

Appendix G: Limitations of FMLA and paid FML research evidence

The research evidence base has some limitations, beyond the lack of research on racial/ethnic disparities. The limitations 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 capture employer and employee experiences with family leave and the FMLA.¹ Between February and June of 2012, 1,812 worksites and 2,852 employees were surveyed.

- The study is a cross-sectional snapshot of employers’ and employees’ FMLA experiences at a single point in time. While it can be compared to the 1995 and 2000 surveys, it can only be used for descriptive research and cannot be used to draw causal inferences.
- The surveys response rates were low: 15% for the employee survey and 21% for the Worksite Survey.
- The report presents all statistics as an aggregate level, so it is not possible to link separate statistics to the same individual or firm. For example, while the report describes the percent of unmarried employees who took leave, as well as the percent of leave-takers with partial or no pay while on leave, these two statistics are reported at the aggregate level so it is not possible to know the percent of unmarried leave-takers with partial or no pay while on leave. The data has been released publicly, so it is now possible to conduct more detailed analyses.
- Employee and employer responses are not linked, so it is not possible to examine whether the experience of an employee varies by his/her employer’s characteristics.
- The employer survey only represents private employers, but not government agencies or public schools.

Waldfoegel. (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.² While the study used rigorous analytic methods, including Difference-in-Difference (DD) and Difference-in-Difference-in-Difference (DDD) models, there were limitations associated with the data source including:

- The data used, the Current Population Survey (CPS), did not contain the information necessary to determine whether a mother was eligible under FMLA criteria. Therefore, the author could not estimate an exact measure of FMLA eligibility. In addition, at the time of the study, the CPS measured firm size using a categorical variable that does not match the exact FMLA eligibility criteria. For instance, in the CPS, small firms include 25 to 99 employees yet the FMLA applies only to employers with at least 50 employees.
- The CPS did not contain information on FMLA leave usage specifically. Instead, leave-taking was defined as the percentage of "employees who have a job but are absent from work during the CPS survey week." While this measure may account for some types of leave-taking that qualify under the FMLA, other reasons for absence from work that do not qualify for FMLA leave may also be included in this category. Also, the data did not measure whether leave is unpaid or paid.

Han, et al. (2009) *Parental leave policies and parents' employment and leave-taking*

This study assessed the effects of federal and state parental leave legislation on parents' employment and leave-taking immediately after the birth of a child.³ 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). While the study used a rigorous DD approach to assess the selected outcomes, there were still data and design limitations that are important to keep in mind when interpreting results. These include:

- For all three types of leave legislation (the FMLA, state leave laws and state TDI programs), the data did not contain the information necessary to determine whether a parent was eligible for leave according to federal or state criteria. Therefore, parents were coded as "potentially eligible" if they had a child born after the enactment date of the specific legislation. This coding is more representative of who might need parental leave, rather than who is actually able to use it. The authors acknowledge that this limitation will cause their analyses to underestimate the effects on parents who are truly eligible.
- Although a main research question of the study concerned the effect of parental leave legislation on maternity and paternity leave-taking, the data did not contain an explicit measure of maternity or paternity leave. As a proxy, the authors used the category "employed but absent for other reasons (leave for other reasons)," in which parents were with a job but not at work for reasons besides vacation, own illness, bad weather, labor dispute or layoff, or because they were waiting for a new job to begin. While this measure may account for maternity and paternity leave-taking, other reasons for absence from work may also be included in this category and could confound results.
- The study only examined the first three to four months after birth, and so does not capture any longer-term effects that parental leave laws may have had, particularly on employment outcomes.
- In 1994, the CPS was redesigned, resulting in a slight increase in reported employment rates for women. This change may make it difficult to isolate employment effects of the FMLA, which was enacted around the same time.
- The data only contained information about paternity leave-taking and employment for fathers who were married to and living with the child's mother. The data did not allow for

the consistent identification of cohabiters, due to changes in the CPS. Therefore, estimations of paternal leave-taking and employment do not apply to single or non-cohabitating fathers. Because fathers who are married to and living with the child's mother may be likely to take more leave than fathers who are not, the study may overestimate the effects of parental leave laws on paternity leave-taking.

Rossin-Slater. (2011). *The effects of maternity leave on children's birth and infant health outcomes*

This study⁴ examined the effects of unpaid FMLA maternity leave on child birth outcomes, infant mortality and birth parity.⁵ While the study used rigorous analytic methods, including DD and DDD models, there were limitations including:

- Due to data limitations, the author was not able to link both employment variables and child health outcomes to an individual mother's record. Instead, the unit of analysis consisted of county-year groupings of predicted FMLA eligibility with county-year births. Information about firm size from the County Business Patterns was used to estimate the likelihood (conditional probability) that a person in a given county and year is employed in a firm with 50 or more employees (implying FMLA eligibility). Each county-year grouping was then assigned a conditional probability of FMLA eligibility and linked to county-year data on infant mortality rates and birth outcomes from the National Center for Health Statistics Vital Statistics.⁶ Therefore, the data do not allow for a particular birth outcome to be linked to a particular mother with known employment data. Notably, the data did not allow for an estimation of the likelihood that a woman (or more specifically a mother) in a given county and year is employed in a firm with 50 or more employees.
- The data allow only an approximation of FMLA eligibility, not FMLA take-up. Therefore, the study examines the impact of estimated FMLA eligibility, rather than the impact of actual leave take up.

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. California paid FML provides partial wage replacement to employees who need time off from work to care for a new child (birth, adoption, foster) or a seriously ill family member. California paid FML covers all private-sector workers who earned more than \$300 total in the past year (so virtually all private sector workers). This study examined the effects of the California paid FML program, implemented in July 2004, on working mothers' maternity leave-taking, employment, work hours and wages using a DD model.⁷

The dataset used, the March Current Population Survey (CPS), has several limitations. It does not indicate whether mothers were employed during pregnancy and around the time of childbirth and does not offer precise information about the childbirth dates. These limitations impede direct identification of which mothers were affected by California paid FML. The data also could not distinguish which type of maternity leave was taken (California paid FML or employer-sponsored, for example) so the researchers examined the use of all types of maternity leave and extrapolated that changes overall are due to the implementation of the California paid FML.

Das & Polachek. (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 DD model and CPS data from 1996-2009.⁸ This study focuses on women facing potential unintended unemployment consequences (e.g. women conducting a job search but unable to find work) that could potentially be due to discrimination against younger workers who are more likely to have children.

One limitation for this study is that its findings are consistent with discrimination against young women, but it does not include a variable to actually measure discrimination. There are likely omitted variables. Controls not included in this study, but included in other paid leave studies, include race/ethnicity and age of youngest child.

Byker. (2016). Paid parental leave laws in the United States: Does short-duration leave affect women's labor-force attachment?

This article sought to quantify the labor force dynamics of women 24 months before and after a birth in California and New Jersey, before and after implementation of each state's respective paid leave program compared to three states who did not have paid FML.⁹ Using a longitudinal panel study has advantages over other studies (that use the CPS), since it is possible to control for state-specific time trends in mothers' employment. A limitation of this study was the fact that there was no variable to measure whether women in the sample were eligible for or actually took leave. Thus, estimates can be understood as intent-to-treat estimates because we are unable to precisely identify who was treated by the policy.

Lichtman-Sadot & Bell. (2017). Child health in elementary school following California's Paid Family Leave program

This study assessed whether California paid FML affected children's health outcomes in early elementary school using the Early Childhood Longitudinal Study (ECLS), a nationally representative sample.¹⁰ A rigorous DD model compared health conditions of children born in California pre- and post-FML implementation relative to children outside of California, controlling for economic and familial trends. Several of the study's limitations were related to its data source, including:

- The ECLS-K includes data about the child's state of residence while in kindergarten but does not include information about the child's state of birth. This could contribute to a measurement error in the treatment variable.
- The ECLS-K does not have questions about the mother's labor force participation before childbirth, nor the length of maternity leave taken post-childbirth. This could also contribute to measurement error in the treatment variable.
- All health outcomes (except obesity) in the ECLS-K are parent-reported; thus, there is possible self-reporting bias.
- The ECLS measures leave usage as "intent-to-treat," and therefore does not measure which parents actually took leave.
- The authors suggest that improvements in health outcomes are based on changes in breast-feeding and mothers' employment; however, they cannot test this due to data limitations.

Additionally, the authors removed 7,000 cases from the sample due to missing data. While they note that results were not sensitive to this change, they do not disclose the specific test used.

Finally, hearing data from the Directors of Speech and Hearing Problems in the State Health and Welfare Agencies (DSHPSHWA) and CDC Early Hearing Detection and Intervention (EHDI) were only available from 1999 onwards. Since the ECLS-K1999 covers kindergarteners born from late

1992 to 1993, it is only possible to perform this robustness check for the ECLS-K2011 data.

Arora & Wolf. (2018). Does Paid Family Leave reduce nursing home use? The California experience

Arora and Wolf evaluated whether California paid FML influenced nursing home usage in California from 1999 to 2008.¹¹ The study focused on nursing homes since they account for the largest proportion of long-term care costs in the U.S. Outcomes were measured by nursing home utilization (defined as the proportion of a state's older population that resides in a nursing home at any time during the calendar year) before and after California paid FML implementation. However, if an older adult was assessed more than once in a year, only a single assessment was recorded. While this made the nursing home utilization measure more comprehensive than point-in-time estimates, it may have been helpful to verify the study's findings with a larger sample size and a longer study period. The authors purport that their models likely underestimate true policy impact.

Using data obtained from the Center for Medicare and Medicaid Services (CMS) Nursing Home Compendium means that the study was limited to CMS certified nursing homes. This is a minor data limitation since in 2004, around 98.5% of all nursing facilities and 98.8% of all nursing home beds were CMS certified.

Another limitation is that, since the data do not capture caregiver practices outside of nursing homes, the authors were unable to demonstrate that the reduction of nursing home occupancy was directly linked to the caregiving efforts of employed family members. The authors offered this explanation as the most likely mechanism to connect the CA paid FML program to nursing home usage, supported by previous research that shows enhanced family leave legislation leads to an increase in leave-taking among parents.

Finally, the principal limitation of this study, similar to all studies that use a DD approach, was that the implementation of CA paid FML policies is not randomly assigned. The authors noted that it is possible that states enact FML programs in response to nursing home and other care giving trends, and attempted to address this limitation by controlling for relevant time-varying characteristics in the model.

Hamad, Modrek & White. (2018). Paid family leave effects on breastfeeding: A quasi-experimental study of U.S. policies

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).¹²

The main limitations of the study were related to the data source. The NIS does not include employment information; therefore, the sample includes working and non-working mothers. Since paid FML policies are less likely to affect breastfeeding practices among non-working women, this study could underestimate the treatment effect among employed women. Additionally, the NIS asks about the child's current state of residence, but not their place of birth. Since exposure to paid FML is dependent on geographic location, this could distort results. Finally, the NIS does not include children's exact birthdates, instead reporting this as a categorical variable. The authors addressed this by calculating the earliest and latest possible birthdate for every child in each annual wave (e.g., January 2006 to February 2007 comprise the 2006 NIS wave).

Endnotes and citations

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2. Waldfogel, J. (1999). The impact of the Family and Medical Leave Act. *Journal of Policy Analysis and Management*, 18(2), 281-302. doi:10.1002/(SICI)1520-6688(199921)18:2<281::AID-PAM5>3.0.CO;2-J.
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4. Rossin, M. (2011). The effects of maternity leave on children's birth and infant health outcomes in the United States. *Journal of Health Economics*, 30(2), 221-239. doi:10.1016/j.jhealeco.2011.01.005.
5. The study examined first-time births to mothers compared to 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.
6. To measure birth outcomes, the study used birth records from 1989 to 1997 from the National Center for Health Statistics Vital Statistics natality data. To measure infant mortality rates, the study used 1989 to 1998 Vital Statistics mortality data for children under 1 year of age. These data were collapsed into groups by county, year and birth month and then merged together. An estimate of maternity leave eligibility was calculated using data from the County Business Patterns (CBP) for 1989-1997. The CBP provides the total employment and the number of firms in various size categories for each county and year, but has no information on workers' fertility or children. Data from the CBP were used to estimate the likelihood (conditional probability) that a person in a given county and year is employed in a firm with 50 or more employees. Given data constraints, the author's calculations were the closest available approximation of the probability that a woman would be eligible for FMLA maternity leave in a particular county and year. The data were grouped by county and year so that each group had its own conditional probability for FMLA eligibility. The author calculated the median conditional probability across all groups, and then designated groups with a probability above the median as "likely FMLA eligible," and groups with a probability below the median as "likely FMLA ineligible." The author then linked these groups to the birth outcomes and infant mortality data by county and year, and split the sample into likely eligible and likely ineligible mothers.
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