likely had similar labor market characteristics as the treatment group, but were not yet eligible to take leave for a new child. Authors ran both probit and linear regression models, which yielded similar marginal effects. Results from the linear regression models are reported because they are easier to interpret.

Overall, this study found that parental leave legislation is significantly associated with increased leave-taking for mothers and, to a lesser extent, fathers, but it is not associated with parents’ employment. Fertility data were only available for fathers who were married to and cohabiting with the child’s mother. Therefore, estimation of paternal leave-taking and employment does not apply to single or non-cohabitating fathers. Detailed findings are as follows:

**Leave-taking outcomes:**
- Mothers: Presence of federal and state parental leave laws is statistically significantly associated with increased maternal leave-taking during the birth month and the following month. If state or federal parental leave legislation is present in their state, working mothers are about five percentage points more likely to be on leave during the birth month (a 13% increase over the baseline rate of 42%, p<0.001), and about 9 percentage points during the following month (a 16% increase over the baseline rate of 55%, p<0.001), compared to if leave legislation is not present.
- Fathers: Presence of federal and state parental leave entitlements are statistically significantly associated with increased paternal leave-taking during the birth month only. Working fathers (who are married to and cohabit with the child’s mother) are about four percentage points more likely to be on leave during the birth month if parental leave legislation applies in their state, which is a 54% increase over the baseline rate of 7%, p<0.01.

**Employment outcomes**
- Mothers: parental leave entitlements are not statistically significantly associated with changes in maternal employment.
- Fathers: parental leave entitlements are not statistically significantly associated with changes in paternal employment for fathers who are married to and cohabit with the child’s mother.

This study examined the effects of potential eligibility for unpaid FMLA maternity leave on child birth outcomes, infant mortality and birth parity using data from the National Center for Health Statistics Vital Statistics and the County Business Patterns. The study first used a DD model, which examined the difference in health outcomes of children born before vs. after the passage of the FMLA in 1993, in states that had prior maternity leave policies (comparison states) vs. states that did not (treatment states). However, the preferred model was a DDD model, which examined the difference in health outcomes of children born to mothers who were likely FMLA-eligible vs. likely FMLA-ineligible, before vs. after the passage of the FMLA in 1993, in comparison states vs. treatment states. Overall, the study found that the FMLA is associated with positive...
effects on child birth outcomes and infant mortality. Detailed findings are as follows:

**Birth outcomes:**
- Based on the DDD model, the FMLA is associated with small, but statistically significant, positive birth outcomes (higher birth weight, p<0.001, and gestation length, p<0.05) and a lower likelihood of premature birth (p<0.05).\(^9\)
- No statistically significant effects were found on the reduction of risk factors during pregnancy, incidence of complications during labor or on births with congenital anomalies.

**Infant mortality outcomes:**
- Based on the DDD model, the FMLA is weakly associated with a reduction in infant mortality rates for the whole sample (p<0.10). This effect was greater for certain subgroups within the total sample.

**Parity of birth outcomes:**
- Based on the DDD model, the FMLA is statistically significantly associated with an increase in the rate of first parity births (first-time births) and a decrease in the rate of later parity births (second-time or later births) among the whole sample (p<0.05). However, in subgroup analyses, this effect was only significant for certain subgroups within the total sample. The FMLA was not associated with significant effects on overall fertility (the number of births in each county by year).

**Rossin-Slater, et al. (2013). The effects of California’s paid family leave program on mothers’ leave-taking and subsequent labor market outcomes**

In 2002, California passed the first paid FML program in the nation. This study examined the effects of the California paid FML program, implemented in July 2004, on mothers’ maternity leave-taking, employment, work hours and wages.\(^6\) To evaluate these effects, the study used a DD design that examined changes in leave-taking and employment outcomes for California working mothers of infants before and after California paid FML implementation, compared to corresponding differences for comparison groups of mothers and childless women less likely to be affected by California paid FML.

Overall, the study found that the California paid FML is associated with an increase in maternity leave-taking, maternal work hours and wages, but no such substantial differences in employment.

**Specifically, results for mothers of infants include:**
- Leave-taking: The California paid FML is associated with an increase in maternity leave-taking\(^3\) (the analysis used four different comparison groups to test the robustness of results and the increase in leave-taking was statistically significant in all cases, p<0.001).
- Employment: No significant associations were found between the California paid FML program and two maternal short-term employment outcomes: 1) employed last week and 2) not employed, which includes unemployed and not in the labor force.

**Results for employed mothers whose children are one, two, or three:**
- Work hours: The California paid FML is associated with a statistically significant increase in work hours for employed mothers with children ages one to three (for mothers of children age one p<0.1, for mothers of children age two and age three p<0.05). The
program is estimated to increase these groups weekly work hours by around 10-17% from the pre-baseline average.

- Wages: The California paid FML is associated with a statistically significant increase in wages, primarily as a result of higher work hours for employed mothers with children ages one to three.

Das & Polacheck (2015). Unanticipated effects of California’s paid family leave program
This study examined the effects of the California paid FML program, implemented in July 2004, on women’s labor force participation rates, unemployment rates and unemployment duration using a quadruple DD approach and CPS data from 1996-2009.10 The authors compared outcomes by gender, age group and geographic location both before and after California paid FML implementation. The authors did not estimate the models for parents.

Compared to the rest of the country and other California subgroups, young Californian women showed a 1.37 percentage point increase in labor force participation (women in the labor force may be employed or unemployed; the CPS measures labor force by status in the previous week) after the policy’s implementation in 2004 (p<0.01). Although this study and the Rossin-Slater et al. (2013) study both use the same data set over roughly the same time period, the positive effect of paid FML on young women’s labor force participation is not directly comparable to the Rossin-Slater et al. (2013) null employment findings since that study focused only on mothers and considered employment rather than labor force participation (combined employment and unemployment).

The unemployment rate and unemployment duration for young Californian women when compared to the rest of the country and other California subgroups also increased, by 1.48 percentage points (p<0.01) and 1.57 weeks (p<0.01), respectively, after policy implementation. The estimate of the impact of paid FML on unemployment rate ranged from 0.3 to 1.5 percentage points depending on the model specification.

For example, the authors estimated the same models with samples limited only to women or only for young women and men. They found that there was a significant, positive effect on young Californian women’s labor force participation rate when compared to older women in California and non-California women (p<0.01) after the policy’s implementation. Young Californian women exhibited a 0.35 percentage point increase in unemployment rate (p<0.05) and a 0.73 week increase in unemployment duration (p<0.10) after the program’s implementation, relative to older women in California and non-California women.

In the age model, the unemployment rate and unemployment duration significantly increased for young women in California in comparison to young men in California and young men and women outside of California (p<0.01).

Using the Survey of Income and Program Participation (SIPP) panel data from 1996-2008, the author used an event-study DD strategy to estimate the work trajectories of women 24 months before and 24 months after a birth, both before and after the implementation of a California and New Jersey’s paid FML programs relative to Texas, Florida and New York.11 The model controlled for state-specific trends, and individual characteristics.
Examining mothers’ labor force participation patterns only within California and New Jersey, labor force participation increased after paid FML by 5 to 8 percentage points in the months centered around the birth (three months before and three months after) (p<0.05). The DD estimates comparing months of labor force participation in California and New Jersey before and after paid FML to the three comparison states without paid FML confirm a statistically significant increase in mothers’ labor force participation in the six months centered on birth (three months before and three months after) (p<.05).

Lichtman-Sadot & Bell (2017). Child health in elementary school following California’s paid family leave program
This study used three cohorts from the Early Childhood Longitudinal Study (ECLS) (the 1998-1999 and 2010-2011 kindergarten surveys and ECLS-B 2001 birth cohort) from the National Center for Education Statistics (NCES) to assess the impact of California’s paid FML policy on children’s health outcomes in early elementary school. The authors employed a DD strategy to compare health outcomes of children ages five and six born in California pre and post paid FML implementation. Data from children outside of California during the study periods comprise the comparison group.

The analysis found evidence that children born after FML implementation in California (treatment group) compared to California children born before paid FML had a lower probability of negative health outcomes than children outside of California between the two study periods:
- The risk of children being overweight fell by 4.1 percentage points (p<0.01).
- The risk of a diagnosis of ADHD fell by 0.7 percentage points (p<0.01).
- The risk of a diagnosis of hearing problems decreased by 2.4 percentage points (p<0.01).
- The risk of a diagnosis of communication problems dropped by 1.1 percentage points (p<0.05).
- There was a 2.7 percentage point decrease in the probability of frequent ear infections (p<0.01).
- Parents were more likely to positively assess their children’s general health scale (0.56 of a standard deviation increase on a standardized health score) (p<0.01).

Children in the treatment group (paid FML exposure) had 31% lower odds of being overweight, 18% reduction in the risk of frequent ear infections and 58% lower odds of ADHD in comparison to children who did not experience the treatment (no paid FML exposure).

Overall, most statistically significant health outcome improvements post-California paid FML implementation were driven by disadvantaged children – specifically, those with low SES ranking and low maternal educational attainment. Further, paid FML decreased the probability of diagnosis-dependent conditions (ADHD, hearing and communication problems and frequent ear infections; all statistically significant) more among children for whom English was a first language.

The authors used longitudinal, aggregate state-level data spanning from 1999-2008 for all 50 states and the District of Columbia to study the impact of California paid FML on nursing home usage. Nursing home utilization – the outcome measure – equals the proportion of a state’s older population that resides in a nursing home at any time during a calendar year. The empirical method included a DD regression model to estimate the effect of California’s paid FML program.
The DD model contrasted nursing home utilization in California before and after the treatment period for each comparison group of empirically matched states. The model controlled for many variables related to the supply and demand of nursing home usage, state economic characteristics (reserve funds, per capita income, child poverty rate) and the proportion of the 65+ population that is female, older ages, black, Hispanic, and other racial group.

Using the “California cluster” states as a comparison group (states with similar population characteristics to California), the authors found that the implementation of California paid FML led to a statistically significant decrease in nursing home utilization amongst the elderly by 0.65 percentage points (two-thirds of a percentage point, p<0.001). The authors note that, “while this reduction may appear small in size, its relative magnitude is substantial when compared to baseline nursing home utilization levels” (p. 53). Since 5.7% of California’s elderly utilized nursing homes in 2003 (the year before California paid FML implementation), this represents an 11% relative decline in nursing home utilization after the implementation of paid FML.

Alternate model specifications groups produce similar results: paid FML reduced the proportion of the elderly in nursing homes by 0.5 to 0.72 percentage points (p<0.001), a relative decline in the share of older adults in nursing homes between 9-13%.

This study used a DD approach to examine changes in breastfeeding practices before and after the implementation of paid FML policies in California and New Jersey compared to other states without paid FML policies using the 2003-2015 National Immunization Survey (NIS). The treatment group was defined as children born in California and New Jersey before and after the respective states’ paid FML program was implemented.

Overall, paid FML implementation in California and New Jersey increased the share of children exclusively breastfed at six months (1.3 percentage points, p<.001). Differences in other breastfeeding outcomes were not statistically significant.
Endnotes and citations


2. ‘Eligible employees’ refer to employees who work for a FMLA covered worksite and meet FMLA eligibility criteria. An FMLA covered worksite is any public agency, any public or private elementary or secondary school, or all private firms that employ at least 50 workers within 75 miles. To be eligible for FMLA leave, and employee must work for a covered firm or agency, have 12 months of tenure with the firm, and have worked for the firm/agency for at least 1,250 hours in the past year.


5. This finding can be interpreted as follows: The difference in maternal leave-taking between female workers in states with parental leave policies compared to female workers in states without parental leave policies was significantly greater for new mothers (who should be affected by parental leave legislation) than for soon-to-be mothers (who should not yet be affected by the presence of parental leave legislation). This finding shows how parental leave policies differentially affect the leave-taking of new mothers.


7. The study examined the number of births that were first-time births to mothers compared to the number that were second-time births or higher. Second or later births are associated with better health outcomes due to a better in-utero environment, and therefore may mediate the relationship between child health outcomes and the FMLA.

8. These findings can be interpreted as follows, as an example: Examining the change in birth weight before and after the passage of the FMLA in states that did not have prior leave laws (and so should be more affected by the FMLA) compared to the change in birth weight before and after the passage of the FMLA in states that did have prior leave laws (and so should be less affected by the FMLA), the authors found that this state-level difference in pre/post-FMLA changes in birth weight is statistically significantly more positive (a greater increase) for the children of mothers who are likely FMLA-eligible, than for the children of mothers who are not likely FMLA-eligible.

9. This finding can be interpreted as follows: There was a statistically significant greater increase in maternal leave-taking after (compared to before) the enactment of the CA paid FML for working mothers with infants or young children (who should be more affected by the CA paid FML program) than for working mothers with older children, childless working women, or working men (who should be less affected by the CA paid FML program).


