A 12 Country Examination of the Relationship Between Family Leave Policies and Infant Mortality, Maternal Mental Health, and Organizational Outcomes

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Abstract

This article examines the potential relationship between family leave time and monetary compensation for maternity leave across 12 developed countries, and the subsequent outcomes such as rates of infant mortality, data on postpartum depression, and organizational financial impacts as a result of these policies and consequences. At the time of this writing, during a global pandemic, the United States stands alone among the 12 as the only industrialized country with no national paid family leave policy, and as such presents an interesting case study when compared to other countries. The article compares the US Family Medical Leave Act (FMLA) provisions to maternity leave policies in 11 other countries and examines the data for the outcomes listed above. Furthermore, the article delves into the potential impact financial and job stress has on postpartum depression rates. Finally, it discusses how paid family medical leave can produce large organizational gains in several different financial measures.
Introduction

The United States is the only industrialized country with no national paid family leave policy. According to the Department of Labor (2012), paid family leave, or the Family and Medical Leave Act (FMLA) as it is referred to in the U.S., is a leave policy that entitles eligible employees of covered employers to take 12 weeks of unpaid, job-protected leave for medical reasons such as giving birth or caring for a sick relative.

All other industrialized countries offer some type of paid leave, usually maternity leave, and these policies typically cover a longer amount of time off than FMLA, and offer financial support to cover lost wages when caring for a newborn or adopted child. In addition, many of these countries also offer a form of paternity leave, meaning fathers or domestic partners may also be eligible to take paid leave to care for their newborn child.

Over the years, research shows that longer paid maternity leave provides many benefits to mothers, children, and families (Winegarden & Bracy, 1995; Ruhm, 2000; Chatterji & Markowitz, 2005). Winegarden and Bracy (1995) and Ruhm (2000), for example, found evidence to support that longer paid maternity leave is associated with reductions in infant mortality. Infant mortality occurs when an infant dies before their first birthday. According to the Center for Disease Control and Prevention (CDC), Infant mortality rates tell a great deal of information about maternal and infant health, but they are also an important marker of the overall health of a society (CDC, 2017). Paid maternity leave is associated with decreased infant mortality rates for a variety of reasons. For example, parents who are offered paid leave are more likely to take time off work, breast-feed, extend the duration of breast-feeding, and to adhere to well-baby check-ups and immunization schedules (Patton et al., 2017)

A longitudinal study of European countries and the U.S. and Japan found that 10 weeks of paid leave reduced infant mortality rates by 1-2% while 20 and 30 weeks of paid leave reduced rates by 2-4%, and 7-9%, respectively (Tanaka, 2005). Figure 1 compares the 12 countries in this study and their infant mortality rates as of 2018.
Figure 1. Infant Mortality Rates from 12 Developed Countries.


Growing literature has examined the relationship between the length of maternity leave mothers take and women’s experiences with postpartum depression (also referred to as maternal mental health). Postpartum depression is a depression that occurs within four weeks of childbirth and can have lasting effects up to 12 months after childbirth. While its specific pathogenesis is unknown, proposed contributors to PPD are hormonal changes, genetic factors, social factors, and negative life events (Stewart & Vigod, 2016). Postpartum depression may eventually interfere with a mother’s ability to care for her baby and handle other daily tasks. Its symptoms include difficulty bonding with one’s baby, sleep disturbance (beyond that of caring for a newborn baby), anxiety and irritability, and feelings of being overwhelmed (Mayo Clinic).

The absence of paid maternity leave policies in the U.S. forces women to choose between returning to work before or after the permitted leave period, or leaving their job to stay at home for a longer period, potentially requiring them to take a new job at a lower wage (Andres et al., 2016). For management purposes, employee turnover disrupts productivity-related outcomes and reduces financial performance (Hom, et al., 2017).
Because of this, it can be argued that organizations perform better with turnover related outcomes when national paid maternity leave is available through reduced turnover, increased productivity, and improved financial performance. Another way to examine the productivity of an economy is through a country’s Gross Domestic Product (GDP). Figure 2 compares all 12 countries GDP per capita.

**Figure 2.** Gross Domestic Product Per Capita in US Dollars.

![Gross Domestic Product Per Capita](https://data.oecd.org/gdp/gross-domin-1.png)


This paper aims to educate and inform people of the benefits paid maternity leave provides women, not only in regard to their mental health, but as well as their contributions to the workforce. This paper studies the outcomes of paid family leave on infant mortality, maternal mental health as it relates to postpartum depression and stress, and overall organization health in the United States as well as eleven other industrialized countries. The first section of this paper addresses the outcomes in the U.S. The second section addresses how the eleven other countries offer paid maternity leave, and the associated outcomes. Finally, the last section addresses the potential policy changes for the U.S., and how doing so would provide substantial benefits to the U.S. through decreased infant mortality rates, postpartum depression and stress, and the boost to the economy and GDP.
Maternity Leave in the United States

The Family and Medical Leave Act in the U.S. allows mothers to take unpaid time off of work to care for their newborn child. There are some issues with the policy, however, including the many guidelines the company must follow in order for their employees to qualify to take it. For instance, only companies with 50 or more employees are required to provide leave, and employees must have been with the same employer for a year or more and worked at least 1,250 hours in the first year. (Jorgensen & Appelbaum, 2014). Because of this, only 56% of women with small children are granted time off to care for a newborn child (Andres et al, 2016). This means 44% of all working mothers work for companies that do not require FMLA to be given to their employees because those companies do not fall into the standard guidelines. Because of the lack of access to paid maternity leave, one in four mothers in the U.S. return to work just 10 days after giving birth (Paidleave.us, 2020).

While the U.S. has no national paid maternity leave policy, states and organizations are able to implement their own policies. California, New Jersey, and Rhode Island have all passed legislation that provides paid maternity leave for residents. Since implementing paid maternity leave, these states have seen higher usage rates, especially among workers with lower-wage jobs (Milkman & Appelbaum, 2013). Research from a 2017 study found that women who took over 12 weeks of paid leave saw nearly a 75% decrease in the odds of having their infant re-hospitalized after giving birth (Jou et al., 2017).

Studies done in the U.S. have found longer paid maternity leave is associated with lower rates of postpartum depression (Chatterji & Markowitz, 2005; Kornfiend & Sipsma, 2017; Jou et al., 2017; Mandal, 2018). A 2017 study done in California found that a six-week increase in paid maternity leave was associated with improvements in mothers’ self-rated health. The same study found that women who took partially paid leave experienced a nearly 50% reduction in the odds of seeing a mental health professional after giving birth. Additionally, women who took over 12 weeks of paid leave saw a 75% decrease in odds of seeing a mental health professional compared to women that did not take any leave at all (Jou et al., 2017).

Chatterji and Markowitz (2005) also found that among employed mothers of infants, delaying the return to work due to maternity leave decreases the number of depressive symptoms they have. In the same study, they found that a one-week increase in the length of paid maternity leave would reduce a scale of depressive symptoms on average by 6-7% (Chatterji & Markowitz, 2005). This provides support for the idea that the length of paid maternity leave has benefits on maternal mental health.
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International Maternity Leave Policies

The U.S. is one of only eight countries in the world, and the only OECD (Organization for Economic and Co-operation and Development) country without a national paid parental leave policy. The OECD data further shows that countries who offer paid parental leave do so for an average of 45 weeks, with a wage replacement rate of 55–100 percent. Also, the U.S. is one of the few high-income countries without a national family caregiver or medical leave policy [https://bipartisanpolicy.org/explainer/paid-family-leave-across-oecd-countries/#:~:text=Currently%2C%2024%20out%20of%2036,100%20percent%20(Figure%201)].

For the purpose of this paper, the other countries: Australia, Canada, Chile, Denmark, France, Germany, Ireland, the Netherlands, Norway, Switzerland, and the United Kingdom, leave policies were analyzed and compared to study infant mortality rates, postpartum depression, and GDP. In general, these countries: have the most OECD research data available. Table 1 compares all 12 countries and their policies.

Table 1. Country Data by Leave, Compensation, Funding Source, and Total Leave, By Length of Leave.

<table>
<thead>
<tr>
<th>Countries</th>
<th>Number of Paid Leave Weeks Given</th>
<th>Percentage of Average Salary Paid</th>
<th>Funding</th>
<th>Total Leave Given* (In weeks)</th>
<th>Paternity leave?</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>39</td>
<td>90%</td>
<td>Employer</td>
<td>52</td>
<td>Yes</td>
</tr>
<tr>
<td>Ireland</td>
<td>26</td>
<td>$245-weekly rate</td>
<td>Social insurance fund</td>
<td>42</td>
<td>Yes</td>
</tr>
<tr>
<td>Norway</td>
<td>18 or 22*</td>
<td>18 weeks at 100% 22 weeks at 80%</td>
<td>General taxation</td>
<td>18 or 22</td>
<td>Yes</td>
</tr>
<tr>
<td>Australia</td>
<td>18</td>
<td>49% of female wage, 42% of male wage</td>
<td>Government general revenue</td>
<td>18</td>
<td>N/A</td>
</tr>
<tr>
<td>Chile</td>
<td>18</td>
<td>100%</td>
<td>Health Insurance</td>
<td>18</td>
<td>Yes</td>
</tr>
<tr>
<td>Denmark</td>
<td>18</td>
<td>Not to exceed DKK 4,717 per week.</td>
<td>General taxation</td>
<td>18</td>
<td>Yes</td>
</tr>
<tr>
<td>France</td>
<td>16</td>
<td>100%</td>
<td>Health insurance</td>
<td>16</td>
<td>Yes</td>
</tr>
<tr>
<td>Netherlands</td>
<td>16</td>
<td>100%</td>
<td>Unemployment fund</td>
<td>16</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>15 or 18**</td>
<td>55%</td>
<td>Employers and employees</td>
<td>15</td>
<td>No</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Country</th>
<th>Weeks Paid Leave</th>
<th>Customized Payment</th>
<th>Mother's Health Insurance and Employer</th>
<th>Weeks Unpaid Leave</th>
<th>Customized Leave Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>14</td>
<td>100%</td>
<td>Mother's health insurance and employer</td>
<td>14</td>
<td>No</td>
</tr>
<tr>
<td>Switzerland</td>
<td>14</td>
<td>80%</td>
<td>Loss of Earnings compensation fund</td>
<td>14</td>
<td>No</td>
</tr>
<tr>
<td>United States</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Compilation of 2018 data from OECD (OECD.org).

*Variation depends on payment level the mother chooses.
**Variation in weeks of leave offered depends on the jurisdiction (or province) the mother lives in.

**Synopsis by Country, Alphabetically**

Australia offers 18 weeks of paid maternity leave for working mothers. They also offer 12 months of unpaid leave, which can be taken by both parents. In order to eligible for paid maternity leave, employees must have worked for the company for at least 10 months prior to giving birth, as well as be an Australian resident. Additionally, they must make less than AUD$150,000 per year. The payment is offered at 49% of the mother's average full-time earnings. It is funded through general revenue from the Australian Government, which means individual employers do not supply the funds (Whitehouse, et al., 2019).

When comparing rates of infant mortality, the OECD, found that Australia has an infant mortality rate of 3.3 babies for every 1,000 births (OECD, 2018), compared to the U.S which was an infant mortality rate of 5.8 child for every 1,000 births.

Australia is the most recent country to pass legislation providing national paid maternity leave benefits. They introduced the paid leave in 2011; prior to that mothers received 12 months of unpaid leave. A 2017 study found that mothers who gave birth after the paid leave had be put into place had better mental and physical health compared to mothers who gave birth before the policy was available (Hewitt et al., 2017).

A 2010 Australian National Infant Feeding Survey found that of the 111,000 mothers reporting being diagnosed with depression, 50% of them reported their depression to have started after giving birth (Australian Institute of Health and Welfare, 2012). A 2015 systematic review found that Australian mothers who took more than 13 weeks of paid leave had 76% lower odds of psychological distress compared to mothers who took no leave at all (Aitken et al., 2015). In a 2012 study, researchers found longer paid leave duration was also associated with lower maternal psychological distress two to three years after giving birth (Whitehouse et al., 2012). In comparison, Australia has a GDP
US/Capita of $53,663, while the U.S. has a GDP/capita of $62,853. The rest of the countries in this comparison will list their GDP in comparison to the U.S. data above.

In Canada, mothers receive 15 to 18 weeks of paid maternity leave, depending on the province the mother lives in. The average payment is 55% of the mother’s average earnings. The benefits are funded by premiums paid for by the employee and the employer. Depending on the province you live in, there are also local variations of maternity leave. For example, Québec offers benefits of 70% of average weekly income for 18 weeks of maternity leave (Doucet et al., 2019). In terms of infant mortality rates, Canada has 4.8 infant deaths for every 1,000 births (OECD, 2018). Canada has a GDP/capita of $50,076.

The mandated maternity leave policy in Chile allows women to take 18 weeks of paid leave. Of those 18 weeks, 6 weeks are to be taken before the birth, and the remaining 12 are to be taken after. Maternity leave is funded through the mother’s health insurance, and they receive 100% of their salary while on leave. Between 2013 and 2016, 40% of mothers were eligible for paid leave, and the female employment rate in Chile is 48.5% (Bosch, 2019). Note: Chile is the only country analyzed for this paper that has an infant mortality rate higher than the U.S. For every 1,000 births, Chile has an infant mortality rate of 7 (OECD, 2018). In addition, one in 10 Chilean women suffer self-reported postpartum depression (Jadresic, et al., 2007). Chile has a GDP/capita of $24,709.

Denmark also provides women with 18 weeks of paid maternity leave. Four weeks are to be taken before the birth, and the remaining 14 weeks are taken after. Their policies are extensive, and they are regulated by national legislation and collective agreements in the labor market, as well as at the organizational level. Because of this, 84% of all working mothers are provided paid maternity leave. In 2006, it became obligatory for private employees to be members of a leave fund, which would ensure they would be compensated if they take a maternity leave (Bloksgaard & Rostgaard, 2019). Denmark has an infant mortality rate of 3.8 for every 1,000 births (OECD, 2018), and a GDP/capita of $57,215.

Mothers in France are provided with multiple levels of maternity leave according to the number of children they have. First-time mothers are granted 16 weeks, mothers who already have children are granted 26 weeks, and mothers expecting twins are granted 34 weeks (Boyer, & Fagnani, 2019). They receive 100% of their salary while on leave, and it is funded through the woman’s health insurance. France has an infant mortality rate of 3.8 for every 1,000 births (OECD, 2018), and a GDP/capita is $46,242.

In Germany, mothers receive 14 weeks of paid maternity leave. Of those 14 weeks, six weeks are taken before the birth, and the remaining eight are taken after. They receive 100% their mean income from the three months before the leave is taken. It is paid for by the mother’s health insurance and her employer. Mothers receiving unemployment benefits are also eligible for paid leave benefits from their health insurance (Reimer, et al., 2019).
Germany offers parental leave as well, which is funded by the federal government. It pays typically up to 65% of the parent’s income. As of 2015, 24.1% of mothers and 1.5% of fathers with children under the age of six were on parental leave (Reimer et al., 2019). Germany has an infant mortality rate of 3.3 (OECD, 2018), and a GDP/capita of 55,741.

Ireland offers 26 weeks of paid maternity leave for mothers. The funding comes from the Social Insurance fund (similar to U.S. Social Security), which is financed by contributions from employees and employers. Ireland has an infant mortality rate of 3 for every 1,000 births (OECD, 2018). Ireland has a GDP/capita of $84,575.

The Netherlands provides mothers with 16 weeks of paid maternity leave. They receive 100% of their earnings while on leave, and it is funded through an unemployment fund. It is required to take at least four to six weeks of leave after giving birth, so researchers believe 100% of mothers take some amount of maternity leave (Dulk & Yerkes, 2019). The Netherlands also provide “Birth Leave,” which is a 100% paid leave available for the mother’s partner, regardless of gender (Dulk & Yerkes, 2019). The Netherlands experiences an infant mortality rate of 3.6 for every 1,000 births (OECD, 2018) and a GDP/capita of $57,564.

Norway offers two lengths of paid maternity leave. Mothers can take 18 weeks of leave and receive 100% of their earnings, or 22 weeks of leave and receive 80% of their earnings. This means parents have the option to take 22 weeks of leave at a reduced percentage of their income or take 18 weeks of leave and receive their full income. It is funded through general taxations. In addition to paid maternity leave, Norway also offers paid parental leave. Parents may choose to take off 46 weeks and receive 100% of their earnings during that time or take off 56 weeks receiving 80% of their earnings. As of 1997, this allowed 70% of fathers to also take some sort of paid leave (Brandth & Kvande, 2019). Of the countries analyzed for this research, Norway has the lowest infant mortality rate at 2.3 for every 1,000 births (OECD, 2018). Their GDP/capita is $67,614.

Mothers in Switzerland receive 14 weeks of paid maternity leave, starting the day they go into labor. They receive 80% of their earnings while on leave, and it is funded by the Loss of Earnings Compensation Fund. There are few requirements to take leave, however, research shows only 70% of mothers do (Valarino & Nedi, 2019). Switzerland has an infant mortality rate of 3.5 for every 1,000 births (OECD, 2018), and a GDP/capita of $69,358.

The United Kingdom offers mothers 39 weeks of paid maternity leave. Mothers receive 90% of their average earnings over the course of their time off work. The leave is paid for by the employer, however it is possible for the employer to claim back a portion of the payment. One stipulation to the UK’s leave benefits is the mother must be employed, which excludes self-employed women from accessing paid maternity leave (O’Brien et al., 2019). The UK has an infant mortality rate of 3.9 for every 1,000 births (OECD, 2018), and a GDP/capita of $46,885.
Data Summary

A 2015 study done surveying mothers from Northern, Eastern/Central, Western, and Southern Europe found that depression in older age is linked to maternity leave policies during the critical period of the birth of a first child. The research suggests that maternity leave benefits have beneficial effects that extend beyond documented earlier years (Avendano et al., 2015).

The 11 OECD countries in this study (sans the US) all have paid maternity leave policies, ranging from 13 weeks to 39 weeks. They are all funded through either employers, the employees, the government, or health insurance. Chile is the only country with a higher infant mortality than the U.S. There are several things that could cause this, one being the longer period of paid maternity leave all countries provide. Interestingly, while a majority of these 11 countries have a lower GDP/capita than the U.S., they are still financially able to provide paid maternity leave to their citizens.

Policy Suggestions for the United States

There are several reasons the United States should implement paid maternity leave policies, both for the health of all involved and the financial benefits, rather than the costs, to organizations. A 2012 study found that the benefits of maternity leave may not even be apparent until at least 11 weeks postpartum, suggesting the benefits will not be shown without extended leave periods longer than 12 weeks (Andres et al, 2016). For this reason, many researchers suggest more than 11 weeks of paid maternity leave are required in order to obtain substantial benefits.

Organization Considerations

From a management perspective, the cost of turnover for employees is high. A 2012 study completed by the Center for American Progress found that companies typically pay about one-fifth of an employee’s salary to replace that employee (Boushey & Glynn, 2012). Therefore, because many women who do not have access to paid maternity leave do not return to work after giving birth, companies are spending more in the long run on costs associated with turnover, such as the training and development of replacement employees (Skiba, 2016). For employees earning on average $75,000 per year or less, the average cost of turnover ranges from 10 to 30 percent (Boushey & Glynn, 2012).

The U.S. Department of Labor estimates there would likely be 5.5 million more women in the labor force if women in the U.S. had similar labor force participation rates as Canada and Germany, which would increase additional US economic activity by an estimated $500 billion (PL+US, 2019). Twenty-six weeks of paid leave would increase U.S. women’s labor force participation by a 5% increase in the GDP (paidleave.us). According to The Bureau of Labor Statistics, in order to encourage women to stay in the labor force, more generous policies for mothers need to be enacted (Karageorge, 2019). Furthermore, paid-
maternity leave increases a woman’s lifetime earnings, which directly raise their labor force participation rates. Research from a 2001 study found that adding one extra week of leave increases women’s labor force participation by 0.60 to 0.75 percentage points for women ages 20-34 (Winegarden & Bracy, 2001).

With regards to other benefits offered to help parents after birth, France provides paid paternity leave for fathers. Parents also receive a childcare benefit, called PreParE, and it is paid based on income. This allows parents to pay for childcare and ensure they can return to work without worrying about where their child is (Boyer & Fagnani, 2019). Switzerland proposed legislation to require the Loss of Earnings Compensation Act to fund breastfeeding breaks for mothers. As it stands now, mothers are allowed paid time to breastfeed at work, however it is currently being funded by the mother’s employer (Valarino & Nedi, 2019).

Limitations and Future Research

As with any research, there are some limitations to this paper. One Australian study found that, as expected, having a history of depression was associated with an increased risk of postpartum depression. Therefore, this could influence the results of the study if mothers previously experienced depression (Cooklin et al., 2010).

Although research shows the benefits of taking maternity leave, when given the option, many women are apprehensive to do so. Some women think choosing to care for their child may impede their ability to advance in their career and maintain their status with their employer, therefore effecting their wages over the long-run if they are seen as a “temporary employee” in the labor market (Vahratian, 2009). It has also been argued that a potential issue with providing paid maternity to women in the workforce is the worry that employers may decide not to hire women because they fear they will have to pay their maternity leave in the future (Allen, 2015). These issues create multi-layered avenues for further research.

Conclusion

The United States is the only industrialized country that does not offer paid maternity leave. This makes it difficult for mothers to choose between caring for a newborn child and going back to work for financial reasons. Eleven other industrialized countries analyzed for this paper offer paid maternal and/or paternal leave, ranging from 14 to 39 weeks.

Of all of those countries, only one, Chile, has a higher rate of infant mortality that the U.S. (OECD, 2018). In general, paid maternity leave has been found to decrease infant mortality rates (Jou et al., 2017). Longer time off of work without financial stress may make it easier to care for yourself, as well as your infant.
In many studies, paid maternity leave is associated with lower levels of postpartum depression among working women. It allows women to take paid time off of work to care for their newborn child without worry about financial expenses or job security. Maternity leave is also strongly associated with women’s return to the labor force following childbirth, which reduces loss of employment-related earnings long-term (Jou et al., 2017).

The fact that the US falls far behind other countries in how they care for working families is troubling, to say the least. Providing paid maternity leave in the US, even at a basic level, has multiple (and research supported) perceived and practical benefits, like mother’s mental health and infant physical health, and from an organizational perspective, increased female labor force participation, lower organizational turnover costs, and increased GDP.
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https://www.mayoclinic.org/diseases-conditions/postpartum-depression/symptoms-causes/syc-20376617?page=0&citems=10


