WORK SUPPORTS FOR CHILD HEALTH:  
THE ROLE OF PAID FAMILY & MEDICAL LEAVE  
APRIL 26, 2019
DATA ON INFANT MORTALITY

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Infant Mortality Rates by Race and Ethnicity, 2016

- Non-Hispanic Black: 11.4
- American Indian/Alaska Native: 9.4
- Native Hawaiian or other Pacific Islander: 7.4
- Hispanic: 5.0
- Non-Hispanic White: 4.9
- Asian: 3.6

Rate per 1,000 Live Births
INFANT MORTALITY BY RACE IN THE UNITED STATES, 2004-2016
Percentage of Infants Born at a Low Birthweight, by Race and Hispanic Origin: 2016

- Low birthweight (less than 2,500 grams)
- Very low birthweight (less than 1,500 grams)

The Effect of Paid Maternity Leave on Breastfeeding Rates: An Analysis of New Jersey’s Paid Leave Law*

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*Co-Authored with Erin George, Ph.D. at Hood College
Why Paid Leave and Breastfeeding?

**Paid Leave**
- Increases likelihood of staying home
- Delays return to work

**Breastfeeding**
- Initiation and duration may increase when moms stay home longer

**Infant Health**
- Breastfeeding is linked with numerous infant health outcomes
Mothers’ Return to Work and Breastfeeding

- The decision to breastfeed is multifaceted, but is at least in part determined by a mother’s return to work after giving birth.

- Mixed findings on impact of returning to work on initiation:
  - Returning to work has no impact on initiation (Kimbro 2006) and having a longer leave does not change this (Ogbanu et al. 2011).
  - Other work does find a negative association between the return to work and the intensity of the return to work and breastfeeding initiation (Chuang et al. 2010, Chatterji and Frick 2005; Guendelman et al. 2009; Berger, Hill, and Waldfogel 2005; Lindberg 1996).
Evidence is more clear on the impact of returning to work on the duration of breastfeeding

- Shorter leaves are associated with early breastfeeding cessation (Lindberg 1996; Kimbro 2006; Guendelman et al. 2009; Chuange et al. 2010)
- Odds of cessation are strongest when a woman first returns (Kimbro 2006)
Health Benefits of Breastfeeding for Infants:

- Reduced rates of sudden infant death syndrome (SIDS), necrotizing enterocolitis, asthma, diabetes, certain types of cancers, coeliac disease (Ip. Et al 2007; Berner et al. 2008; Owen et al. 2006; Akobeng et al. 2006; Barclay et al. 2009)

- Healthier weight status (Moss and Yeaton 2013)

- Some studies find effects are more pronounced among infants who are exclusively breastfed and/or who are breastfed for longer (see Hauck et al. 2011, for example)
Breastfeeding in the United States

<table>
<thead>
<tr>
<th>Income to Poverty Ratio</th>
<th>Ever Breastfed</th>
<th>Breastfed at 6 Months</th>
<th>Breastfed at 1 Year</th>
<th>Exclusively Breastfed Through 3 Months</th>
<th>Exclusively Breastfed Through 6 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 100</td>
<td>73.2%</td>
<td>42.1%</td>
<td>25.6%</td>
<td>34.2%</td>
<td>16.9%</td>
</tr>
<tr>
<td>100 to 199</td>
<td>81.9%</td>
<td>51.8%</td>
<td>29.7%</td>
<td>47.5%</td>
<td>25.7%</td>
</tr>
<tr>
<td>200 to 399</td>
<td>85.2%</td>
<td>59.9%</td>
<td>37.5%</td>
<td>51.7%</td>
<td>28.7%</td>
</tr>
<tr>
<td>400 to 599</td>
<td>92.6%</td>
<td>70.7%</td>
<td>42.2%</td>
<td>58.0%</td>
<td>30.2%</td>
</tr>
<tr>
<td>≥ 600</td>
<td>92.4%</td>
<td>71.3%</td>
<td>45.4%</td>
<td>56.7%</td>
<td>32.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>82.5%</strong></td>
<td><strong>55.3%</strong></td>
<td><strong>33.7%</strong></td>
<td><strong>46.6%</strong></td>
<td><strong>24.9%</strong></td>
</tr>
<tr>
<td><strong>Goal</strong></td>
<td><strong>81.9%</strong></td>
<td><strong>60.6%</strong></td>
<td><strong>34.1%</strong></td>
<td><strong>46.2%</strong></td>
<td><strong>25.5%</strong></td>
</tr>
</tbody>
</table>
The U.S. is the only developed nation in the world that does not guarantee some paid leave for parents around the birth of a child.

Current National Policy: 1993 Family Medical Leave Act (FMLA)
- Can take up to 12 weeks unpaid, job protected, leave over a 12 month period
- Must work for an employer with at least 50 employees in a 75 mile radius of worksite
- Must work at least 1250 hours in the previous year

Only 59 percent of workers qualify for FMLA; usage is low, particularly among low-income mothers (Klerman et. al 2014)
State-level policies help fill this gap, though they are still quite rare.

Temporary Disability Insurance (TDI): California, Hawaii, New York, Rhode Island, and New Jersey

- Typically provides 6 weeks of paid leave for new mothers for uncomplicated pregnancies.
- States vary in their wage replacement rates and maximum benefit amounts as well as eligibility criteria.
Policy Landscape

- State Paid Family Leave (PFL):
  - California (2004)
  - New Jersey (2009)
  - Rhode Island (2014)
  - New York (2018)
  - Washington State (2020)
  - Washington, DC (2020)
  - Massachusetts (2021)
Recent state paid leave laws provide a quasi-experimental research environment to evaluate the impact of paid leave on breastfeeding.

Data on California:

- Applebaum and Milkman (2011) find that use of paid leave increases initiation and median weeks of breastfeeding.
- Huang and Yang (2015) find an increase in duration and exclusivity.
Due to data limitations, most research on paid leave to date has focused on California.

Our research asks:

- How did New Jersey’s paid leave law effect breastfeeding initiation, duration, and exclusivity?
- How does the effect of paid leave differ between low- and high-income mothers?
More on New Jersey’s Paid Family Leave Laws

- Temporary Disability Insurance (full sample period)
- Paid Family Leave (effective 2009)
  - 6 weeks
  - 66% wage replacement up to $650 per week
  - Represents additional paid leave mothers can take
Data

- We use data from the 2006 to 2017 National Immunization Survey
  - Children aged 19-35 months at time of interview
  - Covers births between 2003 and 2016
Characteristics of the NJ Sample

Mother Demographics
- Most mothers are 30+ (68.3%)
- The majority have at least some college education (62.2%)
- 69.7% are married
- 22.8% have family incomes < $20k, 55.9% have incomes > $50k

Child Demographics
- 45.7% are firstborn children
- 48.4% are female
- 16.9% are Black, 29.2% are Hispanic
- 39.9% received WIC benefits

Breastfeeding Outcomes (pre-PFL)
- 76% of Infants were Breastfed
- Average Duration = 234 days
- Average Exclusive Duration = 145 days
Methodology

- We utilize a standard difference-in-difference model where our coefficient of interest is on New Jersey post-treatment (2009)

- Control groups:
  - All other states (excluding CA)
  - All other TDI states (HI, NY, and RI)
  - The three largest states in the sample (FL, NY, and TX)

- Outcomes of Interest:
  - Breastfeeding initiation
  - Duration of breastfeeding (in days)
  - Duration of exclusive breastfeeding (in days)

- Explanatory variables:
  - Mother and Child Demographics
  - State and Year Fixed Effects
  - State-level controls (i.e. median household income, unemployment rate, etc.)
Results: Full Sample

**Ever Breastfed**
- Vs. All Other States: 0.005
- Vs. TDI States: 0.049
- Vs. 3 Largest States: 0.063*

**Breastfeeding Duration**
- Vs. All Other States: -8.581
- Vs. TDI States: 2.432
- Vs. 3 Largest States: -4.697

**Exclusive Duration**
- Vs. All Other States: 4.218
- Vs. TDI States: -5.200
- Vs. 3 Largest States: 2.967

Regression coefficients reported. * p < .1, ** p < .05, *** p < .01
Subsample Analysis: Below Poverty Line

- Why examine the differential impact by poverty status?
  - Breastfeeding rates are lowest among mothers in poverty
  - Mothers in poverty are less likely to have access to paid leave generally
  - Paid leave is more likely to influence the decision of whether and how long to stay home after giving birth for low-income mothers
Results: Below Poverty Sample

**Ever Breastfed**
- Vs. All Other States: 0.017
- Vs. TDI States: 0.164**
- Vs. 3 Largest States: 0.150

**Breastfeeding Duration**
- Vs. All Other States: -58.03**
- Vs. TDI States: -86.00**
- Vs. 3 Largest States: -47.85**

**Exclusive Duration**
- Vs. All Other States: 13.02
- Vs. TDI States: -11.07
- Vs. 3 Largest States: 5.961

Regression coefficients reported. ∗ p < .1, ∗∗ p < .05, ∗∗∗ p < .01
We have reason to think that New Jersey’s PFL law had a positive impact on infant health outcomes, particularly for infants in low-income households.

- More infants were breastfed after the law was enacted.
- Breastfeeding of any duration has been linked to improved infant health outcomes.

Policy design is going to be very important in determining the extent of the impact for future states passing laws, particularly with regard to wage replacement rates.

- Future work should build in additional treatment states as data become available, in particular Washington State, Washington, DC, and Massachusetts (not TDI states).
- Future work should also exploit state variation in PFL generosity to examine impact of wage replacement, weeks covered, etc.
Thank You!
Paid Leave and Infant Health Outcomes

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• Parents’ access to paid leave is associated with many infant health benefits
• There is a bi-directional relationship between economic security and health, as facilitated by paid leave
• Many indirect effects are likely through improved parental health and mental health
• There are many opportunities for further research
Reduced hospitalizations

- In CA, infant hospitalizations decreased 3-6% after implementation of PFL benefit statewide\(^1\)
- Largest reduction was in hospitalizations for gastrointestinal and respiratory infections
  - Nonsignificant effect for hospitalizations from cancer
  - Likely mechanisms are a) decreased use of group-based care in first weeks of life and b) increased ability to access preventive care
- Economic effect is substantial: reduction in about $218 million in hospital charges each year
Duration of Leave Matters

• In a study of 700 mothers in US,\(^2\) length of paid leave was associated with reduced infant hospitalizations
  – Mothers who had 12+ weeks of leave were less likely to have experienced re-hospitalization of their infant
  – Only 3% of mothers had 12+ weeks; 50% had zero weeks of paid leave, while 25% had 1-6 weeks
• Similarly, Nandi et al.\(^3\) found that every month of paid maternity leave resulted in a 13% reduction in infant deaths globally
  – 9% reduction in neonatal deaths
  – 18% reduction in postnatal deaths
Robust evidence that use of paid leave is associated with higher rates of breastfeeding

- Breastfeeding reduces infant mortality and morbidity
- Again, duration of paid leave matters: those with 12+ weeks were more likely to breastfeed their infants than those with less
Paid Leave and Preterm Infants

• Access to paid leave may be especially important for parents of preterm infants
  – Parents with limited paid leave often delay leave until baby comes home from the NICU
  – This prevents important engagement associated with improved infant health and development

• Examples of benefits of parental engagement in the NICU:5
  – Shorter NICU stays
  – Reduced paid response among infants
  – Decreased cortisol levels
Paid Leave May Reduce Preterm Birth

• 1 in 10 births in US are preterm
  – Rates nearly double among Black mothers and unmarried mothers

• In a study of births among mothers in states with Temporary Disability Insurance:\(^6\)
  – Low birthweight (LBW) births reduced by 3%
  – Preterm births reduced by nearly 7%
  – Effect was stronger among Black mothers and unmarried mothers
Parents who accessed paid leave were less likely to experience economic insecurity after the leave:
- Working mothers who took leave were 20% more likely to be employed one year after birth\(^7\)
- They also had 24% higher income than those who did not take leave\(^8\)
- Parents who take leave are 50% less likely to use public benefits like TANF and SNAP the year after birth of the child\(^9, 10\)
- They were also less likely to have incomes below poverty threshold\(^11, 12\)

Economic security is associated with many child health & developmental outcomes
• My team is currently conducting a study of facilitators and barriers to maternal engagement with preterm infants in Colorado NICUs

• Forthcoming qualitative paper describes multiple barriers to moms’ engagement
  – Juggling work and infant care is common
  – Median length of leave is 0 days
  – Those with leave save it for discharge

• Upcoming quantitative work will test whether access to leave is associated with better infant health

• See also recent report on projected effects of paid leave in CO: https://socialwork.du.edu/sites/g/files/Imucqz281/files/2019-02/Paid%20Family%20Leave%20Report.pdf
Key Takeaways

• Parents’ access to paid leave matters for infant health
• Length of leave is especially important; added weeks or months of leave increase the health benefits
• Further directions for research:
  – Are there long-term benefits for children beyond first year?
  – How does access to caregiving leave (beyond pregnancy & birth period) affect child health?
  – Need to quantify economic impact of these health benefits
References


The Child Development Case for Paid Family and Medical Leave

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At ZERO TO THREE, we envision a society that has the knowledge and will to support all infants and toddlers in reaching their full potential.
Why the Early Years Matter

FIRST TWO YEARS

Sensory Pathways (Vision, Hearing)

Language

Higher Cognitive Functions

Self-Regulation

Birth (Months) (Years)
Babies Gain Knowledge at a Staggering Rate

1 million new connections every second

Newborn  1 month  3 months  6 months
A young child’s early relationships, especially with parents, shape the architecture of the developing brain.

These relationships require care, consistency, and, above all, time.
Relationships with parents and other caregivers are critical to a baby’s early development.

• For babies, **every minute and every interaction** is a lesson in how the world works, how individuals relate to one another, and how they are valued.

• Caring, consistent relationships experienced by young children can **mitigate the impact of stress** and help **develop the foundations** of a child’s ability to learn, to form positive relationships, and to exercise self-control.

• It takes **several months of focused attention** to become a responsive caregiver to a young child, establishing a pattern that will influence the child’s long-term cognitive, social, and emotional development.
Relationships with parents and other caregivers are critical to a baby’s early development.

• The capacity to **recognize a caregiver’s voice, smell, and face** develops around three months of age.

• Parents and caregivers may also need time with a new baby to **identify and intervene** in a variety of developmental difficulties.
  • This is especially important for caregivers of infants who are considered at high risk, such as babies born preterm or at low birth weights and those who have illnesses or birth defects.

• **Fathers** who take two or more weeks off after the birth of a child are more involved in that child’s direct care nine months after birth than fathers who take no leave.
  • Involved fathers also promote children’s **educational attainment and emotional stability**.
  • And, a father’s involvement in a newborn’s care in the first six months can mean both **mother and baby sleep better**.
A period of paid leave after the birth of a child contributes to the healthy development of infants and toddlers.

- Researchers conservatively estimate that providing 12 weeks of job-protected paid leave in the United States would result in nearly **600 fewer infant and post-neonatal deaths per year**.

- Time at home with newborns, infants, and toddlers gives parents the time they need to **breastfeed, attend well-child medical visits**, and ensure that their children receive all necessary **immunizations**, and may have long-term benefits for children’s health.

- California’s statewide paid family leave program is associated with improved health outcomes for children in early elementary school, including reduced issues with **maintaining a healthy weight, ADHD and hearing-related problems**, particularly for less-advantaged children, likely due to **reduced prenatal stress**, **increased breastfeeding**, and **increased parental care** during infancy.

- Time for parents to provide care facilitates the **early detection of potential developmental delays** at a time when problems can be most effectively addressed, and interventions identified to minimize them.
A period of paid leave after the birth of a child contributes to the healthy development of infants and toddlers.

- Studies show that paid leave yields higher rates and longer periods of breastfeeding, which reduces the rates of childhood infections.
- Paid family leave programs in California and New Jersey, where mothers take an average of 12 weeks of paid personal medical leave and family leave combined, increased the likelihood of exclusive breastfeeding at six months, the duration recommended by the American Academy of Pediatrics.
- In low-income families in New Jersey, new mothers who use the state paid leave program breastfeed, on average, one month longer than those who do not use the program.
Paid leave – at a child’s birth or adoption and as they grow – improves outcomes for the entire family, including parents and caregivers.

- Each week of paid leave up to 12 weeks reduces the odds of a new mother experiencing symptoms of **postpartum depression**. New Jersey’s paid leave program was strongly associated with improvements in **new mothers’ physical health**.
- Parents who use California’s paid leave program report that leave has a positive effect on their ability to care for their new children and **arrange child care**.
- And in Rhode Island parents who use the state program are much more likely to report higher satisfaction with their **ability to care** for their new children and **arrange child care**, **better health**, and **lower general stress**, compared to parents who do not use the program.
- Preliminary research in California suggests that paid leave may also help **prevent child maltreatment**, perhaps by reducing risk factors such as parental stress and depression.
Parents also need paid family and medical leave when other situations require family caregiving. For example, the rates of childhood cancer have been increasing over the past 20 years.

- Almost half of all pediatric cancer occurs during early childhood.
- Families who care for a child with cancer incur considerable costs due to travel, reduction or loss of parental employment, out-of-pocket expenses, and inability to draw on assistance programs to supplement or replace lost income.
- Babies and toddlers live within a family structure with multiple caregiving needs.
- True “parental leave” includes being at your 18 month old’s bedside after open heart surgery – not just bonding with a newborn.
Paid leave policies can benefit employers, taxpayers, and the economy, now and in the future.

- When parents can attend to a child’s early medical needs, **infant mortality and the occurrence and length of childhood illnesses are reduced**, which in turn lowers private and public health expenditures.

- Paid leave can give parents and other caregivers time to search for **quality child care** that meets the unique needs of their families, thereby facilitating **greater productivity** when they return to their jobs after leave.

- Positive, consistent relationships during a child’s early years yield confident individuals who are better equipped for success in school and in life, paving the way for a **higher quality workforce and strong economic growth**.
Paid Leave & Child Well-Being

Research in Action

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Movement  Models  Momentum
Paid Leave Intended Consequences

**STRENGTHEN:**
- breastfeeding
- bonding with infants
- jobs/economic well-being
- women's workforce attachment
- infant brain development
- role of dads
- vaccinations
- senior independence
- healing

**LOWER:**
- maternal mortality
- infant mortality
- racial health disparities
- premature births
- inequality
- infant care costs
- family instability

GET THE FACTS:
familyvaluesatwork.org/facts
Rx for Paid Leave in New York
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