

Supporting Statement A for the *State-Level Paid Family Leave Project: Justification*

1. Circumstances Making the Collection of Information Necessary

The Department of Health and Human Services (DHHS) Office on Women’s Health (OWH) “provides national leadership and coordination to improve the health of women and girls through policy, education, and innovative programs.”¹ Through the *State-Level Paid Family Leave Policy Project*, OWH will explore the relationship between women’s health and state-level paid family leave (PFL) programs, which provide partial wage replacement to eligible employees to bond with a new child. The project aims to increase awareness of women’s health effects in relation to state-level PFL programs among key stakeholders, including advocates, state and federal policymakers, and state program administrators. This information will be used to inform the national conversation about these programs.

At the federal level, the Family Medical Leave Act (FMLA) of 1993 ensures up to 12 weeks of job-protected leave for eligible workers to bond with a new child, care for an ill family member, or take personal medical leave. FMLA does not offer any paid leave and may not benefit families who depend on parent earnings. It also covers only an estimated 59 percent of workers because of its eligibility requirements.²

State-level PFL programs help meet financial need through partial wage replacement. Four states have adopted state-level PFL programs: California (2004), New Jersey (2009), Rhode Island (2014), and New York (2018). The District of Columbia (2017), Washington (2017), and Massachusetts (2018) have also enacted state-level PFL laws but have not yet implemented them. Benefits will be available in 2020 in the District of Columbia and Washington, and 2021 in Massachusetts.

Barriers to broader state-level PFL legislation include concerns about the economic costs to employers, employees, and potentially taxpayers, as well as perceived workplace disruptions. However, multiple studies have documented the benefits of state-level PFL for mothers and children. State-level PFL can help mothers meet financial responsibilities while they are not working³ and stay engaged in the workforce.⁴ In addition, studies show that state-level PFL can

1 Office on Women’s Health mission statement, accessed here: <https://www.womenshealth.gov/about-us/who-we-are/vision-mission-goals-and-history>

2 Klerman, Jacob Alex, Kelly Daley, and Alyssa Pozniak. 2012. “Family and Medical Leave in 2012: Technical Report.” Cambridge, MA: Abt Associates Inc

3 Engeman, C. (2012). *Ten Years of the California Paid Family Leave Program: Strengthening Commitment to Work, Affirming Commitment to Family* (Policy brief). Retrieved from <http://www.femst.ucsb.edu/projects/crwsj/engagements/pdf/Engeman-PFL-Policy-Brief.pdf>

4 Baum, C., & Ruhm, C. (2016). The Effects of Paid Family Leave in California on Labor Market Outcomes. *Journal of Policy Analysis and Management*, 35(2), 333-356. doi:10.3386/w19741

improve health outcomes for babies by facilitating breastfeeding^{5,6,7,8} and adherence to well-baby appointments.⁹

Less is known, however, about the relationship between state-level PFL and mothers' physical and mental health. As part of a literature review conducted under this project, the project team reviewed 58 articles, including literature reviews and policy statements, that addressed maternity leave and women's postpartum health or health behaviors, including exercise, sleep, and breastfeeding.

The body of literature on the relationship between maternity leave and mental health was the most robust in our review. Studies generally showed that maternity leave had a positive relationship with women's mental health and explored factors that affected mental health, such as financial insecurity and work-family conflicts. There was less exploration on the relationship between leave and maternal physical health. However, studies generally concluded that paid leave taken after the birth of a child or in the ninth month of pregnancy may help women recover from the physical effects of birth and labor or prevent the most serious pregnancy-related outcomes.

Despite the availability of articles related to maternity leave and maternal health outcomes, very few of these articles focused on state-level PFL (versus general paid or unpaid leave) in the United States, and no articles compared the experience of mothers who used and did not use state-level PFL as informed by qualitative data. Only 11 articles assessed the impact of paid leave, 5 of those addressed specific state-level PFL programs, and 2 of those evaluated programs in the United States. Bullinger (2018) found that new mothers in California had better self-reported mental health after the adoption of state-level PFL.¹⁰ Pal (2016) found that in New Jersey, women reported better physical health after that state's PFL program was implemented.¹¹

OWH contracted with Mission Analytics Group, Inc. (Mission) for the *State-Level Paid Family*

5 Kottwitz, Anita, Anja Oppermann, C. Katharina Spiess. 2015. "Parental Leave benefits and Breastfeeding in Germany Effects of the 2007 Reform." *Review of Economics of the Household* 14:859-890.

6 Huang, Rui, Muzhe Yang. 2015. "Paid Maternity Leave and Breastfeeding Practice Before and After California's Implementation of the Nation's First Paid Family Leave Program." *Economics and Human Biology* 16: 45-59.

7 Andres, Ellie, Sarah Baird, Jeffrey Bart Bingenheimer, Anne Rossier Markus. 2015. "Maternity Leave Access and Health: A Systematic Narrative Review and Conceptual Framework." *Maternal and Child Health Journal* 20 (6): 1178-1192.

8 Mirkovic, Kelsey R., Cria G. Perrine, Kelley S. Scanlon. 2016. "Paid Maternity Leave and Breastfeeding Outcomes." *Birth: Issues in Perinatal Care* 43(3): 233-239.

9 Berger, Lawrence M., Jennifer Hill, Jane Waldfogel. 2005. "Maternity Leave, Early Maternal Employment, and Child Health and Development in the US." *The Economic Journal* (115): 29-27.

10 Bullinger Lindsey Rose. 2018. "The Impact of Social Policy on Child and Family Health and Well-Being in the United States." PhD diss. Indiana University.

11 Pal, Iphista. 2016. "Effect of New Jersey's Paid Family Leave Policy of 2009 on Maternal Health and Well-Being" PhD diss. Columbia University.

Leave Policy Project to conduct exploratory research about this potential relationship through the analysis of national survey and focus group data. This Information Collection Request is for qualitative research to generate hypotheses. Focus groups will be conducted with convenience samples of mothers who did and did not participate in state-level PFL programs in four states.

This qualitative research will complement quantitative analysis of existing survey datasets, described in the next section. To the extent consistent with the design of each survey, we will generate analyses to inform our underlying questions the potential implications of PFL for women's health and health behaviors. Findings from the focus groups and the secondary data analysis (i.e., analysis of national survey data) will be combined to present evidence of the relationship between state-level PFL and women's health while richly capturing the complexity of women's experiences.

Analysis questions include:

- What are the utilization patterns of the women in the focus groups for state-level PFL?
- What are the characteristics of women in the focus groups who are taking state-level PFL?
- Do we have sufficient data to characterize the postpartum health conditions of new mothers who take state-level PFL?
- Do the secondary analyses suggest that state-level PFL contributes to improved health outcomes? Do the focus group discussions provide any insight as to whether the relationships observed might be attributed to reverse causation?
- Does analysis of the datasets or focus groups suggest specific hypotheses about the relationship between women's health, the role of state-level PFL, and women's ability to fulfill their roles in the workplace, family, and community?

2. Purpose and Use of Information Collection

The *State-Level Paid Family Leave Policy Project* involves the collection of information on new mothers' health, health behaviors, and ability to fulfill their roles in the workplace, family and community. Data will be collected through 16 focus groups in the four states with fully functioning programs (California, New Jersey, Rhode Island, and New York). During focus groups, participants will discuss physical and mental health related to pregnancy and birth. They will also share information on factors that may influence their physical and mental health, including stress inducers and coping mechanisms, and health behaviors, such as sleep, nutrition and exercise. Half of focus group participants will have used state-level PFL to explore the effects of the program on health and health behaviors. The other half will have not used state-level PFL to serve as a comparison.

The project team will conduct a phone screen with interested individuals to assess eligibility for focus group participation (i.e., eligibility for state-level PFL and baby within a certain age range). A questionnaire will be administered prior to the focus groups to collect information on participants' demographic characteristics and other external factors that may affect health, such

as their health prior to birth and insurance coverage. Demographic questionnaires will be linked to focus group transcripts through participant pseudonyms, as described below.

The secondary data analysis involves three datasets:

Pregnancy Risk Assessment Monitoring System (PRAMS). The Centers for Disease Control and Prevention (CDC) works with nearly all states to collect and maintain data on attitudes, behavior, and physical and mental health conditions of women prior, during, and after pregnancy. PRAMS data spans from 1987 through 2016, although data is not available for all years for all states. While PRAMS captures use of maternity leave, respondents do not indicate whether their maternity leave was state-sponsored, employer-sponsored, or unpaid. The project team will analyze rates of postpartum depression and healthcare utilization for women who did and did not take leave by state. The overall rates of women who took leave, who experienced postpartum depression, and of healthcare utilization for states with and without PFL programs will also be compared. California does not participate in PRAMS, so this source will examine physical and mental health outcomes for women taking leave in Rhode Island and New Jersey. New York participates in PRAMS, but since PRAMS data is not available after 2016, PRAMS cannot be used to assess the potential effects of New York's state-level PFL program, which commenced in 2018.

Listening to Mothers (LtM) and Listening to California Mothers (LtCM). The LtM survey, conducted in 2002, 2005, and 2011/2012, collects information from women on their experiences before pregnancy and through the postpartum period. A LtCM survey was conducted of women who gave birth in California in 2016, and de-identified data from this survey will be available in late 2019. The LtM surveys collect information on state-level PFL, which could be used to assess the relationship between this program and health outcomes. However, its small sample sizes in some states (particularly in California) may limit its usage in our analysis. This challenge may be partly mitigated by the release of LtCM. The project team will compare women's experiences related to postpartum morbidity, healthcare utilization, and mental health outcomes for state-level PFL users to non-users. The study team will also analyze demographic data of state-level PFL users compared to non state-level PFL users such as age, race, income and profession.

Healthcare Cost and Utilization Project (HCUP). HCUP is the largest collection of longitudinal hospital care data in the United States. Data is presented at a state and national level and does not include individual level data. Years span from 1997 to 2014 and include information related to the count and rate of ICD-9 and ICD-10 diagnoses of inpatient hospital stays by selected geographic region. The outcome measure for HCUP data is the rate of maternal morbidities in states with PFL programs compared to rates in demographically similar states without PFL programs.

To ensure that these findings help inform the conversation regarding state-level PFL programs, they will be disseminated through multiple deliverables, described in greater detail in Section 16: *Plans for Tabulation and Publication and Project Time Schedule.*

3. Use of Improved Information Technology and Burden Reduction

The project team will collect qualitative data through focus groups with new mothers that qualify for state-level PFL, whether they used the program or not. Conducting in-person focus groups allows the project team's researchers to connect with participants, address individual responses in real time, and ask relevant follow up questions. Importantly, focus groups allow participants to hear, address, and respond to the stories and responses of other participants. This leads to a richer, more meaningful discussion that follows the flow and direction set by participants.

Given the qualitative nature of this project component, data collection will not rely heavily on information technology. Focus groups will be audio-recorded, allowing respondents to speak at their own pace without jeopardizing comprehensive data collection.

4. Efforts to Identify Duplication and Use of Similar Information

This effort is not duplicative with any other information collection. The project team conducted a thorough literature review, reviewing 58 articles that studied the relationship between maternity leave and women's health. Available research primarily focused on maternity leave in general, as opposed to state-sponsored PFL programs. Studies that tested the relationship between state-level PFL and women's health tended to take place outside of the United States. Finally, virtually no articles incorporated qualitative research into their findings; they primarily relied on the analysis of survey data. These gaps in the literature point to the need for qualitative research on state-level PFL and women's health within the United States context.

DHHS' Office of the Assistant Secretary for Planning and Evaluation (ASPE) utilized a similar methodology to explore the benefits of California's PFL program for low-income families and the relationship between state-level PFL and work engagement (OMB Number: 0990-0421). These studies were led by Dr. Pamela Winston, who is serving as an advisor on the *State-Level Paid Family Leave Policy Project*, to ensure the current project enhances, not duplicates, the data already collected on these topics.

5. Impact on Small Businesses or Other Small Entities

No small businesses will be involved in this study.

6. Consequences of Collecting the Information Less Frequent Collection

Focus group participants will participate in data collection one time only.

7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

The request fully complies with 5CFR 1320.5.

8. Comments in Response to the Federal Register Notice/Outside Consultation

A 60-day Federal Register Notice was published in the *Federal Register* on April 3, 2019, Vol. 84, No. 64; pp. 13,047-13,048. There were no public comments.

To develop the research design and focus group protocol, the project team consulted with:

Pamela Winston, PhD within the U.S. Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation, (202) 969-3827, Pamela.Winston@hhs.gov.

9. Explanation of any Payment/Gift to Respondents

The project team will provide a \$50 gift card to focus group participants to encourage participation and thank them for taking part. Participants will also be reimbursed for childcare and/or transportation costs. It is important to offer a reasonable incentive to these subjects to ensure timely recruitment and completion of the focus groups within the desired timeframe. The maximum amount provided to any participant, including reimburses costs, will be \$75, which is commensurate with the Federal agency standard for 1.5 hours focus group.

10. Assurance of Confidentiality Provided to Respondents

Focus group participant contact information (i.e., first names, e-mail addresses, and/or telephone numbers) will be collected for recruitment purposes only. This information will be destroyed upon completion of the focus groups. Participants will use pseudonyms during the focus groups and to label the demographic questionnaires. The focus group protocol does not contain questions that could identify individuals. Information gathered through the focus groups and demographic questionnaires will only be linked back to participants' pseudonyms. Focus group participants must sign a consent form prior to their participation informing them that the focus group is audio-recorded, only pseudonyms will be used in the analysis, and participation is voluntary.

Recordings of focus groups will only be heard by members of the project team, including OWH, ASPE, Mission, and a contracted transcription company. Once the reports are written, the recordings will be destroyed.

Western Institutional Review Board (WIRB) determined that the study is exempt from needing Institutional Review Board (IRB) approval.

11. Justification for Sensitive Questions

The focus group protocol and demographic questionnaire contain sensitive questions on race/ethnicity, healthcare utilization, health behaviors, finances, and relationships with family, including a participant's partner and/or the father of her baby, and finally, physical and mental health status.

The demographic questionnaire includes questions on race/ethnicity because research demonstrates certain racial/ethnic groups have poorer healthcare outcomes and are at higher risk for complications related to pregnancy and birth. Therefore, race/ethnicity must be taken into consideration when analyzing focus group data on differences in health outcomes across state-level PFL users and non-users.

The project team will collect information on healthcare utilization for two reasons. First, because access to healthcare and insurance coverage may contribute to health outcomes, they also must be considered as part of the analysis. In addition, participation in state-level PFL may influence healthcare utilization. For example, women who use state-level PFL may have more time to seek

preventative healthcare after the birth of their babies, thus avoiding longer-term health consequences.

Similarly, positive health behaviors (e.g., sleep and exercise) and coping mechanisms (e.g., smoking and drinking alcohol) may be related to state-level PFL. For example, women who participate in state-level PFL may have more time after the birth of their babies to engage in positive health behaviors. In addition, the wage replacement and bonding time provided through state-level PFL may reduce anxiety and thus, decrease reliance on coping mechanisms that could negatively affect health. Given the impact of these factors on health and their potential relationship with state-level PFL, they are part of both the demographic questionnaire and the focus group protocol.

Physical and mental health will be a focus group core discussion topic given our main research question: *What are the postpartum health conditions of new mothers who take state-level PFL?* Women will share information on physical and emotional recovery from birth, so we can compare experiences of state-level PFL users and non-users.

12. Estimates of Annualized Hour and Cost Burden

The project team estimates a total of 240 burden hours. We will conduct 16 focus groups with state-level PFL users and non-users. Each focus group will have approximately six participants for a total of 96 participants. The project team will conduct a phone screen with interested individuals to assess eligibility for focus group participation (i.e., eligibility for state-level PFL and a baby within a certain age range). We assume we will screen four times as many people as focus group participants to account for individuals who are ineligible or unable to attend (384 interested individuals). The phone screen takes approximately 15 minutes for a total of 96 burden hours. In addition, all participants will complete the same demographic questionnaire immediately prior to the focus group, which also takes 15 minutes, for a total of 24 hours. Focus groups will last one hour and 15 minutes for a total of 120 hours. Participants will not need to prepare for the screener, questionnaire or focus group.

12A. Estimated Annualized Burden Hours

Type of Respondent	Form Name	No. of Respondents	No. Responses per Respondent	Average Burden per Response (in hours)	Total Burden Hours
Interested Individuals	Focus group screener	384	1	15/60	96
Focus group participants	Demographic questionnaire	96	1	15/60	24
Focus group participants	Focus group protocol	96	1	1.25	120
Total					240

Type of Respondent	Form Name	No. of Respondents	No. Responses per Respondent	Average Burden per Response (in hours)	Total Burden Hours

12B. Estimated Annualized Burden Costs

The project team aims to conduct focus groups with participants that represent the economic diversity of the participating states. Given focus group participants will vary in income, we assume, on average, participants will make the median wage in each state. In addition, considering the size of each state and the length of time the program has been operating, we assume six focus groups will take place in California, four in New Jersey, two in Rhode Island, and four in New York. Based on the state median wage and the number of participants in each state, we calculate a weighted average hourly wage of \$19.95.¹² Given 240 burden hours, the total respondent costs are \$4,788.00.

Type of Respondent	Form Name	Total Burden Hours	Hourly Wage Rate	Total Respondent Costs
Interested Individuals	Focus group screener	96	\$19.95	\$1,915.20
Focus group participants	Demographic questionnaire	24	\$19.95	\$478.80
Focus group participants	Focus group protocol	120	\$19.95	\$2,394.00
Total		240		\$4,788.00

13. Estimates of other Total Annual Cost Burden to Respondents or Recordkeepers/Capital Costs

There will be no expected capital costs to respondents.

14. Annualized Cost to Federal Government

The total cost of the *State-Level Paid Family Leave Policy Project* 3.5-year contract (for Contract HHSP233201500060I Task Order HHSP23337005T) to the government is \$475,658. These costs include study design, development and testing of the data collection instruments,

¹² Median Wages by State: Governing the States and Localities.

<http://www.governing.com/gov-data/wage-average-median-pay-data-for-states.html>,

Governing calculations of BLS Occupational Employment Statistics data. California: 36 participants, \$19.67; New Jersey: 24 participants, \$20.17; New York: 24 participants, \$20.56; Rhode Island: 12 participants, \$19.10.

preparation of the Paperwork Reduction Act (PRA) package, participant recruitment, primary data collection through focus groups and the demographic questionnaire, primary data analysis, secondary data analysis, and the development of reports. We assume 75% of the project costs are dedicated to primary data collection and analysis – the focus of this PRA package – for a total of \$356,743.50.

In addition, the project team estimates about 1,000 hours of federal staff involved in project oversight. The cost is broken out into 750 hours of federal staff time at an average hourly wage of \$32.19 (GS-11 equivalent, step 2) and 250 hours of federal staff time at an average hourly wage of \$68.21 (GS-14 equivalent, step 10), for a total of \$41,195.00.

The total cost of the project is \$397,938.50. The annualized cost to the government, this amount divided by 3.5, is estimated at \$113,696.71.

15. Explanation for Program Changes or Adjustments

This the first time the *State-Level Paid Family Leave Policy Project* is seeking OMB approval.

16. Plans for Tabulation and Publication and Project Time Schedule

The project team will conduct the focus groups immediately following OMB approval. Data collection will take approximately six months. During the first two months, the project team will recruit and screen participants and finalize scheduling logistics. Focus groups will occur over the subsequent four-month period.

The project team will record focus groups for transcription and coding. Codes will mirror key research and protocol questions. First, codes will categorize women's use of state-level PFL and other leave benefits. Second, codes will relate to women's mental and physical health status and ability to fulfill their roles in the family, workplace, and community postpartum. Third, codes will address the potential short-term outcomes of state-level PFL that may influence women's health, such as sleep and breastfeeding. Finally, codes will capture external factors also related to health, including pre-existing medical conditions, work rigor, and socioeconomic status.

The project team will code transcripts with NVivo software. Coded data will be linked to participants' pseudonyms to merge with the demographic questionnaires. We will then analyze data by use and non-use of state-level PFL and identify trends among women in each category. Analyses will take into consideration the nuance of leave benefits and external factors to isolate the relationship between women's health and state-level PFL. Coding and analysis will be conducted in the month following the completion of the focus groups.

The project team will summarize findings in four major deliverables. First, we will develop a memo presenting results from the mixed-methods analysis (primary and secondary data). For each major research question, we will first present the quantitative data findings and then use the qualitative data to explain potential factors that may drive data trends. Second, we will develop a Final Report, a more detailed document comprehensively describing methods and findings. Third, in collaboration with OWH, we will select an aspect of the analysis and findings appropriate for publishing in a relevant journal, such as *Women's Health Issues*; the *Journal of*

Mental Health Policy and Economics; the Journal of Family Issues; and Maternal and Child Health Journal. Finally, at the request of OWH, we will present findings to OWH and other stakeholders. Other outlets for dissemination include the National Partnership for Women and Families, the Institute for Women's Policy Research, and the Work and Family Researchers Network, which are the leading non-profits at the intersection of women's health and PFL policy. Deliverables will be completed within the ten months following coding.

17. Reason(s) Display of OMB Expiration Date is Inappropriate

The OMB number and expiration date will be displayed on every page of every form/instrument.

18. Exceptions to Certification for Paperwork Reduction Act Submissions

There are no exceptions to the certification.

Appendix A: Literature Review Summary Table

Author/Title	Location	Program/Policy	Data Source	Study Population	Findings	Limitations
1. Beuchert (2015), The Length of Maternity Leave and Family Health	Denmark	2001 expansion of Denmark’s national PFL benefit by 32 days	Hospital admissions and medication prescriptions (distinguishing between physical and mental health issues)	Over 15,000 employed mothers who gave birth between November 2001 and March 2002	New mothers under the expanded national PFL program experienced fewer hospital admissions and outpatient visits than those before the expansion. There was no difference in mental health indicators.	None cited
2. Bullinger (2018), The Impact of Social Policy on Child and Family Health and Well-Being in The United States	California	2004 adoption of six weeks of state-level PFL	National Survey of Children’s Health (NSCH)	Mothers with infants aged 0-1	New mothers had better self-reported mental health after the adoption of state-level PFL.	NSCH does not contain employment history or use of state-level PFL.
3. Chatterji (2012), Family Leave After Childbirth and the Mental Health of New Mothers	U.S.	Short leave: less than 12 weeks of total leave and less than 8 weeks of paid leave ¹	Early Childhood Longitudinal Study – Birth Cohort (ECLS-B)	3,350 mothers who worked during their pregnancies and had returned to work within nine months of childbirth	Short leaves were associated with increases in depressive symptoms; less than 8 weeks of paid leave was associated with a reduction in health status.	Characteristics that could influence maternal health could vary across states with different state-level PFL policies.
4. Hewitt (2017),	Australia	2011 adoption	A national	2,347 mothers	Mothers post-national PFL	None cited

Author/Title	Location	Program/Policy	Data Source	Study Population	Findings	Limitations
The Benefits of Paid Maternity Leave for Mothers' Post-Partum Health and Wellbeing: Evidence from an Australian Evaluation		of 18 weeks of national PFL	survey implemented before and after the introduction of national PFL. Surveys were conducted when babies were approximately 12 months old	with babies born Oct. or Nov. 2009 (pre-national PFL) and 3,268 mothers with babies born Oct. or Nov. 2011 (post-national PFL)	had slightly (but statistically significant) higher average mental health and physical health scores than mothers pre-national PFL. Analyses by job type showed mixed results. ²	
5. Jou (2017), Paid Maternity Leave in the United States: Associations with Maternal and Infant Health	U.S.	Paid versus unpaid leave ³	Listening to Mothers III	A national survey of 2,400 women ages 18–45 who gave birth to singleton infants from July 2011–June 2012	Women who took paid leave experienced a 51% decrease in the odds of being re-hospitalized and had 1.8 times the odds of doing well with exercise and stress management compared to women taking only unpaid leave.	Study focuses on employer-sponsored leave. It is unclear how the study treated government-sponsored state-level PFL programs.
6. Kornfeind (2018), Exploring the Link between Maternity Leave and Postpartum Depression	U.S.	Length of leave; paid versus unpaid leave	Listening to Mothers III	177 mothers who returned to work full-time	Among mothers with less than 12 weeks of leave, each additional week of leave was associated with 42% lower odds of depressive symptoms. There was no difference between paid versus unpaid	Small sample

Author/Title	Location	Program/ Policy	Data Source	Study Population	Findings	Limitations
					leave.	
7. Mandal (2018), The Effect of Paid Leave on Maternal Mental Health	U.S.	Paid versus unpaid leave	Early Childhood Longitudinal Study - Birth Cohort (ECLS-B)	3,000 women who worked full-time before childbirth and returned to work within 12 weeks	Women who received paid leave as opposed to unpaid leave experienced better mental health outcomes.	None cited
8. Pal (2016), Effect of New Jersey's Paid Family Leave Policy of 2009 on Maternal Health and Well-Being	New Jersey	2009 adoption of six weeks of state-level PFL	Behavioral Risk Factor Surveillance System annual surveys and random child selection modules from 2005 to 2012	Working women ages 25-44 with infants in New Jersey and control states	There was no change in women's self-reported wellbeing, but there was strong evidence of improvements in self-reported women's physical health.	Survey does not contain use of state-level PFL
9. Sharma (2016), The Impact of Maternal Leave on a Mother's Overall Level of Depression and Wellbeing	U.S. and Canada	Paid versus unpaid leave	Primary data collection	141 mothers with babies aged 2 to 12 months	There were no differences between paid and unpaid leave for wellbeing and depression among survey respondents.	Women were recruited through online media.
10. Skira (2017), The Impact of Paid Maternity Leave on Maternal	Norway	1977 expansion of leave policy from 12 weeks of unpaid leave	Norwegian administrative birth registry data and Cohort	Working women who had a baby immediately	Women after the reform saw improvements in "bio-markers" – body mass index (BMI), obesity, and blood	Employment history prior to birth was not available, so

Author/Title	Location	Program/ Policy	Data Source	Study Population	Findings	Limitations
Health		to four months of national PFL	of Norway (CONOR) survey data	before and after the 1977 reform	pressure – and self-reported pain, mental health, and health behaviors (smoking and exercise).	researchers used income data to identify national PFL eligibility.
11. Whitehouse (2012), Leave Duration After Childbirth: Impacts on Maternal Mental Health, Parenting, and Couple Relationships in Australian Two-Parent Families	Australia	Length of paid and unpaid leave (note this study was conducted using data collected prior to the 2011 national PFL policy)	Longitudinal Study of Australian Children (LSAC)	1,393 mothers with babies ages 3-19 months who worked 12 months prior to giving birth	Mothers who took more than 13 weeks of paid leave or 26 to 52 weeks of total leave had lower odds of being distressed as compared to those with unpaid leave or no leave.	None cited